GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: 9037/1
File Number: DWERVT6452
Duration of Permit: From 11 November 2020 to 11 November 2022

PERMIT HOLDER
City of Swan

LAND ON WHICH CLEARING IS TO BE DONE
West Swan Road reserve (PIN 1161018), Belhus

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than five native trees within the area cross-hatched yellow on attached Plan 9037/1

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. Dieback and weed control
When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:
(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
(b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

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

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

6. 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);
(d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit; and
(e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 2 of this Permit.

7. Reporting

The Permit Holder must provide to the *CEO* the records required under condition 6 of this Permit, when requested by the *CEO*.

DEFINITIONS

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

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

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

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

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

weed/s means any plant -

(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

19 October 2020

Plan 9037/1

Legend

- CPS areas approved to clear
- base layers
- Local Government Authorities
- Cadastre - LGATE 218
- Roads - Landgate 012
- Image

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MGA 94
Geocentric Datum of Australia 1994

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

GOVERNMENT OF
WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	CPS 9037/1
Permit type:	Area permit
Applicant name:	City of Swan (the City)
Application received:	8 September 2020
Application area:	Five native trees
Purpose of clearing:	Constructing a dual use path
Method of clearing:	Mechanical removal
Property:	West Swan Road reserve (PIN 1161018)
Location (LGA area/s):	City of Swan
Localities (suburb/s):	Belhus

1.2. Description of clearing activities

The application is to clear five marri trees (*Corymbia* calophylla) along the northern side of the existing West Swan Road to allow construction of a dual use path from the newly constructed Millhouse Road roundabout to the existing cycle path near Great Northern Highway (see Figure 1, Section 1.5).

1.3. Decision on application and key considerations

Decision:	Granted
Decision date:	19 October 2020
Decision area:	5 native trees, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 8 September 2020. DWER advertised the application for public comments and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to site characteristics (see Appendix A), the Clearing Principles in Schedule 5 of the EP Act (see Appendix B), photographs of the trees proposed to be cleared supplied by the City (see Appendix D), relevant planning instruments and any other pertinent matters they deemed relevant to the assessment (see Sections 3 and 4), as well as relevant datasets available at the time of the assessment (see Appendix G). The Delegated Officer also took into consideration that the purpose of the clearing is to allow construction of a dual use path from the newly constructed Millhouse Road roundabout to the existing cycle path near Great Northern Highway.

The Delegated Officer considered the impacts of the proposed clearing are unlikely to have any long-term adverse impacts on the environmental values in the local area and that weed and dieback management practices will mitigate any potential impacts to adjacent vegetation.

After consideration of the available information, the Delegated Officer has determined that with appropriate management conditions the proposed clearing is not likely to lead to an unacceptable risk to the environment. The Delegated Officer has decided to grant a clearing permit subject to weed and dieback management conditions.

