

Your ref :CPS9427/2
Our ref : A10352649

Enquiries :

29 November 2023

Department of Water and Environmental Regulation
Mr Manager Native Vegetation Protection
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JOONDALUP WA 6919

Dear

# Application to Amend CPS 9427/2 - Inner Armadale Level Crossing Removal Project

The Public Transport Authority of Western Australia (PTA) requests an amendment to CPS 9427/2 (Inner Armadale Level Crossing Removal Project). The amendment adds additional areas which are required for the construction of the Level Crossing Removal Project. The additional areas contain 54 scattered native plants in a Completely Degraded condition where no intact native vegetation communities exist. The PTA will mitigate clearing impacts in accordance with the existing conditions of CPS 9427/2. Grass trees will be translocated where clearing is unavoidable and offset planting will be accommodated within the project footprint.

Please find enclosed the following information to support to application to amend CPS 9427/2:

- Form C4 application to amend a clearing permit.
- Project overview, existing environment summary and assessment of native vegetation. clearing against the Ten Clearing Principles.
- Amendment area figure and corresponding shapefile.
- Certificates of title.
- Landowner consent (Town of Victoria Park, City of Canning and the Department of Planning, Lands and Heritage).

Relevant biological survey reports relevant to the amendment application were previously uploaded to the IBSA database to support the initial clearing permit application. The survey data has been supplemented with an arborist survey. Copies of these reports can be provided if required by the assessing officer.

Please update the nominated contact for CPS 9427/2 to the undersigned.

The PTA trusts that the information prov	vided will adequately s	support the amendment request.	lf
you have any queries relating to the an	nendment application,	please contact	
(email:	; phone:	).	

Yours sincerely

EXECUTIVE DIRECTOR
INFRASTRUCTURE PLANNING & LAND SERVICES

ABN - 61 850 109 576

## 1. PROJECT OVERVIEW

Clearing permit CPS 9427/2 was granted 5 September 2023, authorising the clearing of 1.06 ha of native vegetation for the Inner Armadale Level Crossing Removal Project (IALXR).

On-going project planning by the Construction Alliance has identified native vegetation outside of the approved permit area that may be impacted by construction. The additional native vegetation comprises 54 scattered plants which may constitute native vegetation as defined in the *Environmental Protection Act 1986* (EP Act). Figure 1 outlines the additional areas that form the subject of this amendment application. A shapefile is also enclosed with this application.

Landowner consent to undertake the proposed clearing within the amendment areas is provided at **Attachment 1**.

## 2. CLEARING DETAILS AND TENURE

A breakdown of proposed clearing of native vegetation for each location is provided in Table 1. Land tenure and ownership of the amendment area is summarised in

Table 2.

Table 1. Proposed Clearing

AMENDMENT AREA LOCATION	POTENTIAL EXTENT OF NATIVE VEGETATION CLEARING
Bank Street road reserve area between Oats Street and Welshpool Road	30 grass trees (Xanthorrhoea preissii); no other native vegetation is present.
Hamilton Street – southwest of the rail line	3 Marri ( <i>Corymbia calophylla</i> ), 1 Tuart ( <i>Eucalyptus gomphocephala</i> ), 1 Jarrah ( <i>Eucalyptus marginata</i> ), 3 Flooded gum ( <i>Eucalyptus rudis</i> ), 12 Swamp Paperbark ( <i>Melaleuca rhaphiophylla</i> ); no other native vegetation is present.
Hamilton Street – north of the rail line	1 Marri ( <i>Corymbia calophylla</i> ), 1 Flooded gum ( <i>Eucalyptus rudis</i> ); no other native vegetation is present.
Railway Parade, near intersection of Albion Street	2 Marri (Corymbia calophylla); no other native vegetation is present.
Total	54 trees/shrubs - 30 Grass trees, 6 Marri, 1 Jarrah, 1 Tuart, 4 Flooded gum, 12 Swamp Paperbark

Table 2. Land Tenure and Ownership

Amendment Area Identifier	Lot	Deposited Plan	Land ID	Tenure	Vesting Authority / Interest Holders	Land Use
Bank Street road reserve	-	-	3846520	Crown land	Town of Victoria Park	Road reserve
	-	-	3846519	Crown land	Town of Victoria Park	Road reserve
Hamilton Street – southwest of rail	800	60803	3813452	Freehold	Western Australian Planning Commission	Vacant
	-	-	4207725	Crown land	City of Canning	Road reserve

