



1. Application details

1.1. Permit application details

Permit application No.: 6856/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Polkamp Pty Ltd

1.3. Property details

Property: Lot 1795 on Plan 3315
Lot 1794 on Plan 3315
Lot 1793 on Plan 3315
Local Government Authority: City of Gosnells
DER Region: Greater Swan
DPaW District: Swan Coastal
Localities: Southern River

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 3.24 | | Mechanical Removal | Bulk earthworks |

1.5. Decision on application

Decision on Permit Application: Refuse

Decision Date: 30 June 2016

Reasons for Decision: The applicant applied to clear 3.24 hectares of native vegetation on 25 November 2015 for bulk earthworks, prior to subdivision approval.

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*, and it has been concluded that the proposed clearing is at variance to Principles (f), (g) and (h), may be at variance to Principle (i), and is not likely to be at variance to the remaining Principles.

On 7 April 2016, the applicant was advised of the preliminary assessment findings and advised that a clearing permit was unlikely to be granted. The applicant was invited to submit information demonstrating the ability to avoid or minimise the impacts identified or address the variances identified with the principles for clearing native vegetation. No formal response was received.

The Delegated Officer therefore determined the application based on the information available at the date of the decision.

It is determined that the proposed clearing is within Bush Forever site 464 of which 1.61 hectares is in good to very good condition, will impact native vegetation which is growing in association with resource enhancement and multiple use category wetlands which are hydrologically connected to the adjacent conservation category wetland, and may cause land degradation via wind and water erosion.

The Delegated Officer also noted that planning approval is required from the City of Gosnells for the purpose of the bulk earthworks, and a Negotiated Planning Solution may be required to be submitted to, and approved by, the Department of Planning.

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

| Vegetation Description | Clearing Description | Vegetation Condition | Comment |
|---|---|--|---|
| Beard vegetation association 1001 is described as: Medium very sparse woodland; jarrah, with low woodland; banksia & casuarinas | The applicant proposes to clear 3.24 hectares of native vegetation within a 12.57 hectare footprint over Lots | Completely degraded: No longer intact; completely almost/completely without native species | Vegetation condition was determined via aerial imagery and a level 2 flora and vegetation survey (360 |

(Shepherd et al., 2001).

Hedde vegetation complex Southern River Complex is described as: Open woodland of *Corymbia calophylla* (marri) - *Eucalyptus marginata* (jarrah) - Banksia species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (swamp paperbark) along creek beds (Hedde et al., 1980).

A level 2 flora and vegetation survey was undertaken within the application area by 360 Environmental in October 2015 (360 Environmental, 2015a). A total of six native vegetation associations were recorded within the application area, as follows:

Ac: Open Shrubland regrowth of *Adenanthos cygnorum*, *Eremaea pauciflora*, *Phlebocarya ciliata*, *Lyginia barbata*, *Scholtzia involucrata* dominated by **Ehrharta calycina* and **Briza maxima* (0.91 hectares);

MpCc: Woodland of *Melaleuca preissiana* and *Corymbia calophylla* over *Xanthorrhoea preissii*, *Dasypogon bromeliifolius*, *Adenanthos cygnorum*, *Phlebocarya ciliata*, **Briza maxima* and **Ehrharta calycina* (0.65 hectares);

AdKg: Shrubland of *Adenanthos cygnorum*, *Kunzea glabrescens*, *Jacksonia sternbergiana*, *Regelia ciliata*, *Scholtzia involucrata* and *Phlebocarya ciliata* dominated by grass weeds (0.69 hectares); and

ApPc: Low Open Shrubland of *Acacia pulchella*, *Phlebocarya ciliata*, *Melaleuca thymoides*, *Adenanthos obovatus*, *Eremaea pauciflora*, *Scholtzia involucrata*, *Xanthorrhoea preissii* and *Dasypogon bromeliifolius* dominated by grass weeds (0.94 hectares).

Rc: *Regelia ciliata* (0.02 hectares); and

MpKg: Woodland of *Melaleuca preissiana* over *Kunzea glabrescens*, *Regelia ciliata*, *Phlebocarya ciliata* and *Dasypogon bromeliifolius* (0.03 hectares).