1.5. Site map

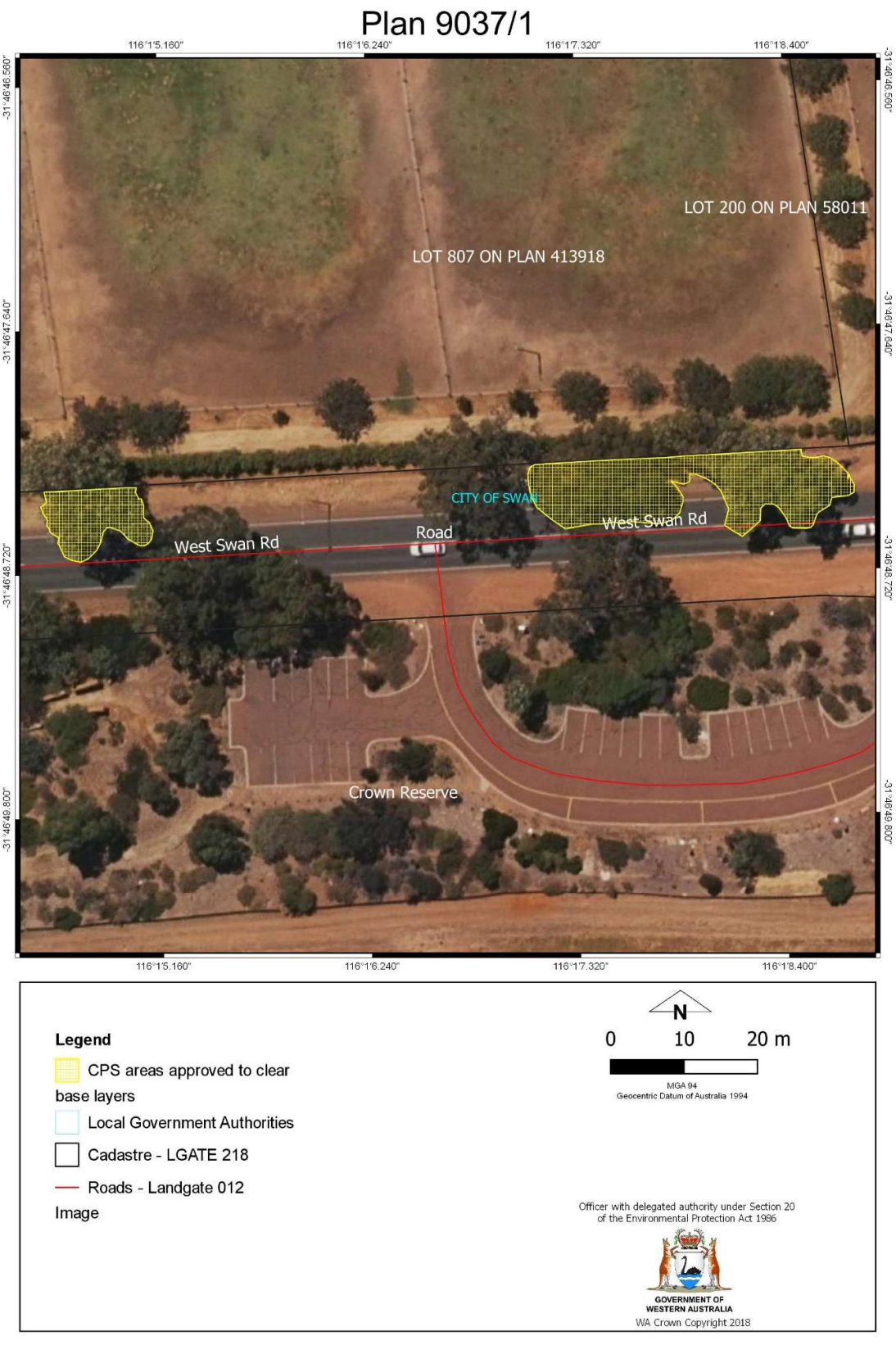

Figure 1. Map of the application area. The area/s cross-hatched yellow indicate/s the area/s authorised to be cleared under the granted clearing permit.

2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle;
2. the principle of intergenerational equity; and
3. the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

In relation to whether alternatives have been considered that would avoid or minimise the need for clearing, the City has advised that where possible, the dual path had been design to meander around existing trees, however, five trees were required to be cleared in order to allow the path sufficient room to fit between the road and the neighbouring private property boundary (City of Swan, 2020). This adequately demonstrated that all reasonable efforts had been taken to avoid and minimise potential impacts of the clearing on environmental values.

3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix A) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix B.

This assessment identified that the clearing may pose a risk to the environmental value of fauna values and significant remnant vegetation and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

3.2.1. Environmental value: biological values (fauna) – Clearing Principle (b)

Assessment:

According to available databases, 28 conservation significant fauna species have been recorded within the local area (Department of Biodiversity, Conservation and Attractions (DBCA), 2007). Noting the habitat requirements of the recorded species, the mapped vegetation type and the condition of the vegetation within the application area, the application area is likely to comprise suitable habitat for three black cockatoo species: forest red-tailed black cockatoo (*Calyptorhynchus banksia* subsp. *naso*), Carnaby's cockatoo (*Calyptorhynchus latirostris*) and Baudin's cockatoo (*Calyptorhynchus baudinii*) (collectively referred to as black cockatoo herein this report) and peregrine falcon (*Falco peregrinus*).

Black cockatoos

The application area is within the known distribution (Commonwealth of Australia, 2012) of three black cockatoo species. According to available databases, 26 records of forest red-tailed black cockatoo, 1,252 records of Carnaby's cockatoo and four records of Baudin's cockatoo have been recorded in the local area (DBCA, 2007).

The assessment has identified that the application area is not likely to provide suitable breeding habitat. Suitable breeding habitat for black cockatoos includes trees which either have a suitable nest hollow or are of a suitable dimeter at breast height (DBH) to develop a nest hollow. For most tree species a suitable DBH is 500 millimetres (Commonwealth of Australia, 2012). A review of the photographs of the application area supplied by the City (2020) identified that the trees proposed to be cleared are not of a size to contain hollows suitable for black cockatoo breeding.

