

# Flynn Drive / Pinjar Road Intersection Works – Self Assessment of Significant Impacts

## 1. Purpose

The purpose of this document is to assess the significant impacts of the construction of the Flynn Drive / Pinjar Road Intersection Works on the *Calyptrorhynchus latirostris* (Carnaby's Black Cockatoo), and Banksia Woodland Threatened Ecological Community (TEC) to determine if a referral to the federal environment minister under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) is required.

## 2. Project Background

Banksia Grove Developments are currently looking to progress the extension / connection of Pinjar Road, Banksia Grove to Flynn Drive, Neerabup. The intersection where Pinjar Road will meet Flynn Drive will require widening to ensure that the intersection is compliant with Austroads Standards. The City of Wanneroo is proposing to clear 0.4254 hectares of vegetation within the southern portion of Lot 9000 Flynn Drive, Neerabup to facilitate the road widening (Attachment A). The extent of works associated with the intersection is shown in Attachment B.

## 3. Flora and Vegetation Assessment

The project is located within the Karrakata complex-Central and South vegetation system, which is described as predominately open forest of *Eucalyptus gomocephala*-*E. marginata*-*Corymbia calophylla* and woodland of *E. marginata*-*Banksia* spp. This vegetation complex has been heavily impacted by clearing for intensive horticulture, resource extraction and urban development.

Terratree (2016) were engaged by the City of Wanneroo to undertake a Flora Survey at Lot 9000 Flynn Drive, Neerabup for the purposes of establishing a baseline of the Conservation Area, set aside as an offset for the Meridian Business Park (EPBC 2007/3479). The survey covered a total area of 54 hectares and identified 132 vascular plant species, including 18 weed species. One individual of the Priority 2 species *Acacia benthamii* was observed during the survey, and is unlikely to occur in significant numbers within Lot 9000. One individual of the Priority 3 species *Stylidium maritimum* was observed, adjacent to a track on the eastern boundary. Only one individual of this species was observed, and it is unlikely to be widespread. Lot 9000 is covered by vegetation community AfBmHhMp, which is considered representative of the *Banksia Woodlands of the Swan Coastal Plain* TEC based on the presence of key diagnostic species *Banksia attenuata* and *B. menziesii* as a dominant component of the vegetation composition throughout this community.

Terratree (2016), assessed vegetation condition throughout Lot 9000 to be mostly Very Good to Excellent (excluding tracks), with disturbances restricted to the boundaries and tracks of the project area (edge effect). Vegetation in the southern portion of Lot 9000 was observed to be impacted by several environmental factors, including drought. Weed species occurred at low densities throughout the majority of Lot 9000, generally consisting of nonaggressive species such as *\*Briza maxima* and *\*Gladiolus caryophyllaceus*.

Lot 9000 Flynn Drive, Neerabup was assessed by Terratree (2016) as containing high value foraging habitat for Carnaby's Black Cockatoo, Endangered under the EPBC Act. Further to this, Lot 9000 Flynn Drive contains significant habitat trees with 14.7% containing potential breeding hollows.

A site inspection of the 0.4254 hectares proposed for clearing to facilitate the Flynn Drive / Pinjar Intersection Works was undertaken on 24 May 2017. The vegetation is considered Very Good with some areas considered degraded (tracks). This is consistent with the report by Terratree (2016), in which vegetation in the southern portion was identified as being impacted by disturbances (edge effect).

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## 4. Self-Assessment

### 4.1 Are there any Matters of National Environmental Significance (MNES) located in the area of the proposed actions?

There are two MNES located within the area of the proposed actions, these are:

- Carnaby's Black Cockatoo – Endangered Species; and
- Banksia Woodlands of the Swan Coastal Plain - Endangered Threatened Ecological Community.

### 4.2 Considering the proposed action at its broadest scope, is there potential for impacts on MNES?

The proposed clearing contains vegetation species that has the potential to be utilised by the Carnaby's Black Cockatoo for foraging habitat (*Banksia attenuata*, *Banksia menzeisii*, *Allocasuarina fraseriana* and *Eucalyptus marginata*). The area proposed for clearing contains one tree with potential breeding hollow and one significant tree.