1793, 1794 and 1795 on Plan 3315, Southern River, for the purpose of bulk earthworks.

(Keighery, 1994);

To:

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

Environmental, 2015a) and converted to the Keighery scale (Keighery, 1994).

The application area contains 3.24 hectares of native vegetation within the 12.57 hectare footprint. The remaining 9.33 hectares contains cleared areas and non-native vegetation.

3. Assessment of application against clearing principles

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

Comments

Proposed clearing is not likely to be at variance to this Principle

The applicant proposes to clear 3.24 hectares of native vegetation within a 12.57 hectare footprint over Lots 1793, 1794 and 1795 on Plan 3315, Southern River, for the purpose of bulk earthworks prior to subdivision approval.

Based on aerial imagery and photographs of the vegetation under application (360 Environmental, 2015a), the condition of the vegetation within the application area ranges from completely degraded to very good (Keighery, 1994). Vegetation in good to very good (Keighery, 1994) condition includes 1.61 hectares of:

- vegetation association MpCc, which runs along a drainage line within Lot 1793;
- vegetation association Ac, located within the southern corner of Lot 1793; and
- vegetation associations Rc and MpKg, located along the south-eastern boundary of the application area.

The remaining 1.63 hectares of native vegetation within the application area is in a completely degraded to degraded (Keighery, 1994) condition (360 Environmental, 2015a). There is vegetation in very good to excellent (Keighery, 1994) condition within a conservation category wetland east of the application area.

A level 2 flora and vegetation survey undertaken by 360 Environmental (2015a) recorded a total of six vegetation associations within the application area, with a total of 79 taxa of which 13 were introduced species (360 Environmental, 2015a). Two priority flora species were recorded within the application area, including *Jacksonia gracillima* (priority 3) and *Meeboldina decipiens* subsp. *decipiens* (priority 3). No rare flora were recorded within the application area.

Jacksonia gracillima was recorded at six locations across the application area, and at three locations outside the application area (360 Environmental, 2015a). *Meeboldina decipiens* subsp. *decipiens* was recorded at one location within Lot 1795 (360 Environmental, 2015a). Priority 3 flora species are poorly known, but do not appear to be under imminent threat. Both species have moderate distributions across the Swan Coastal Plain (Western Australian Herbarium, 1998-), and the proposed clearing is not likely to impact the conservation of either priority flora.

No threatened or priority ecological communities (TECs/ PECs) were recorded during the survey conducted by 360 Environmental (2015a). The vegetation proposed to be cleared does not represent a TEC or PEC.

A total of ten threatened and 14 priority fauna species have been recorded within 10 kilometres of the application area (Parks and Wildlife, 2007-), of which three threatened and two priority fauna have a moderate likelihood of occurring within the application area. However, within the application area, good quality fauna habitat is restricted to vegetation in a good to very good condition comprised of 1.56 hectares within the southern corner of Lot 1793.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:

360 Environmental (2015a)
Keighery (1994)
Parks and Wildlife (2007-)
Western Australian Herbarium (1998-)

GIS Database:

- Imagery

(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.

Comments

Proposed clearing is not likely to be at variance to this Principle

The application area is bordered by:

- cleared areas used for residential activities to the west; and
- remnant vegetation within Bush Forever site 464 to the east.

Bush Forever site 464 extends into the application area and includes vegetation in good to very good condition within Lot 1793 and the mostly cleared Lot 1795. This portion of the application area is recognised as an ecological linkage in the Southern River Precinct 3 Environmental Review (ENV Australia, 2006), although recent aerial imagery indicates that the linking vegetation west of the application area has since been cleared.

Within the application area, suitable habitat for fauna is likely to be restricted to the vegetation communities that comprise 1.56 hectares of native vegetation in good to very good condition within Bush Forever site 464.