Amendment Area Identifier	Lot	Deposited Plan	Land ID	Tenure	Vesting Authority / Interest Holders	Land Use
	-	-	3159342	Crown land	City of Canning	Road reserve
	52	53934	3452873	Freehold	Town of Canning	Vacant
	173	1883	1365782	Freehold	The Metropolitan Region Planning Authority	Vacant
Hamilton Street – north of rail	-	-	4286617	Crown land	City of Canning	Road reserve
	-	-	3847488	Crown land	City of Canning	Road reserve
Railway Parade (near intersection of Albion Street)	4973	36744	3293020	Crown land	State of Western Australia, Management Order to the Public Transport Authority of Western Australia	Rail reserve

## 3. EXISTING ENVIRONMENT

## 3.1 Location

The amendment areas are within the local government areas of the Town of Victoria Park and City of Canning. The affected areas are mostly within public road reserves under the management of the two local authorities, and the remaining areas are owned freehold land with management authority to the City of Canning, the Metropolitan Region Planning Authority and the Western Australian Planning Commission, and one cadastral parcel that comprises rail reserve (Table 2).

# 3.2 Aspects and impacts

Table 3 provides an evaluation of the potential impacts that clearing of native vegetation within the proposed amendment areas may have on environmental aspects.

Table 3. Aspects and Impacts

ASPECT	EVALUATION OF IMPACTS
Flora and Vegetation	No intact native vegetation communities occur within the amendment area. The impacted native vegetation comprises 54 scattered individual plants. Due to the absence of intact native vegetation communities the vegetation within the amendment area:
	has been assessed as Completely Degraded.
	do not represent any threatened ecological communities (TECs) or priority ecological communities (PECs).
	Do not contain any threatened or priority flora species.
	No Ecological Linkages are located within, or in the vicinity of, the amendment area (GoWA 2023; Perth Regional Ecological Linkages).
	The Vegetation Complexes Swan Coastal Plain dataset shows that the amendment areas are within three vegetation complexes: Bassendean Complex – Central and South,

ASPECT	EVALUATION OF IMPACTS
AGILET	Cannington Complex and Guildford Complex. As no intact
	native vegetation is present, the amendment areas do not contain any restricted vegetation complexes.
Fauna and Fauna Habitat	Due to the absence of intact fauna habitat within the amendment area, the lack of connectivity and being within an extensively developed urbanised area, only a depleted fauna assemblage comprising species capable of persisting in degraded urban habitats is expected. Harewood (2018, 2020) rated the fauna habitat values within the survey area as very low given the highly degraded condition. However, several conservation significant fauna species were identified as potentially utilising habitat within the survey area on occasions.
	Harewood (2018) recorded foraging evidence attributed to forest red-tailed black cockatoo ( <i>Calyptorhynchus banksii naso</i> ; listed as Vulnerable under the <i>Biodiversity Conservation Act 2016</i> (BC Act) and the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)) within the Hamilton Street survey area. The following species were also considered as potentially occurring:
	Baudin's cockatoo (Zanda baudinii; listed as Endangered under the BC Act and EPBC Act)
	Carnaby's cockatoo (Zanda latirostris; listed as Endangered under the BC Act and EPBC Act).
	<ul> <li>Peregrine falcon (Falco peregrinus; listed as other specially protected fauna by the Department of Biodiversity Conservation and Attractions, DBCA).</li> </ul>
	Given the amendment area comprises small, isolated remnants of <i>Corymbia calophylla</i> (marri), <i>Eucalyptus marginata</i> (jarrah), <i>Eucalyptus gomphocephala</i> (tuart), <i>E. rudis</i> (flooded gum) and <i>Xanthorrhoea preissii</i> (grass tree) over exotic species in Completely Degraded (Keighery, 1994) condition, the amendment area is considered to provide sparse and limited foraging resources potentially suitable for use by all three black cockatoo species.
	Harewood (2018, 2020) did not observe any evidence of black cockatoo roosting activity within the survey areas. However, it a known roost location occurs nearby at Lathlain Oval and Collier Park.
	Although there have been records of black cockatoo breeding within the metropolitan area, these are exceptions, and in some cases, may be linked to the installation of artificial nest hollows (e.g., at Murdoch University). Therefore, as the amendment area is not within a recognised breeding area for any of the black cockatoo species, the vegetation within the amendment area is not suitable nesting habitat.
	The peregrine falcon may occur infrequently when foraging in air space over the amendment area, but that breeding or long-term occupation is unlikely. Noting that the peregrine falcon is a highly mobile species with a large home range that does not rely on specialist niche habitats, the species is likely to be transient in the amendment area only and it is unlikely that the amendment area represents significant habitat for the species. Further, noting that the amendment area includes small, isolated, and disturbed remnants of native vegetation

