



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 8454/1

File Number: DWERVT2647

Duration of Permit: From 29 August 2019 to 29 August 2021

PERMIT HOLDER

Gold Estates Holdings Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 15 on Diagram 30747, Hammond Park

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.86 hectares of native vegetation within the area hatched yellow on attached Plan 8454/1.

CONDITIONS

1. 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.

2. Weed control and Dieback

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 machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. Records must 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); and
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit.
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 2 of this Permit.

4. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 3 of this Permit, when requested by the *CEO* or delegated officer

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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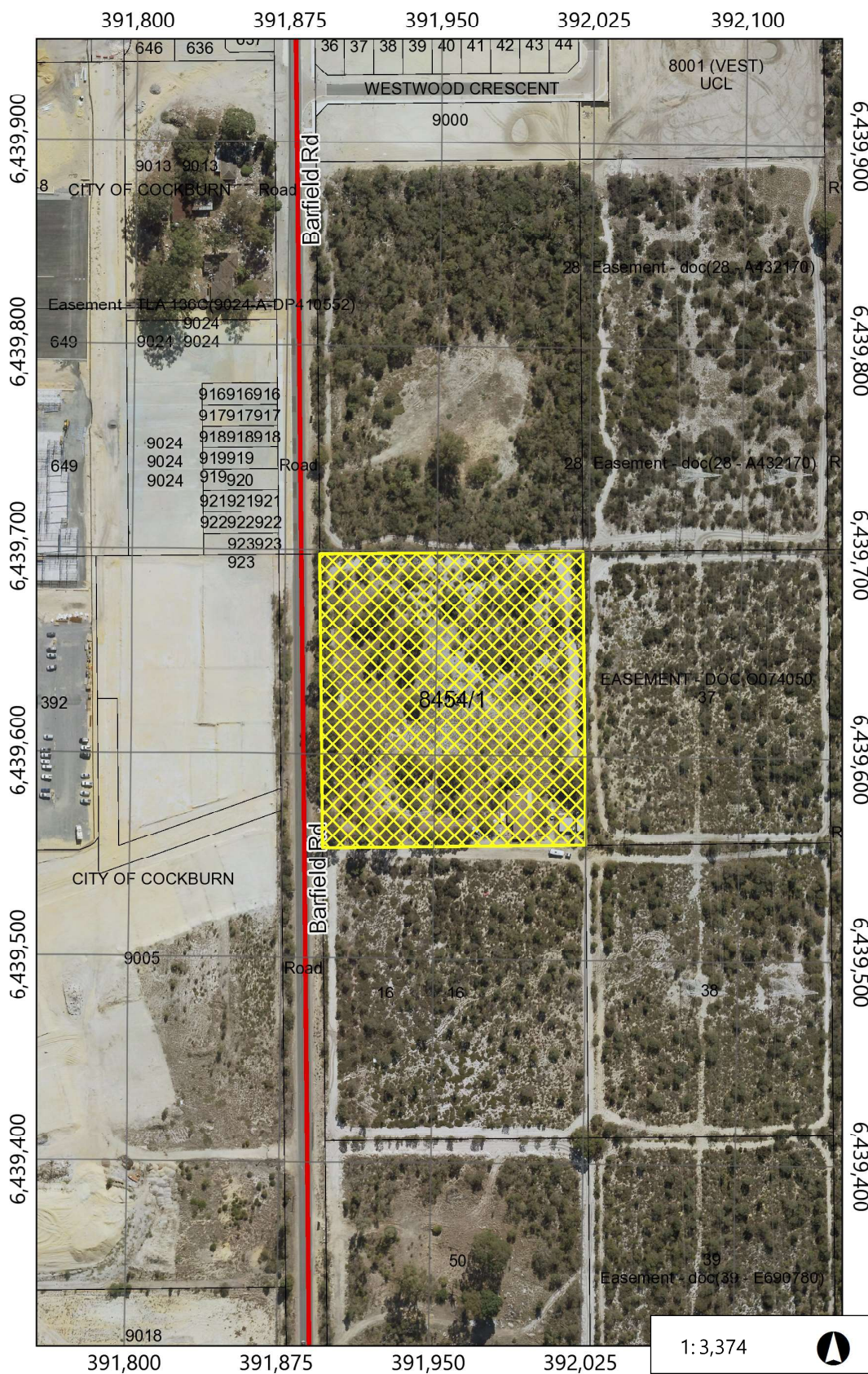
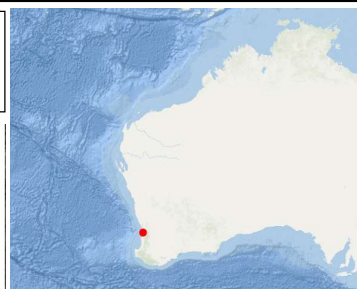
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MANAGER