Of the ten threatened and 14 priority fauna that have been recorded within 10 kilometres of the application area (Parks and Wildlife, 2007-), the vegetation proposed to be cleared may provide foraging habitat for the forest red-tailed black cockatoo (*Calyptorhynchus banksii* subsp. *naso*; rare or likely to become extinct under the

Wildlife Conservation Act 1950 [WC Act]), Carnaby's cockatoo (*Calyptorhynchus latirostris*; rare or likely to become extinct under the WC Act), and Baudin's cockatoo (*Calyptorhynchus baudinii*; rare or likely to become extinct under the WC Act). Further, the vegetation proposed to be cleared is likely to provide habitat for the quenda (*Isoodon obesulus* subsp. *fusciventer*; priority 4). All of these species are most likely to utilise habitat within vegetation association MpCc, described as *Melaleuca preissiana* and *Corymbia calophylla* woodland, covering 0.65 hectares of the application area.

The application area is within 10 kilometres of a confirmed breeding site for Carnaby's cockatoo. Suitable foraging habitat for conservation significant black cockatoos is limited to the availability of marri trees within vegetation association MpCc. Given the availability of suitable vegetation for foraging habitat in the surrounding region, the loss of 0.65 hectares of vegetation association MpCc is not likely to impact black cockatoos on a local or regional scale.

If present, the proposed clearing will impact on the local quenda population through direct loss of habitat. However, given that suitable habitat for this species that is in better condition than the vegetation within the application area occurs in the adjacent property (360 Environmental, 2015a), the proposed clearing is not likely to have a significant impact on this species.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
360 Environmental (2015a)
ENV Australia (2006)
Keighery (1994)
Parks and Wildlife (2007-)

GIS Database:
- Bush Forever
- Carnaby's cockatoo breeding areas confirmed

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

Comments **Proposed clearing is not likely to be at variance to this Principle**
A total of 20 rare flora species have been recorded within 10 kilometres of the application area.

Approximately 1.63 hectares of native vegetation within the application area is in a degraded to completely degraded (Keighery, 1994) condition, with 1.61 hectares in good to very good (Keighery, 1994) condition. A level 2 flora and vegetation survey conducted by 360 Environmental (2015a) in October 2015 found no rare flora within the application area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
360 Environmental (2015a)
Keighery (1994)

GIS Databases:
- Imagery

(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.

Comments **Proposed clearing is not likely to be at variance to this Principle**
A total of eight threatened ecological communities (TECs) have been recorded within 10 kilometres of the application area. The nearest TEC is a 'Shrublands and woodlands on Muchea limestone' community.

No TECs were recorded during a level 2 flora and vegetation survey (360 Environmental, 2015a) and the vegetation proposed to be cleared does not represent a TEC.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
360 Environmental (2015a)

GIS Databases:
- SAC bio datasets (Accessed February 2016)

(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.

Comments

Proposed clearing not likely to be at variance to this Principle

The application is located within the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 39 per cent of the pre-European vegetation remains (see table below) (Government of Western Australia, 2014).

The vegetation within the application area has been mapped as Beard vegetation association 1001 and Heddle vegetation complex Southern River Complex, of which 23 and 18 per cent remains within the Swan Coastal Plain bioregion, respectively (Government of Western Australia, 2014; Parks and Wildlife, 2015a). The City of Gosnells retains approximately 28 per cent of its pre-European vegetation extent. Based on the percentage of pre-European vegetation remaining, the application area is located within an extensively cleared area.

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). Within constrained areas (areas of urban development in cities and major towns) on the Swan Coastal Plain, the threshold for representation of the pre-clearing extent of a particular native vegetation complex is 10 per cent (EPA, 2006). The area under application is classified as a constrained area.

| | Pre-European (ha) | Current Extent (ha) | Remaining (%) | Extent in Parks and Wildlife Managed Lands (%) |
|--|----------------------|------------------------|------------------|---|
| IBRA Bioregion¹ | | | | |
| Swan Coastal Plain | 1,501,222 | 580,697 | 39 | 37 |
| Shire¹ | | | | |
| City of Gosnells | 12,716 | 3,599 | 28 | 17 |
| Beard Vegetation Association² In Bioregion¹ | | | | |
| 1001 | 57,410 | 13,240 | 23 | 13 |
| Heddle Vegetation Complex³ | | | | |
| Southern River Complex | 57,970 | 10,698 | 18 | 2 |

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

References:

Commonwealth of Australia (2001)
 EPA (2006)
 Government of Western Australia (2014)
 Parks and Wildlife (2015a)
 Parks and Wildlife (2015b)

GIS Databases:

- Bush Forever
 - Remnant vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments

Proposed clearing is at variance to this Principle

The proposed clearing includes:

- approximately 0.91 hectares of native vegetation within a resource enhancement category dampland wetland; and
- approximately 1.65 hectares of native vegetation within a multiple use category dampland wetland (Parks and Wildlife, 2015a).