ASPECT	EVALUATION OF IMPACTS
	adjacent to existing infrastructure in the Perth Metropolitan Area and that larger remnants of native vegetation exist in the vicinity (e.g., Canning River Regional Park), it is considered unlikely that the peregrine falcon would rely on the amendment area for foraging.
Environmentally Sensitive Areas (ESAs)	ESA mapping (GoWA 2023; DWER-046) shows one ESA intersects the Hamilton Street amendment area and an ESA intersects the Railway Parade amendment area. These ESAs are identified as being associated with a TEC which is not present within the amendment area.
Bush Forever	No Bush Forever Sites intersect the amendment area (GoWA 2023; DPLH-022).
Reserves / Conservation Areas	No DBCA managed Lands or Waters occur within or adjacent to the amendment area (GoWA 2023; DBCA-011, DBCA-012).
Heritage (Aboriginal and historic)	No State registered heritage places, Municipal heritage places registered Aboriginal heritage places intersect the amendment area (GoWA 2023; DPLH-001, DPLH-006, DPLH-008).
Geology and Soils	The amendment areas are on the Swan Coastal Plain, within the Bassendean Dune System. The 1:50,000 environmental geology mapping (Gozzard, 1986 and Jordan, 1986) indicate the amendment areas is located on Bassendean Sands or thin Bassendean Sand over Guildford Formation (Units, S <sub>8</sub> and S <sub>10</sub> ).  Unit S <sub>8</sub> comprises a white to pale grey at surface, yellow at depth, fine to medium-grained, moderately sorted sand.  Unit S <sub>10</sub> is the same as Unit S <sub>8</sub> except thinner vertical extent and occurs over sandy clay to clayey sand of the Guildford Formation.
Groundwater	The amendment areas are within the Perth Groundwater Area proclaimed under the <i>Rights in Water Irrigation Act 1914</i> (RIWI Act) (GoWA 2023; DWER-034). The amendment areas do not intersect any public drinking water source areas (GoWA 2023; DWER-033).
	According to the Perth Groundwater Map (DWER 2023) the depth to maximum groundwater level is approximately 5 metres below ground level (m BGL) within the Bank Street amendment areas. The maximum groundwater level within the Hamilton Street amendment area is shallow, ranging from ground level to less than 0.5 m BGL to ground level. The maximum groundwater level within the Railway Parade amendment area is approximately 2.5 m BGL.
Surface water	The Bank Street amendment areas are within the Swan River and Tributaries surface water management area and the Hamilton Street and Railway Parade amendment areas are within the Canning River surface water management area (GoWA 2023; DWER-042). No major watercourses or rivers intersect the amendment areas (GoWA 2023; DWER-031). No wetlands of significance (such as Ramsar sites, Directory of Important Wetlands in Australia, Conservation Category Wetlands or Resource Enhancement Wetlands occur within

ASPECT	EVALUATION OF IMPACTS
	the amendment area (GoWA 2023; DBCA-010, DBCA-045 and DBCA-019).
Contaminated sites and acid sulphate soils (ASS)	No contaminated sites intersect the amendment area (GoWA 2023; DWER-059).
	The amendment areas are mapped within a Class II acid sulphate soils (ASS) risk area (GoWA 2023; DWER-055). Class II risk represents a moderate to low risk of ASS occurring within 3 m of the natural surface and a high risk at depths greater than 3 m of the natural surface.

## 4. ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

The proposed clearing of native vegetation within the amendment area has been assessed against the Ten Clearing Principles (Table 4). The assessment determined that proposed clearing is not likely to be at variance with the Ten Clearing Principles.