NATIVE VEGETATION REGULATION

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

30 July 2019



- Legend**
- CPS areas approved to clear
 - Land Tenure (LGATE_226) - SLII
 - Local Government Authorities
 - Roads - State Roads
 - Roads - Major Roads
 - Roads - Minor Roads

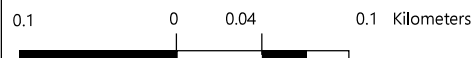
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Officer with delegated authority under
 Section 20 of the Environmental
 Protection Act 1986

Author:

Recipient:



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1. Application details

1.1. Permit application details

Permit application No.: 8454/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Gold Estates Holdings Pty Ltd

1.3. Property details

Property: LOT 15 ON DIAGRAM 30747, HAMMOND PARK
Local Government Authority: COCKBURN, CITY OF
DWER Region: SWAN
DBCA District: SWAN COASTAL
Localities: HAMMOND PARK

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.86		Mechanical Removal	Bulk earthworks

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 26 July 2019

Reasons for Decision: The clearing permit application was received on 16 May 2018 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing is not likely to be at variance to the clearing principles and will have minimal impact on biodiversity values within the local area.

The Delegated Officer determined that the proposed clearing may increase the risk of weeds and dieback being introduced or spread into adjacent native vegetation. Weed management measures will minimise impacts to adjacent native vegetation.

The Delegated Officer also noted that the proposed clearing will impact on a small, highly disturbed portion of a Commonwealth listed Threatened Ecological Community (TEC) (Banksia woodlands of the Swan Coastal Plain) that occurs within the application area. Based upon the size (0.28 hectares), and historical disturbance of the portion of the TEC that occurs within the application area, the impacts to the remaining occurrence of this TEC in the local area are not considered to be significant.

2. Site Information

Clearing Description: The application is to clear up to clear 0.86 hectare of native vegetation within a 1.87 clearing footprint within Lot 15 on Diagram 30747, Hammond Park, for the purpose of bulk earthworks for future residential development.

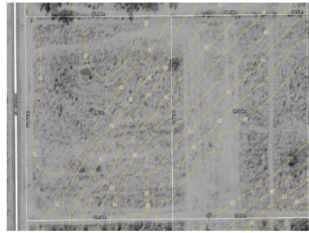
Vegetation Description: The application area is mapped as Heddle vegetation complex:

- Bassendean Complex-Central and South, described as vegetation that ranges from a low open forest and low open woodland of Banksia species *Eucalyptus tottiana* (Pricklybark) to low woodland of Melaleuca species and sedgelands which occupy the moister sites. (Heddle et al., 1980)

A vegetation assessment provided by the applicant identified four vegetation types within the application area (Strategen, 2019):

- (BaBm) – *Banksia attenuata*, *B. menziesii* Low Open Woodland over *Xanthorrhoea preissii* Open Shrubland (0.28 hectares);
- (Xp) *Xanthorrhoea preissii* Open Shrubland (0.12 hectares);
- (EmBaBm) *Eucalyptus marginata*, *B. attenuata*, *B. menziesii* Low Woodland over weeds (0.45 hectares); and
- (CL) Cleared areas including tracks/firebreaks (0.99 hectares)

The site was previously cleared in 1974 and has regrown as indicated within the images below (Strategen, 2019);



September 1974



February 1995



April 2019

Vegetation Condition:

Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

To

Completely Degraded; No longer intact, completely/almost completely without native species (Keighery, 1994).

The Strategen (2019) vegetation assessment determined the vegetation condition to be proportionately comprised of the following;

- Good - 0.28 hectares;
- Degraded - 0.12 hectares; and
- Completely degraded - 1.47 hectares (includes areas of no vegetation)

The application has been highly disturbed with the vegetation present considered to be regrowth.