The dampland wetland extends outside the application area and contains conservation category values on the eastern side of the boundary of Lots 1793, 1794 and 1795 on Plan 3315.

All six vegetation communities recorded by 360 Environmental (2015a) within the application area are growing in association with the mapped dampland wetland. In particular, the vegetation association MpCc recorded by 360 Environmental (2015a) corresponds with Heddle vegetation complex Southern River Complex (Heddle et al., 1980), comprising a woodland of *Melaleuca preissiana* and *Corymbia calophylla* over *Xanthorrhoea preissii*, *Dasypogon bromeliifolius*, *Adenanthos cygnorum*, *Phlebocarya ciliata*, **Briza maxima* and **Ehrharta calycina*. Vegetation association MpCc occurs along the Forrestdale Main Drain within a resource enhancement category dampland wetland. The Forrestdale Main Drain is constructed along the alignment of Forrestdale Creek, a tributary of the Southern River. Approximately 18 per cent of this mapped vegetation association remains within the Swan Coastal Plain (Parks and Wildlife, 2015a) and the proposed clearing will further decrease the remaining extent of riparian vegetation within this vegetation association.

Based on the above, the proposed clearing is at variance to this Principle.

Methodology References:
360 Environmental (2015a)
Heddle et al. (1980)
Parks and Wildlife (2015a)

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

Comments **Proposed clearing is at variance to this Principle**

Two soil types have been mapped within the application area by DAFWA (2016):

- Pinjarra P1b phase soils (moderately deep pale sand to loamy sand over clay that is imperfectly drained); and
- Bassendean B1 phase soils (deep grey sands sometimes with a pale yellow B horizon).

The sandy soils within the application area are highly prone to wind erosion following the removal of vegetative cover (DAFWA, 2016). The exposure of soils following the removal of native vegetation is likely to cause the dispersion of topsoil both within and outside the application area. 360 Environmental (2015b) advises that wind erosion will be minimised by wetting soils prior to clearing during 'dry months'. However, wind erosion is also likely to occur following clearing.

One drainage line, the Forrestdale Main Drain, intersects the application area. The drainage line is constructed along Forrestdale Creek, a tributary of the Southern River. Clearing along this drainage line is likely to cause water erosion following heavy rainfall and may lead to an increase in sedimentation within the drain and the transport of sediments downstream into the Forrestdale Creek and Southern River.

Mapping conducted by DAFWA (2016) indicates that the application area has a moderate risk of salinity following clearing activities. In particular, clearing within the *Melaleuca preissiana* and marri woodland along the drainage line has the potential to raise the water table and increase salinity within the immediate area. However, the clearing of 3.24 hectares within a 12.57 hectare footprint, of which 1.63 hectares of native vegetation is in a degraded to completely degraded condition, is not likely to significantly increase salinity on a local or regional scale.

Pinjarra P1b phase soils within the application area have a moderate to high risk of waterlogging following the removal of native vegetation (DAFWA, 2016). However, waterlogging events are likely to be highly localised and restricted to periods of heavy rainfall.

Based on the potential for appreciable land degradation through wind and water erosion, the proposed clearing is at variance to this Principle.

Methodology References:
360 Environmental (2015b)
DAFWA (2016)

GIS Databases:
- Hydrography, linear

(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.

Comments **Proposed clearing is at variance to this Principle**

Approximately 2.12 hectares of native vegetation within the application area occurs within Bush Forever site 464: Matison Street bushland, Southern River, of which approximately 1.61 hectares is in good to very good condition. This Bush Forever site is part of a regionally significant fragmented bushland/wetland linkage (Department of Environmental Protection, 2000).