Table 4. Ten Clearing Principles Assessment

CLE	EARING PRINCIPLE	ASSESSMENT OF IMPACTS	OUTCOMES
	Native vegetation should not be cleared if it comprises a high level of biological diversity.	The amendment area does not contain any intact native vegetation communities. A total of six native species are present and these are all common species.	Clearing is not at variance with Principle (a).
	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.	Black cockatoos are noted to forage on a range of plant species, with the primary foraging resources varying between species (Commonwealth of Australia 2012). Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (Banksia spp., Hakea spp., and Grevillea spp.), as well as Allocasuarina and Eucalyptus species, marri and a range of introduced species (Valentine and Stock, 2008). On the Swan Coastal Plain, it is noted that Banksia species (predominantly Banksia attenuata, B. menziesii and B. sessilis) are the most important natural food source for Carnaby's cockatoo, followed by marri (Groom et al. 2014). Forest red-tailed black cockatoos feed predominantly on the seeds of marri and jarrah, which comprise approximately 90% of their diet (DEC 2008). Baudin's cockatoos primarily feed on the seeds of jarrah and Proteaceous species (DEC 2008).  Some of the plant species recorded in the amendment area are primary foraging habitat for black cockatoos (such as Marri and Jarrah) and some are secondary foraging resources (such as Grass trees).  The impacted vegetation comprises 7 trees which constitute primary foraging resources (6 Marri and 1 Jarrah). A total of 30 grass trees	Clearing may be at variance with Principle (b).

OLEADING PRINCIPLE	A COFFORMENT OF IMPACTO	OUTCOMES
CLEARING PRINCIPLE	ASSESSMENT OF IMPACTS	OUTCOMES
	may be impacted. These provide negligible	
	foraging resources due to their small size and	
	are considered a secondary foraging resource. However, grass trees were included in the	
	assessment of CPS 9427/2 as a secondary	
	foraging resource.	
	Roosting typically occurs within suitable tall	
	trees close to an important water source and	
	within an area of quality foraging habitat	
	(Commonwealth of Australia 2012). As the	
	amendment area does not transect any	
	permanent watercourses and contains	
	sparsely distributed foraging habitat adjacent	
	to road and railway infrastructure, the	
	proposed clearing will not result in the loss of	
	significant roosting habitat for any black	
	cockatoo species. No evidence of roosting within the amendment area was noted by	
	Harewood (2018, 2020).	
	The amendment area is not within a	
	recognised breeding area for black cockatoos.	
	Critical habitat for Carnaby's cockatoo	
	includes any habitat that provides for feeding,	
	watering, regular night roosting and potential	
	for breeding (DPAW 2013). Regarding the	
	forest red-tailed black cockatoo and Baudin's	
	cockatoo, critical habitat for these species is defined as all marri, karri and jarrah forests,	
	woodlands and remnants in the south-west of	
	Western Australia receiving more than 600	
	millimetres of annual average rainfall (DEC	
	2008).	
	As the amendment area includes remnant	
	marri and jarrah on the Swan Coastal Plain,	
	the impacted vegetation may meet the	
	definition of critical habitat.	
	While the loss of the foraging habitat within the	
	amendment area may not represent a	
	significant impact to the continuation of black cockatoo species, it is acknowledged that the	
	proposed clearing will reduce local foraging	
	resources. It is also acknowledged that the	
	ongoing loss of foraging habitat on the Swan	
	Coastal Plain has been identified as a	
	significant risk to black cockatoo species (EPA	
	2019; DPAW 2012).	
	To mitigate impacts to local foraging	
	resources, the PTA has committed to undertaking replacement planting consistent	
	with the requirements under CPS 9427/2 to	
	compensate for impacts to primary foraging	
	resources (marri and jarrah). The	
	compensatory planting will include marri and	
	jarrah in landscaped areas within the project	
	footprint.	