Noting typical food resources for black cockatoos, the assessment has concluded that the application area provides foraging habitat for these species. Forest red-tailed black cockatoo forages within jarrah and marri woodlands and forest, and edges of karri forests including wandoo and blackbutt, within the range of the subspecies. The species largely feeds and seeds on marri and jarrah, as well as other *Eucalyptus* species and *Allocasuarina* cones (Commonwealth of Australia, 2012). Baudin's cockatoo prefer foraging within Eucalypt woodlands and forest, and proteaceous woodland and heath. During the breeding season (October to late January/early February) this species has a preference for marri seeds. Outside the breeding season the species may feed in fruit orchards and tips of *Pinus* spp. (Commonwealth of Australia, 2012). Carnaby's cockatoo feeds on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea* and *Grevillea*), as well as Allocasuarina and Eucalyptus species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008).

The assessment has determined that the application area is not likely to provide significant foraging habitat that supports black cockatoo breeding. Foraging habitat for black cockatoos within 7 kilometres (km) of a breeding site is important to adequately support breeding pairs (EPA, 2019). The application area is not located within the mapped confirmed breeding area for Carnaby's cockatoo. Whilst according to available databases there are three confirmed Carnaby's cockatoo breeding points within the local area located approximately seven, nine and ten kilometres southwest of the application area, taking into consideration the minimal extent of the proposed clearing, the foraging habitat is not considered significant.

Significant habitat refers to the resources (breeding, resting and feeding), connectivity or habitat area for a species or community that is critical for its survival. Noting the minimal extent of the application area, the proposed clearing is unlikely to reduce the amount of food available to breeding birds or affect chick survival rates.

The application area is not likely to provide significant foraging habitat that supports black cockatoo night roosting. Individual night roosting sites need suitable foraging habitat and water within 6 km (EPA, 2019). Overlapping foraging ranges within 12 km also support roosting sites and maintain habitat connectivity and movement across the landscape (EPA, 2019). There are 21 confirmed black cockatoo roosting sites within the local area, with the closest record approximately 1.2 km from the application area. Noting the minimal extent of the proposed clearing, the foraging habitat is not considered significant to support night roosts.

Taking into account the small size of the application area and that approximately 90 per cent of vegetation within West Swan Road will remain, the proposed clearing is not likely to restrict black cockatoo ability to migrate across the landscape.

Peregrine falcon

According to available databases, four records of peregrine falcon have been recorded in the local area, with the closest record approximately 7.6 km west of the application area.

The species is found in most habitats, from rainforests to the arid zone and at most altitudes, from the coast to alpine areas. It requires abundant prey and secure nest sites and prefers coastal and inland cliffs or open woodlands near water and may even be found nesting on high city buildings (Australian Museum, 2020). This species is widespread, highly mobile and is found in various habitats. The application area may comprise suitable habitat for this species, however, noting the species habitat preferences and the small extent of the proposed clearing, the application area is unlikely to comprise significant habitat for this species.

Ecological linkage

According to available databases, the application area is mapped at the southern boundary of a north south regionally significant ecological linkage (Conceptual Linkage) (ID113). This linkage provides value as a north-south ecological linkage within a fragmented landscape, particularly between Pearce Aerodrome and Adjacent Bushland (Bush Forever Site No. 294) and Whiteman Park (Bush Forever Site No. 304).

A more detailed assessment has determined that the proposed clearing will unlikely fragment this ecological linkage, create a barrier or act as a stepping stone for fauna movement. Within the mapped ecological linkage, between Bush Forever Site No. 300 and the application area, there is an approximately 185 metre wide area that has been significantly cleared for agricultural purposes (Figure 2).