The wetland within Bush Forever site 464 and forming part of the application area, is identified as resource enhancement category and multiple use category dampland (Parks and Wildlife, 2015b). Outside the application area, Bush Forever site 464 contains conservation category wetland. Parks and Wildlife (2015b) advises that the Resource enhancement category dampland on the southern side of the Forrestdale Main Drain retains sufficient vegetation structure for rehabilitation to conservation category wetland.

The dampland wetlands within and outside the application area are part of the same extensive wetland system, and Parks and Wildlife (2015b) advises that the proposed clearing may impact on adjacent conservation category wetland within Bush Forever site 464 through edge effects such as weed invasion and trampling.

The proposed clearing will lead to the removal of 1.61 hectares of good to very good condition vegetation within Bush Forever site 464. Clearing activities may also facilitate the spread of weeds and dieback into adjacent native vegetation within the Bush Forever site, which may be minimised by the implementation of weed and dieback management measures.

Based on the above, the proposed clearing is at variance to this Principle.

Methodology References:
Department of Environmental Protection (2000)
Parks and Wildlife (2015b)

GIS Databases:
- Bush Forever

(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.

Comments Proposed clearing may be at variance to this Principle

The application area contains the Forrestdale Main Drain and a dampland wetland (seasonally waterlogged basin) separated into two management categories - resource enhancement and multiple use. Forrestdale Main Drain is constructed along the alignment of Forrestdale Creek, a tributary of the Southern River.

The dampland wetlands within and adjacent to the application area are located within the Bennett Brook consanguineous suite, of which 9.5 per cent of damplands are identified as conservation category (Parks and Wildlife, 2015b). The resource enhancement dampland south of Forrestdale Main Drain has largely retained its native vegetation, with signs of regeneration that has not occurred elsewhere within the application area. Parks and Wildlife (2015b) advises that this wetland is likely to contain representative characteristics of damplands within the Bennett Brook suite, and could be rehabilitated to conservation category wetland.

Approximately 0.91 hectares of native vegetation proposed to be cleared is located within a resource enhancement category dampland wetland, and approximately 1.65 hectares occurs within a multiple use category wetland dampland (Parks and Wildlife, 2015a). The proposed clearing intends to remove all native vegetation within Lots 1793 – 1795; this would result in greatest hydrological impact within areas of deep-rooted vegetation where groundwater recharge will increase, such as the 0.7 hectares of *Melaleuca preissiana* and marri woodland on the southern side of Forrestdale Main Drain within Lot 1793 (360 Environmental, 2015a). Clearing along the drainage line may increase sedimentation within the Forrestdale Creek and Southern River.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology References:
360 Environmental (2015a)
Parks and Wildlife (2015b)

GIS Databases:
- Geomorphic wetlands (classification) Swan Coastal Plain
- Hydrography, linear

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

Comments Proposed clearing is not likely to be at variance to this Principle

Two soil types have been mapped within the application area by DAFWA (2016). Pinjarra P1b phase soils are described as moderately deep pale sand to loamy sand over clay that is imperfectly drained and Bassendean B1 phase soils are described as deep grey sands sometimes with a pale yellow B horizon (DAFWA, 2016).

Pinjarra P1b phase soils occur within the native vegetation of very good condition and a portion of good condition native vegetation, located on the southern side of the drainage line within Lot 1793 (DAFWA, 2016). The proposed clearing may increase the potential for minor localised flooding following heavy rainfall. However, the clearing of 3.24 hectares is not likely to have a significant impact on the incidence or intensity of flooding on a local or regional scale.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
DAFWA (2016)

Planning instruments and other relevant matters.

Comments Parks and Wildlife (2015b) advises that the result of infill and stormwater management associated with residential development will alter local wetland hydrology, including groundwater and surface water flows, and may impact on wetland vegetation condition and the value of habitat for wetland fauna within the adjacent Conservation category wetland. The proposed residential development also has the potential to introduce pollutants into the wetland, thus altering water quality and increasing risks to flora and fauna health (Parks and Wildlife, 2015b). Parks and Wildlife (2015b) advises that a majority of impacts to conservation and resource enhancement category wetland areas can be mitigated by appropriate wetland buffers from the proposed residential development.