CL	EARING PRINCIPLE	ASSESSMENT OF IMPACTS	OUTCOMES
		Impacts to secondary foraging resources (grass trees) will be managed via translocation of specimens which cannot be avoided. Translocation planting will occur within landscaped areas within the project footprint with the objective of achieving an 80% survival.	
		Based on the above assessment, the proposed clearing it is considered that the impacts to local black cockatoo foraging habitat will be adequately mitigated. After consideration of the mitigation measures, it is considered that the impacts of the proposed clearing on black cockatoo foraging habitat does not constitute a significant residual impact.	
(c)	Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	The amendment area does not contain any threatened or priority flora species.	Clearing is not at variance with Principle (c).
(d)	Native vegetation should not be cleared if it comprises the whole or a part of or is necessary for the maintenance of a threatened ecological community.	The amendment area does not contain any vegetation representative of a threatened ecological community (TEC).	Clearing is not at variance with Principle (d).
(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.	The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30% of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).	Clearing is not at variance with Principle (e).
		The current vegetation extent for the mapped Swan Coastal Plain vegetation complexes and vegetation extent within the local area fall below the 30% threshold. However, the Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region to be a constrained area, within which a minimum 10% representation threshold for ecological communities is recommended (EPA 2008). The current vegetation extent for the Swan Coastal Plain IBRA Bioregion, the Bassendean Complex- Central and South (26.87%) and the Cannington Complex (11.8%) are above the 10% threshold for constrained areas. There is less than 10% remaining of the Guildford Complex. However, the proposed amendment will only impact two marri trees within the area mapped as Guildford Complex. The loss of these trees will be mitigated with planting in the project area.	

CLEARING PRINCIPLE	ASSESSMENT OF IMPACTS	OUTCOMES
	As part of the Level Crossing Removal project, the PTA will be landscaping unused areas using locally native plant species which will enhance local environmental values.  Noting the above, the application area is not considered to be a significant remnant of native vegetation and the proposed clearing is not considered likely to have a significant impact on vegetation extent within the extensively cleared local area.	
(f) Native vegetation shoul be cleared if it is growin or in association with, a environment associated a watercourse or wetlar	g in, mapped within the amendment area. The presence of <i>Melaleuca rhaphiophylla</i> and with <i>Eucalyptus rudis</i> within the Hamilton Street	Clearing is not at variance with Principle (f).
(g) Native vegetation shoul be cleared if the clearing the vegetation is likely to cause appreciable land degradation.	d not g of The mapped soils within the amendment area are moderately susceptible to wind erosion.	Clearing is not at variance with Principle (g).
(h) Native vegetation shoul be cleared if the clearing the vegetation is likely to have an impact on the environmental values of adjacent or nearby conservation area.	g of nearest conservation area, the proposed clearing will not impact on the environmental values of any nearby conservation areas.	Clearing is not at variance with Principle (h).
(i) Native vegetation shoul be cleared if the clearing the vegetation is likely to cause deterioration in the quality of surface or underground water.	g of natural sources of perennial surface water, the condition of the vegetation, and extent of the	Clearing is not at variance with Principle (i).
(j) Native vegetation shoul be cleared if clearing the vegetation is likely to ca	increase or exacerbate the incidence or	Clearing is not at variance with Principle (j).

CLEARING PRINCIPLE	ASSESSMENT OF IMPACTS	OUTCOMES
or exacerbate, the incidence or intensity of flooding.	assessed and will be accommodated within the project footprint with drainage design, implementation of water sensitive urban design principles and construction to Australian standards. The drainage approach will capture, treat and infiltrate runoff from smaller, more frequent rainfall events. Runoff from larger rainfall events will be captured and released to the environment in a controlled approach ensuring flood risk to adjacent areas is not exacerbated.	
	Noting the above and the small extent of the additional clearing, the disturbed condition of the amendment area, the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.	

#### 5. AVOIDANCE AND MITIGATION

The avoidance and mitigation measures outlined previously for CPS 9427/2 will also be applied to the clearing proposed under this amendment application. This includes compliance with the Scope of Works and Technical Criteria (SWTC) which requires the Alliance Contractor to avoid and minimise clearing of vegetation. This is to be achieved by retaining vegetation where possible (native and non-native vegetation), and to use local tree and understorey species endemic to the vegetation complexes of the area to regenerate local biodiversity and create habitat within newly created landscape areas.

Prior to site clearing and earthworks, the Alliance Contractor will liaise with the Kaarakin Black Cockatoo Conservation Centre (Kaarakin) for the provision of items resulting from the clearance of trees and vegetation as per Kaarakin's requirements, including tree branches, tree seeds/nuts and wood chips. Suitable materials will be salvaged and used for injured black cockatoos undergoing rehabilitation where required by Kaarakin.