Soil and Landform Type:

The application area is mapped within the following land subsystems: Bassendean B1 Phase (212Bs_B1) described as extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than two metres; Banksia dominant.

Comment:

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

Figure 1: Map of application area



Figure 2: Photographs of vegetation within the application area (Terrestrial Ecosystems, 2016)



Photo 1: Vegetation type BaBm



Photo 2: Vegetation type Xp



Photo 3: Vegetation type CL



Photo 4: Vegetation type EmBaBm

3. Assessment of application against clearing principles

The application is to clear 0.86 hectares of native vegetation within a 1.87 clearing footprint for the purpose of bulk earthworks for future residential development.

As discussed under section 2, four vegetation types were identified within the application area, with the vegetation condition ranging from completely degraded to good (Keighery, 1994).

According to available databases, several occurrences of the TEC 'Banksia woodlands of the Swan Coastal Plain' occur within the local area, including having been mapped as occurring within the application area. This ecological community is listed as a Priority 3 Priority Ecological Community (PEC) by DBCA and as a TEC under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. The Approved Conservation Advice for the TEC states that to be considered representative of the TEC, a remnant in the Swan Coastal Plain bioregion must include at least one of four *Banksia* species being candlestick banksia, *Banksia menziesii* (firewood banksia), *Banksia prionotes* (acorn banksia) and/or *Banksia ilicifolia* (holly-leaved banksia); must include an emergent tree layer often including marri, jarrah, or tuart, and other medium trees including *Eucalyptus tottiana* (pricklybark), *Nuytsia floribunda* (WA Christmas tree), western sheoak, *Callitris arenaria* (sandplain cypress), *Callitris pyramidalis* (swamp cypress) or *Xylomelum occidentale* (woody pear); and must include an often highly species-rich understorey (Threatened Species Scientific Committee, 2016). A flora and vegetation survey determined that approximately 0.28 hectares in the north-east corner of the application area may be a representation of the TEC (pgv Environmental, 2014).

Condition thresholds provide guidance on when a patch of an ecological community retains sufficient conservation values to be considered a 'Matter of National Environmental Significance', as defined under the EPBC Act, and to be considered as part of the TEC minimum patch sizes by condition (Keighery, 1994) are 'pristine' – no minimum patch size applies; 'excellent' – 0.5 hectares; 'very good' – 1 hectare; 'good' – 2 hectares (Threatened Species Scientific Committee, 2016).

Based upon this and the specifications around the minimum patch size, when considered in isolation the portion of the TEC within the application area would not meet these requirements due to its small size and condition. However, this portion of the TEC forms part of a broader area of the mapped TEC to the north and south of the application area which meets the criteria as being representative of the TEC (DWER, 2018). The patch size of the mapped TEC is 23.043 hectares which includes the 0.28 hectares within the application area. Notwithstanding, noting the size of the TEC within the application area and that this has been previously cleared, the proposed clearing is unlikely to have a significant residual impact on the remaining occurrence of this TEC in the local area. It also considered that based on the historical disturbance, the application area is not likely to comprise a high level of biological diversity.

According to available databases, there are no state listed TEC's that occur within the application area. The flora and vegetation survey of the application area undertaken by pgv Environmental (2014) determined the mapped vegetation types were not a representation of any state listed TEC's that occur within the local area.

According to available databases received from the Department of Biodiversity Conservation and Attractions (DBCA), 22 priority flora species and five threatened flora species have been recorded within the local area. Of these, one priority flora species (*Dodonaea hackettiana* (P4)) has been mapped as occurring within the same vegetation and soil profile as the application area. A flora and vegetation survey of the application area undertaken by pgv Environmental (2014), also identified suitable habitat for three flora taxa species within the application area; *Dodonaea hackettiana* (P4), *Thysanotus glaucus* (P4) and *Caladenia huegelii* (threatened). However, a vegetation and flora survey of the application area did not record the abovementioned flora species to be present within the application area (pgv Environmental, 2014). The flora survey was undertaken in September, within the usual flowering period for *Dodonaea hackettiana* and *Caladenia huegelii*, however, outside of the usual flowering time for *Thysanotus glaucus*. Although the timing of the survey was outside of the flowering period for *Thysanotus glaucus*, the species would have been identifiable without reproductive characteristics (flowers or fruit) (pgv Environmental, 2014)