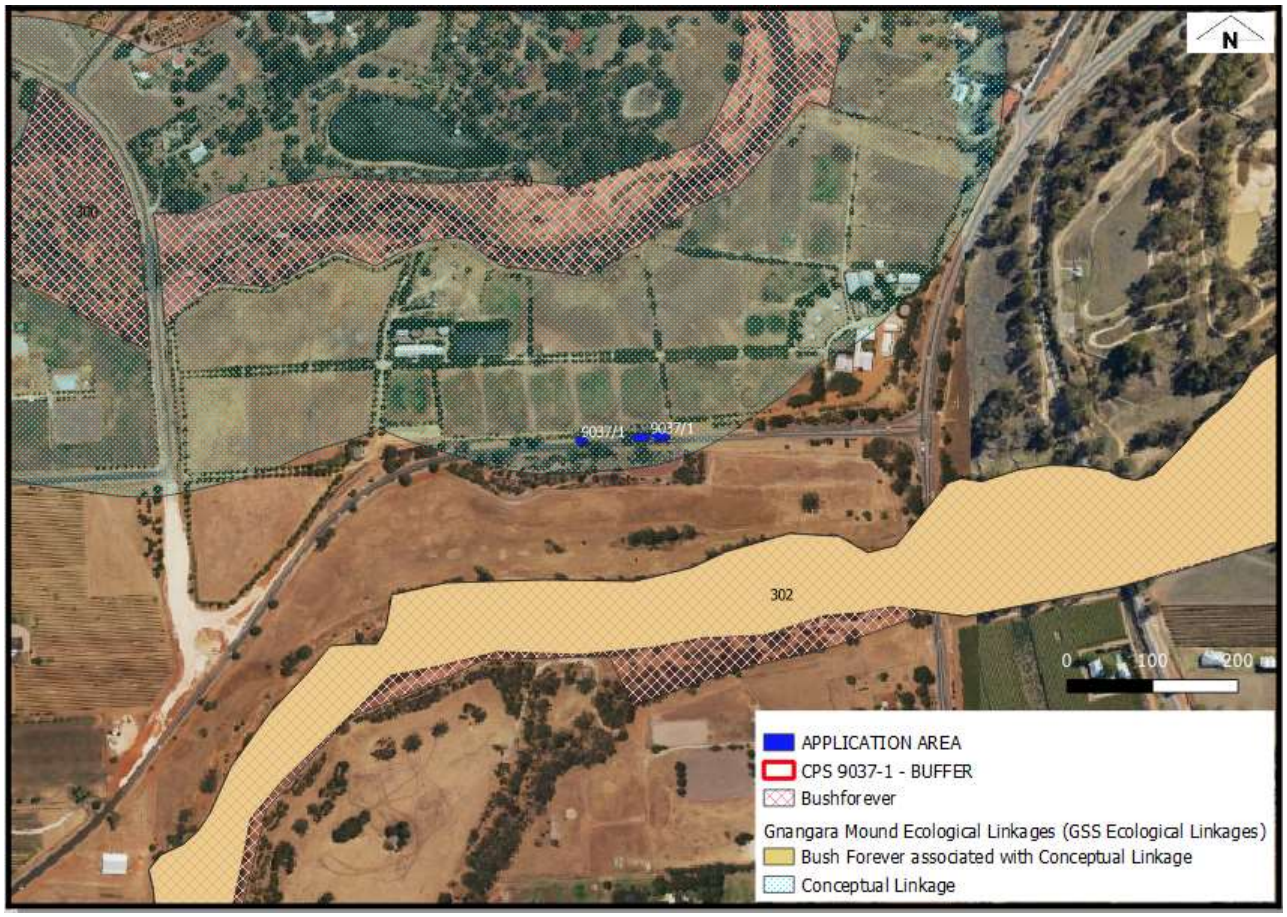

Figure 1 Position of the application area in relation to Gnangara Mound Ecological Linkage

Aerial imagery and spatial datasets indicate that this Bush Forever site is more likely to be used by fauna for movement across the landscape. In addition, the proposed clearing is not likely to have significant impact on vegetation acting as a stepping stone as the proposed clearing will impact only five trees within the West Swan Road reserve and approximately 90 per cent of vegetation within the road reserve will remain post-clearing.

Outcome:

Based on the above assessment, the Delegated Officer has determined that no fauna management conditions are required.

3.2.2. Environmental value: significant remnant vegetation – Clearing Principle (e)

Assessment:

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The assessment has determined that the application area is not located within an extensively cleared landscape. The extent of native vegetation within the local area is consistent with these thresholds as it retains approximately 34.89 per cent vegetation cover (approximately 11,047.2 ha). The application represents approximately 0.000005 per cent of the remaining vegetation within the local area and the proposed clearing will reduce the extent of native vegetation within the local area to 11,047.15 ha.

The application area is located within the 'Swan Coastal Plain' (SCP) Interim Biogeographic Regionalisation for Australia (IBRA) which retains approximately 32.5 per cent of its pre-European vegetation extent (Government of Western Australia, 2019).

The SCP vegetation complex Swan, which has been mapped within the application area, retains approximately 13.57 per cent of its original vegetation extent. While this vegetation complex has been extensively cleared, the application

area is dominated by *Corymbia calophylla* over weedy understorey, and therefore, the vegetation in the application area is not considered representative of this vegetation complex.