The City of Gosnells (2016) advises that the application area is zoned as 'General Rural' under the Town Planning Scheme No. 6 and 'Urban Deferred' under the Metropolitan Region Scheme. However, under the southern River/ Forrestdale/ Brookdale/ Wugong District Structure Plan (DSP), the application area is marked for residential and open space uses (City of Gosnells, 2016). Under the DSP, the application area is within the 'Precinct 3' area, for which all developments require a Local Structure Plan, amendment to the Metropolitan Region Scheme and Town Planning Scheme, and a Structure Plan. The City of Gosnells (2016) advises that to date, no proposals have been received to rezone the land, prepare a Structure Plan, subdivide or develop. Therefore, the City of Gosnells (2016) advises that they are unlikely to support any applications for subdivision or development in this location that provide for intensive urban uses.

The Department of Planning (DoP) is the lead agency for the management of Bush Forever sites. DoP advises that the land subject to application has the Bush Forever site implementation category 'Urban, Industrial or Resource Development', which requires a Negotiated Planning Solution (DoP, 2016). To date, there has been no Negotiated Planning Solution. DoP (2016) advises that the Local Structure Plan for Southern River Precinct 3C proposes that the Bush Forever portion of Lots 1793 - 1795 remains as a conservation area. DoP (2016) does support the proposed clearing within Bush Forever site 464, and recommended the fencing of areas within Lots 1793 - 1795 that are within the Bush Forever site prior to the proposed activities being undertaken. No objection was raised in relation to the proposed clearing outside of the Bush Forever site boundary.

The application area is located within the Southern River registered Aboriginal Site of Significance. It is the applicant's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The application was advertised by the Department of Environment Regulation on 28 December 2015 for a 21 day submission period. No submissions were received.

On 7 April 2016, DER wrote to the applicant, outlining the environmental and planning issues identified in the preliminary assessment, and inviting a response within 30 days. No formal response has been received from the applicant responding to the environmental and planning issues identified in the preliminary assessment.

Methodology References:
City of Gosnells (2016)
DoP (2016)
Parks and Wildlife (2015b)

4. References

- 360 Environmental (2015a) Matison Street Level 2 flora and vegetation survey prepared for ABN Group. 360 Environmental Pty Ltd. DER REF: A1012474.
- 360 Environmental (2015b) Lots 1793 - 1795 Matison Street, Southern River Clearing permit application prepared for ABN Group. 360 Environmental Pty Ltd. DER REF: A1012474.
- City of Gosnells (2016) Advice received from the City of Gosnells on 2 February 2016. DER REF: A1043826.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DAFWA (2016) NRMInfo (Natural Resource Management) Portal. Department of Agriculture and Food Western Australia. URL: <http://maps.agric.wa.gov.au/nrminfo/>. Accessed February 2016.
- Department of Environmental Protection (2000) Bush Forever: Keeping the bush in the city. Volume 2, Directory of Bush Forever sites. Government of Western Australia, Perth, WA.
- DoP (2016) Bush Forever advice received from the Department of Planning on 12 February 2016. DER REF: A1049715.
- ENV Australia (2006) Precinct 3 - Environmental Review Southern River. Report prepared by ENV Australia on behalf of the City of Gosnells.
- EPA (2006) 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. Guidance Statement No 10. Environmental Protection Authority, Western Australia.
- EPA (2008) Environmental Guidance for Planning and Development. Guidance Statement No. 33. Environmental Protection Authority, Western Australia.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. 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.

Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>. (Accessed February 2016)

Parks and Wildlife (2015a) 2015 South West Forest and Swan Coastal Plain Vegetation Complex Statistics: a report prepared for the Department of Environment Regulation. Current as of March 2015. Department of Parks and Wildlife, Perth, Western Australia.

Parks and Wildlife (2015b) Wetlands advice received from the Department of Parks and Wildlife on 11 February 2016. DER REF: A1049718.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> (Accessed February 2016).