According to available databases, 16 fauna species listed as specially protected under the *Biodiversity Conservation Act 2016*, 16 priority fauna and 29 fauna species protected under international agreement have been recorded within the local area (DBCA, 2007-). Based upon the vegetation present as discussed under section 2, the application area could provide habitat for the following conservation significant fauna species (Strategen, 2019); Carnaby's cockatoo (*Calyptorhynchus latirostris*), Baudin's cockatoo (*Calyptorhynchus baudinii*), forest red-tailed black cockatoo (*Calyptorhynchus banksia naso*), lined skink (*Lerista lineata*), black striped snake (*Neelaps calonotos*), Rainbow bee-eater (*Merops ornatus*) and southern brown bandicoot (*Isodon obesulus*). Whilst the application area may provide suitable habitat for the above mentioned species, it is not considered significant.

The lined skink inhabits sandy coastal heath and shrubland, this includes banksia / eucalypt woodlands. The black striped snake occurs on dunes and sand plains vegetated with heaths and eucalypt/banksia woodlands. This type of habitat is limited within the application area, comprising of a total of 0.73 hectares with approximately 0.45 hectares of the vegetation in a degraded to completely degraded (Keighery, 1994) condition (Strategen, 2018). Based upon the size and condition of the habitat suitable for these species, it is not considered to be significant as the area has been highly disturbed associated with past clearing activities.

The rainbow bee-eater distribution covers the majority of Australia. Noting this, its habitat appears widespread and is not limited to the application area.

The southern brown bandicoot on the Swan Coastal Plain (SCP) prefers dense vegetation cover of which the application has some limited habitat based on this description, however its preferred habitat on the SCP is generally associated with wetlands with dense vegetation where they feed on fruit, seeds, insects and fungi (Strategen, 2019). This type of habitat is not present within the application area.

Black cockatoo species nest in hollows in live or dead trees of tuart, jarrah, marri, *Eucalyptus diversicolor* (karri), *Eucalyptus wandoo* (wandoo), *Eucalyptus salmonophloia* (salmon gum), *Eucalyptus rudis* (flooded gum), *Eucalyptus loxophleba* (York gum), *Eucalyptus accedens* (powder bark), *Eucalyptus megacarpa* (bullich) and *Eucalyptus patens* (blackbutt) (Commonwealth of Australia, 2012). Their preference for foraging is habitat that includes jarrah and marri woodlands and forest heathland and woodland dominated by proteaceous plant species such as *Banksia* sp., *Hakea* sp. and *Grevillea* sp. (Commonwealth of Australia, 2012). A level 1 fauna risk assessment and black cockatoo habitat assessment of Lot 15 and the adjacent road reserve to the west identified seven Jarrah trees with a diameter at breast height (DBH) of ≥ 500 millimetres (DSEWPac 2012). It is noted that only two of these trees occurred within the application area and neither tree had a visible hollow or evidence of use by black cockatoos (Terrestrial Ecosystems, 2016).

The black cockatoo habitat assessment did not identify any evidence of foraging occurring within the application area (Terrestrial Ecosystems, 2016). The assessment also noted the foraging habitat within the application area to be poor as there is a very low abundance of *Banksia* sp. and *E. marginata* in the application area. Noting this and given the size and condition of the foraging habitat suitable for black cockatoos and the high level of disturbance associated with past clearing activities, the application area is not considered to be significant habitat for black cockatoos.

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). In the Perth Metropolitan and Bunbury regions, the Environmental Protection Authority (EPA) has a modified objective to retain at least 10 per cent of the pre-clearing extent of vegetation complexes for defined constrained areas (intensely developed) (EPA, 2008). The remaining extents of native vegetation within the bioregion, local government authority and mapped vegetation associations are above the 10 per cent threshold (Government of Western Australia, 2018). Aerial imagery indicates that the local area retains approximately 35 per cent native vegetation cover. Noting this, the application does not occur in an extensively cleared landscape.

According to available databases, no watercourses or wetlands occur with the application area. Noting this and that the Strategen (2019) vegetation assessment did not identify any wetland vegetation or watercourses within the application area, the proposed clearing will not impact on vegetation growing in, or in association with, an environment associated with a watercourse or wetland.