The project will create approximately 6 ha of newly landscaped areas that will:

- increase the total number of trees within the project area by undertaking planting using appropriate species and providing on-going maintenance to compensate the loss of mature trees.
- ensure known black cockatoo foraging species are not planted within 10 m of rail infrastructure or highway carriageways.

Landscaping plans are being developed by the Alliance Contractor in consultation with stakeholders such as the local government authorities. Landscaped areas will be created during construction and maintained post-construction to ensure survivability.

The PTA is confident that the Project will leave a net improvement in the local environmental values through improved landscaping and the establishment of locally native species within approximately 6 ha of open space created.

Compensatory measures (see Section 6) to mitigate the impacts to black cockatoo foraging habitat will be accommodated within the newly created landscape areas.

#### 6. COMPENSATORY PLANTING

Consistent with the conditions set out in CPS 9427/2, the PTA commits to the implementation of the following compensatory measures:

- Translocation of grass trees that cannot be avoided with the objective of achieving an 80% survival.
- Replacement planting of 36 trees to mitigate the loss of seven trees (six Marri and one Jarrah) which provide primary black cockatoo foraging habitat.

The number of trees to be planted to mitigate the loss of primary foraging habitat has been calculated using the WA Environmental Offset Calculator with the same input parameters used to establish the planting requirements set out in CPS 9427/2. A copy of the WA Environmental Offset Calculator is provided with this application. It is noted that Conservation Significance Score adopted by the Office of the Appeals Convenor was incorrectly applied on the basis that Baudin's cockatoo was critically endangered.

## 7. CONCLUSION

The IALXR project will deliver significant social, economic and environmental benefits. Compliance with the PTA's SWTC requirements and the conditions specified in CPS 9427/2 will ensure impacts to native vegetation are avoided and appropriately compensated where clearing is required. The IALXR project will deliver a net increase in local biodiversity within the project area.

## 8. REFERENCES

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species. Department of Sustainability, Environment, Water, Populations and Communities, Canberra.

Department of Environment and Conservation (DEC) (2008). Forest black cockatoo (Baudin's cockatoo,

Calyptorhynchus baudinii, and forest red-tailed black cockatoo, Calyptorhynchus banksii naso) Recovery Plan. Department of Environment and Conservation, Canberra.

Department of Parks and Wildlife (2013) Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Department of Parks and Wildlife, Perth, Western Australia.

Department of Water and Environmental Regulation (DWER) (2018). *Perth Groundwater Map*. Accessed 28 September 2023 https://maps.water.wa.gov.au/#/webmap/gwm Government of Western Australia, Perth.

Environmental Protection Authority (EPA) (2008). Guidance Statement 33 – Environmental guidance for planning and development, Environmental Protection Authority, Perth.

Environmental Protection Authority (EPA) (2019). EPA Technical Report: Carnaby's Cockatoo in Environmental Impact Assessment in the Perth and Peel Region. Advice of the Environmental Protection Authority under Section 16(j) of the *Environmental Protection Act 1986*. Environmental Protection Authority, Western Australia.

Government of Western Australia (GoWA) (2023). Data WA – WA Public Sector Data. Site: https://data.wa.gov.au.

Gozzard, J.R. (1986) Perth Sheet 2034 II and Part 2034 III and 2134 III. Perth Metropolitan region Environmental Geology Series, Geological Survey of Western Australia.

Groom C., Mawson P., Roberts J.D. and Mitchell N.J. (2014). Meeting an expanding human population's need whilst conserving a threatened parrot species in an urban environment. The Sustainable City 2014; IX(2): 1199-1212.

Harewood, G. (2018). Fauna Habitat Assessment – Wharf Street Level Crossing Removal Project, Cannington. Unpublished report prepared for Aurora Environmental on behalf of the Public Transport Authority of Western Australia.

Harewood, G. (2020). Fauna Habitat Assessment – Armadale Train Line. Unpublished report prepared for Aurora Environmental on behalf of the Public Transport Authority of Western Australia.

Jordan, J.E. (1986) Armadale, Part Sheets 2033 I and 2133 IV, Perth Metropolitan Region, Environmental Geology Series, Geological Survey of Western Australia.

Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) in the Gnangara Sustainability Strategy Study Area. Edith Cowan University and Department of Environment and Conservation.