Taking into account the minimal extent of the proposed clearing in a degraded (Keighery, 1994) to completely degraded (Keighery, 1994) condition and that the application area is unlikely to provide significant habitat for fauna or be a part of a significant ecological linkage, the vegetation within the application area is not considered as a significant remnant of native vegetation in an extensively cleared landscape.

There is a risk of weeds and dieback spreading into remnants of native vegetation adjacent to the proposed clearing and the applicant will be required to adhere to weed and dieback management measures (as conditioned on the clearing permit) to minimise this risk.

Outcome:

Based on the above assessment and subject to management conditions, the Delegated Officer has determined that the proposed clearing will not significantly impact on this environmental value.

Conditions:

To address the above impacts, it is considered that the impacts of the proposed clearing on adjacent remnant vegetation can be managed by requiring the applicant to take steps to minimise the risk of the introduction and spread of weeds and dieback.

3.3. Relevant planning instruments and other matters

On 29 September 2020, in accordance with section 51E(4)(b) of the EP Act, comments on the application was sought from the North Swan Conservation District Committee. No comments were received.

The application area is mapped within 'Ellen Brook: Upper Swan' Registered Site. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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Appendix A – Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing area is part of approximately 0.583 ha of native vegetation scattered along approximately 770 metre West Swan Road reserve. Spatial data indicate the local area (10 km radius of the application area, which is equal to approximately 31,667 ha) retains approximately 34.9 per cent (11,047 ha) of the original native vegetation cover distributed within 1,424 remnant areas. The vast majority (approximately 86 per cent) of the remnant areas are of the size less than 5 ha. Approximately 20.8 per cent of the local area (approximately 6,591 ha) occurs within DBCA managed estate.
Vegetation description	The supporting documents supplied by the City (2020) indicate the vegetation within the proposed clearing area consists of five marri trees over weedy understorey of introduced grasses. This is inconsistent with the mapped Swan Coastal Plain vegetation complex Swan, which is described as fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca rhaphiophylla* (Swamp Paperbark) with localised occurrence of low open forest of *Casuarina obesa* (Swamp Sheoak) and *Melaleuca cuticularis* (Saltwater Paperbark) (Heddle et al., 1980).
Vegetation condition	Photographs supplied by the City (2020) indicate the vegetation within the proposed clearing area is in degraded (Keighery, 1994) to completely degraded (Keighery, 1994) condition. The full Keighery condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.
Soil description	The soil within the application area is mapped as the following subsystems (Department of Primary Industries and Regional Development (DPIRD), 2020): • Ssl - Swan sandy loam (Swan) (one tree), which is described as shallow red-brown sandy loam over red-brown clay loam, grading to red clay (Shepherd et al, 2001); and • Hs - Herne sand (Pinjarra) (four trees), which is described as grey to greyish-brown sand with nil to few gravels over mottled clay (Shepherd et al, 2001).
Land degradation risk	The mapped soil types within the application area have high risk of acidification and moderate risk of sub surface compact.
Waterbodies	The desktop assessment indicates that the closest wetland is a multiple use wetland Ellen Brook Floodplain (UFI 12281) located approximately 200 metres north of the application area and the closest watercourse is a perennial tributary of Swan River (ID 11200) which can be found approximately 210 metres south of the application area.
Conservation areas	The closest conservation area is Swan River (R 48325) (which overlaps with Bush Forever Site No. 302) located approximately 220 metres south of the application area.
Climate and landform	*Rainfall:* 800 millimetres *Evapotranspiration:* 700 millimetres *Groundwater Salinity (Total Dissolved Soilds):* 500-1000 milligrams per litre total dissolved solids

2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above and relevant datasets (see Appendix A), the following conservation significant flora and fauna species and ecological communities may be impacted by the clearing.