According to available databases, there are a number of conservation areas (predominately Bush Forever Sites) within the local area. None of these conservation areas are directly adjacent to the application area, and are separated from the application area by other areas of remnant vegetation, housing developments and roads. Noting this, the proposed clearing is not likely to impact on the environmental values of these conservation areas. Although there is unlikely to be impacts to conservation areas from the proposed clearing, the disturbance caused by the proposed clearing is likely to increase the risk of weeds and dieback being introduced into adjacent areas of remnant vegetation. Weed and dieback management practices will assist in mitigating this risk.

As discussed under Section 2, the application area is mapped within Bassendean B1 Phase (212Bs_B1) land subsystems. This land subsystem is mapped at 70 per cent of the map unit having a high to extreme risk of wind erosion (Schoknecht et al., 2004). Noting this and the nature of the sandy soils, the application could potentially contribute to increased wind erosion. However, noting the size of the proposed clearing and that the area has been highly disturbed, the risk of wind erosion is likely to be short term and mitigated once the bulk earthworks have commenced.

According to available databases, no watercourses or wetlands have been mapped within the application area. Groundwater salinity within the application area is mapped at less than 500 total dissolved solids, milligrams per litre. This level of groundwater salinity is classified as 'fresh'. Noting this, the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.

The assessment has concluded that the proposed clearing is not likely to be at variance to the clearing Principles.

Planning instruments and other relevant matters.

The application was advertised on the Department of Water and Environmental Regulation's website on 10 April 2019 for a 21 day submission period. One submission was received during this period. The submission requested for the proponent to retain the 0.28 hectares of vegetation that represents Floristic Community Type 21a – Central *Banksia attenuata* – *Eucalyptus marginata* woodlands which may represent the federal listed Threatened Ecological Community (Submission, 2019).

In response to these concerns, the applicant advised that the 0.28 hectares cannot be retained due to the following reasons;

- Western Power infrastructure (base of powerlines) precludes excavation and sets the level on the eastern boundary of Lot 15;
- an Optus Communications Pty Ltd optic fibre cable (Perth-Adelaide) traverses Lot 37 north-south, just east of the Lot 15, precludes excavation and sets the level on the eastern boundary of Lot 15;
- the site needs to be filled to ensure the gravity sewer functions as designed; and
- the requirement for the road network to tie into the existing levels of Barfield Road, facilitates the need to fill Lot 15 (Strategen, 2019a).

The concerns raised in the submission have been further addressed in the assessment report.

No registered Aboriginal Sites of Significance occur within the application area.

The City of Cockburn (2019) have advised that conditional approval for bulk earthworks within the subject property has been given.

4. References

- City of Cockburn (2019) Advice received in relation to Clearing Permit Application CPS 8454/1 – Development Approval given on Lot 35, for bulk earthworks (DWER Ref:A1805616).
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Biodiversity Conservation and Attractions (DBCA) (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. Accessed September 2018
- EPA (2008) Environmental Guidance for Planning and Development. Guidance Statement No. 33. Environmental Protection Authority, Western Australia.
- Government of Western Australia (2018). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2017. WA Department of Parks and Wildlife, Perth.
- 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.
- Pgv Environmental (2014) Lot 15 Barfield Road, Hammond Park. Flora and Vegetation Survey (DWER Ref:A1780718).
- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Strategen (2019) Lot 35 Barfield Road, Hammond Park. Native Vegetation Supporting Documentation for Clearing Permit Application CPS 8454/1 (DWER Ref:A1780718).
- Strategen (2019a) Lot 35 Barfield Road, Hammond Park. Additional information provided in relation to Clearing Permit Application CPS 8454/1 (DWER Ref:A1805614).
- Submission (2019) Submission received in relation to Clearing Permit Application CPS 8454/1 Gold Estates Holdings Pty Ltd (DWER Ref:A1790635).
- Terrestrial Ecosystems (2016) Level 1 fauna risk assessment and Black-Cockatoo habitat assessment for Lot 15 Barfield Road, Hammond Park (DWER Ref:A1780718).
- Threatened Species Scientific Committee (2016). Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain Ecological Community. Canberra: Department of the Environment and Energy. Available from: **Error! Hyperlink reference not valid.** In effect under the EPBC Act from 16 September 2016.

GIS Databases:

Aboriginal Sites of Significance
DBCA Estate
Groundwater salinity
Hydrography, Linear
Hydrography, Hierarchy
Remnant Vegetation
SAC bio datasets (accessed November 2017)
Soils, Statewide
Topographic contours