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
Flora						
Acacia oncinophylla subsp. *oncinophylla*	Priority (P) 3	2200	Yes	No	N/A	N/A
Adenanthos cygnorum subsp. *chamaephyton*	P3	5353	No	No	N/A	N/A
Amanita fibrillopes	P3	8824	No	No	N/A	N/A
Anigozanthos humilis subsp. *chrysanthus*	P4	6797	No	No	N/A	N/A
Beaufortia purpurea	P3	5097	No	No	N/A	N/A
Caladenia huegelii	Threatened (T)	4213	No	No	N/A	N/A
Calectasia elegans	P2	8732	No	No	N/A	N/A
Cyanicula ixioides subsp. *ixioides*	P4	1494	No	No	N/A	N/A
Cyathochaeta teretifolia	P3	2864	No	No	N/A	N/A
Darwinia pimelioides	P4	4998	No	No	N/A	N/A
Eleocharis keigheryi	T	2707	Yes	No	N/A	N/A
Eryngium pinnatifidum subsp. *palustre* (G.J. Keighery 13459)	P3	4692	No	No	N/A	N/A
Grevillea christineae	T	4222	No	No	N/A	N/A
Grevillea curviloba	T	2834	No	No	N/A	N/A
Grevillea curviloba subsp. *curviloba*	T	3698	No	No	N/A	N/A
Grevillea curviloba subsp. *incurva*	T	4368	No	No	N/A	N/A
Haemodorum loratum	P3	3744	No	No	N/A	N/A
Halgania corymbosa	P3	4437	No	No	N/A	N/A
Hydrocotyle lemnoides	P4	2636	Yes	No	N/A	N/A
Hydrocotyle striata	P1	9875	No	No	N/A	N/A
Hypolaena robusta	P4	5473	No	No	N/A	N/A
Isopogon autumnalis	P3	9737	No	No	N/A	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
Lasiopetalum glutinosum subsp. *glutinosum*	P3	7753	No	No	N/A	N/A
Meionectes tenuifolia	P3	2838	No	No	N/A	N/A
Millotia tenuifolia var. laevis	P2	4930	No	No	N/A	N/A
Persoonia sulcata	P4	2008	No	No	N/A	N/A
Phlebocarya pilosissima subsp. *pilosissima*	P3	6107	No	No	N/A	N/A
Pithocarpa corymbulosa	P3	5511	No	No	N/A	N/A
Poranthera moorokatta	P2	4930	No	No	N/A	N/A
Schoenus capillifolius	P3	1729	No	No	N/A	N/A
Schoenus natans	P4	3305	No	No	N/A	N/A
Schoenus sp. *Bullsbrook* (J.J. Alford 915)	P2	7030	No	No	N/A	N/A
Schoenus sp. *Waroona* (G.J. Keighery 12235)	P3	1729	No	No	N/A	N/A
Stachystemon exilis	P1	7533	No	No	N/A	N/A
Stylidium longitubum	P4	1374	Yes	No	N/A	N/A
Stylidium paludicola	P3	4655	No	No	N/A	N/A
Stylidium trudgenii	P3	5920	No	No	N/A	N/A
Styphelia filifolia	P3	8994	No	No	N/A	N/A
Tetratheca pilifera	P3	7156	No	No	N/A	N/A
Thelymitra dedmaniarum	T	4878	No	No	N/A	N/A
Thysanotus glaucus	P4	9587	No	No	N/A	N/A
Thysanotus sp. Badgingarra (E.A. Griffin 2511)	P2	5310	No	No	N/A	N/A
Trithuria occidentalis	T	1735	No	No	N/A	N/A
Verticordia lindleyi subsp. *lindleyi*	P4	3947	No	No	N/A	N/A
Fauna						
Australasian bittern	Endangered (EN)	7124	N/A	N/A	No	N/A
Australian lesser noddy	EN	7924	N/A	N/A	No	N/A
Baudin's cockatoo	EN	6827	N/A	N/A	Yes	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
Bilby, dalgyte, ninu	Vulnerable (VU)	1490	N/A	N/A	No	N/A
Black-flanked rock-wallaby, black-footed rock-wallaby	EN	8268	N/A	N/A	No	N/A
Black-stripe minnow, black-striped dwarf galaxias	EN	700	N/A	N/A	No	N/A
Black-striped snake, black-striped burrowing snake	P3	4290	N/A	N/A	No	N/A
Blue-billed duck	P4	2188	N/A	N/A	No	N/A
Carnaby's cockatoo	EN	344	N/A	N/A	Yes	N/A
Carter's freshwater mussel	VU	1774	N/A	N/A	No	N/A
Chuditch, western quoll	VU	5180	N/A	N/A	No	N/A
Crested tern	Migratory birds protected under an international agreement (IA)	9306	N/A	N/A	No	N/A
Forest red-tailed black cockatoo	VU	1164	N/A	N/A	Yes	N/A
Glossy ibis	IA	463	N/A	N/A	No	N/A
Graceful sunmoth	P4	6622	N/A	N/A	No	N/A
Jewelled southwest Ctenotus (Swan Coastal Plain subpop.)	P3	4993	N/A	N/A	No	N/A
Peregrine falcon	Other specially protected fauna (OS)	7559	N/A	N/A	Yes	N/A
Pouched lamprey	P3	9740	N/A	N/A	No	N/A
Quenda, southwestern brown bandicoot	P4	708	N/A	N/A	No	N/A
South-western brush-tailed phascogale, wambenger	Conservation dependent fauna (CD)	5889	N/A	N/A	No	N/A
Tammar wallaby	P4	6393	N/A	N/A	No	N/A
Water-rat, rakali	P4	3020	N/A	N/A	No	N/A
Western brush wallaby	P4	4892	N/A	N/A	No	N/A
Western false pipistrelle, western falsistrelle	P4	6129	N/A	N/A	No	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
Western swamp tortoise	Critically endangered (CR)	1129	N/A	N/A	No	N/A
White-tailed black cockatoo	EN	7124	N/A	N/A	Yes	N/A
Wood sandpiper	IA	7124	N/A	N/A	No	N/A
Woylie, brush-tailed bettong	CR	7803	N/A	N/A	No	N/A
Ecological communities						
Banksia attenuata and/or Eucalyptus marginata woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20b as originally described in Gibson et al. (1994))	Endangered	9852	No	No	N/A	N/A
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region	Priority 3	1527	No	No	N/A	N/A
Central Northern Darling Scarp Granite Shrubland Community	Priority 4	5445	No	No	N/A	N/A
Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)	Critically Endangered	3538	No	No	N/A	N/A
Corymbia calophylla - Kingia australis woodlands on heavy soils, Swan Coastal Plain (floristic community type 3a as originally described in Gibson et al. (1994))	Critically Endangered	9673	No	No	N/A	N/A
Corymbia calophylla - Xanthorrhoea preissii woodlands and shrublands, Swan Coastal Plain (floristic	Critically Endangered	3246	No	No	N/A	N/A

Species / Ecological Community	Conservation status	Distance of closest record to application area (metres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
community type 3c as originally described in in Gibson et al. (1994))						
Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain (floristic community type 15 as originally described in Gibson et al. (1994))	Vulnerable	5859	No	No	N/A	N/A
Herb rich shrublands in clay pans (floristic community type 8 as originally described in Gibson et al. (1994))	Vulnerable	2636	No	No	N/A	N/A
Shrublands and woodlands of the eastern side of the Swan Coastal Plain (floristic community type 20c as originally described in in Gibson et al. (1994))	Critically Endangered	9600	No	No	N/A	N/A
Shrublands and woodlands on Muchea Limestone of the Swan Coastal Plain	Endangered	2683	No	No	N/A	N/A

3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Swan Coastal Plain	850,785.09	276,461.42	32.49	153,017.73	17.99
Vegetation complex					
Swan complex	15,194.13	2,062.03	13.57	323.34	0.93
Local area					
10 km radius	31,667.26	11,047.2	34.89	6,591	20.81

Appendix B – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: Considering the application is to clear five marri trees over a weedy understorey, the proposed clearing will have limited impacts on the understorey in the application area, and therefore, no threatened or priority flora is likely to be impacted. The application area does not comprise significant habitat for fauna and vegetation in the application area is not representative of threatened of priority ecological community.	Not likely to be at variance	No
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."* Assessment: The application area comprises suitable habitat for three black cockatoo species and peregrine falcon. However, noting the extent of the proposed clearing, its location in close proximity to patches of remnant vegetation and the sparse weed-dominated understorey, the vegetation proposed to be cleared is not likely to comprise a significant habitat for these or other native fauna.	Not likely to be at variance	Yes Refer to Section 3.2.1 above.
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: Considering the application is to clear up to 5 marri trees, the proposed clearing will have limited impacts on the understorey within the application area, and therefore no threatened flora is likely to be impacted.	Not likely to be at variance	No
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."* Assessment: The proposed clearing area does not contain species composition indicative of a threatened ecological community listed by the Western Australian Minister for Environment.	Not likely to be at variance	No
Environmental values: significant remnant vegetation and conservation areas		
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."* Assessment: While the extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia, the extent of the mapped vegetation complex within the application area is below these thresholds. The vegetation in the application area is not representative of the mapped extensively cleared vegetation complex. The vegetation proposed to be cleared is not significant as a remnant of native vegetation as the vegetation in the application area is not considered to be part of a significant linkage, is not likely to provide habitat for conservation significant flora and fauna and is not representative of threatened or priority ecological community.	Not likely to be at variance	Yes Refer to Section 3.2.2 above.

Assessment against the Clearing Principles	Variance level	Is further consideration required?
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."* Assessment: Given the separation distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any nearby conservation areas.	Not likely to be at variance	No
Environmental values: land and water resources		
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."* Assessment: Given no water courses or wetlands are recorded within the proposed clearing area, the clearing is unlikely to impact on an environment associated with a watercourse or wetland.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: Noting the extent of the proposed clearing and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
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."* Assessment: Given no water courses, wetlands or Public Drinking Water Sources Areas are recorded within the proposed clearing area, the clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: Noting the minimal extent of the proposed clearing scattered along the application area, the proposed clearing is not likely to cause, or exacerbate, the incidence or intensity of flooding.	Not likely to be at variance	No

Appendix C – Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very Good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D – Photographs of the vegetation

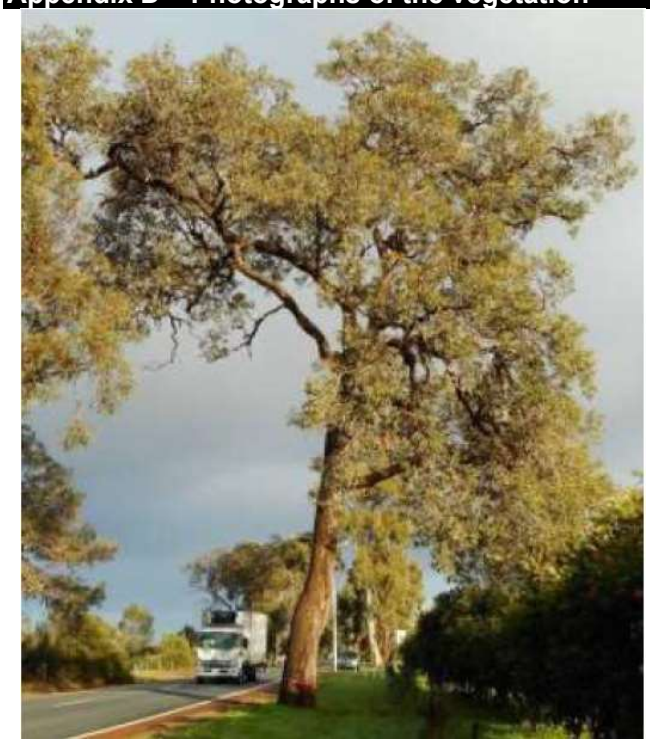

Figure 3a

Figure 3b

Figure 3c

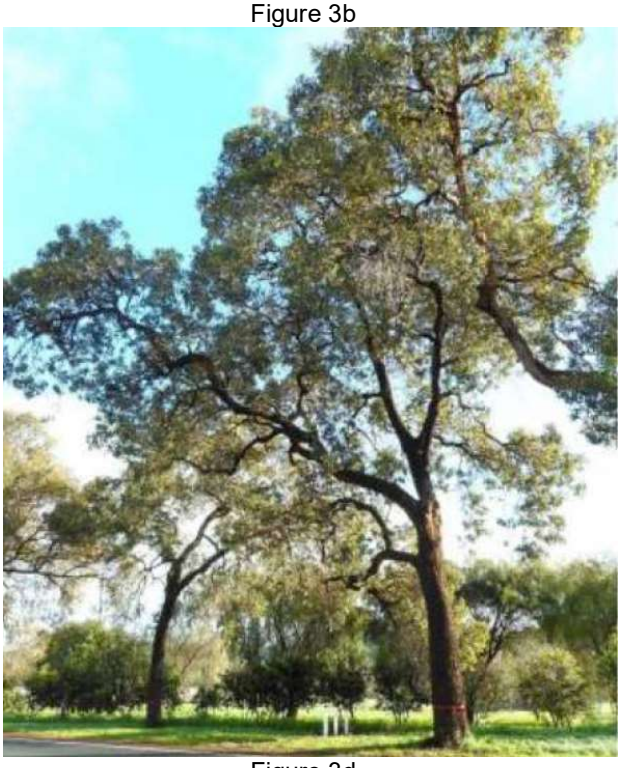

Figure 3d

Figure 3e
Figures 3a-3e Trees proposed to be cleared

Appendix E – References and databases

1. GIS datasets

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Consanguineous Wetlands Suites (DBCA-020)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Remnant Vegetation, All Areas
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- South Coast Significant Wetlands (DBCA-018)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- RIWI Act, Groundwater Areas (DWER-034)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities

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