### 4.3 Are there any proposed measures to avoid or reduce impacts on MNES?

To facilitate the construction of the Flynn Drive / Pinjar Road intersection, the vegetation requires removal to ensure compliance with Austroads Standards. The Flynn Drive / Pinjar Road Intersection are gazetted as Blue roads (other regional roads) under the Metropolitan Region Scheme; as a result the City is unable to avoid impacts to MNES.

### 4.4 Are any impacts of the proposed action on MNES likely to be significant impacts?

An assessment of significant impacts against the proposed action for each of the MNES has been conducted by City of Wanneroo Officers (Table 1).

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**Table 1: Risk Assessment of Significant Impacts**

<b>Banksia Woodland TEC</b>			
<b>Significant Impact Criteria</b> <i>An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:</i>	<b>Description of proposed action in relation to significant impact criteria</b>	<b>Likelihood (known, likely, possible, unlikely)</b>	<b>References</b>
Reduce the extent of an ecological community.	Clearing of 0.4254 hectare of a TEC.	The proposal to clear 0.4254 hectares of Very Good vegetation is unlikely to have a significant impact on the extent of an ecological community. The area proposed for clearing does not meet the minimum patch size and condition threshold for consideration as listed TEC for EPBC referral.	Site Photos.  Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).  Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community (EPBC Act, s266B).
Fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines.	Clearing of 0.4254 hectare of a TEC in a fragmented landscape.	The proposed action is within a developed area that has been previously fragmented from the construction of roads, industrial and residential development. The area proposed for clearing is currently being impacted by edge effects and is fragmented from the larger patch of vegetation. Therefore it is unlikely that the small and linear nature of the proposed action will fragment or increase fragmentation.	Historical Aerial Maps.  Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).
Adversely affect habitat critical to the survival of an ecological community	Clearing of 0.4254 hectares of vegetation in association with Banksia	The proposed clearing is bounded by conservation reserve to the	Bush Forever (Government of

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	Woodland TEC.	north, Bush Forever and conservation reserve to the south. Therefore the Banksia Woodland TEC is protected in perpetuity. The small and linear nature of the action is unlikely to adversely affect the ongoing survival of the Ecological Community.	Western Australia, 2000)  Desk top review of Intramaps.
Modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns.	Clearing of 0.4254 hectares of vegetation to facilitate the Flynn Drive / Pinjar Intersection Works.	Surface water will be drained to a sump within the area proposed for clearing in accordance with Australian Standards. The area proposed for clearing is not within a public Drinking Water Source Area. The clearing of 0.4254 hectares of vegetation to facilitate the construction of a road is unlikely to significantly impact on the abiotic factors necessary for the Banksia Woodland survival.	Design as per Australian Standards  Desk top review of Intramaps.
Cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting.	Clearing of 0.4254 hectares of vegetation to facilitate the Flynn Drive / Pinjar Intersection Works.	The proposed action to clear vegetation for the purposes of constructing an intersection is unlikely to cause a significant impact on the species composition due to the small and linear area and the nature of the activities.	Clearing Plan and contract clauses conditions
Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: assisting invasive species, that are harmful to the listed ecological community, to become established, or causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community	Clearing of 0.4254 hectares of vegetation to facilitate the construction of the Flynn Drive / Pinjar Intersection Works.	Clearing activities are unlikely to result in invasive species becoming established as the City of Wanneroo has procedures and practises in place to avoid and control invasive species.	City of Wanneroo Contractor Management.

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Interfere with the recovery of an ecological community.	Clearing of 0.4254 hectares of vegetation in association with Banksia Woodland TEC.	The federal Government does not recommend a recovery plan at this time. Threats to the ecological community include <i>Phytophthora cinnamomi</i> (Dieback). Clearing activities are unlikely to interfere with the recovery of the ecological community as the City of Wanneroo has procedures and practises in place that manage and control disease and invasive species.	Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community (EPBC Act, s266B).  City of Wanneroo Contractor Management.
<b>Carnaby's Black Cockatoo</b>			
<b>Significant Impact Criteria</b> <i>An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:</i>	<b>Description of proposed action in relation to significant impact criteria</b>	<b>Likelihood (known, likely, possible, unlikely)</b>	<b>References</b>
Lead to a long-term decrease in the size of a population.	The proposed action will result in clearing of vegetation utilised by Carnaby's Black Cockatoo populations for foraging habitat.	The clearing of 0.4254 hectares of vegetation suitable as foraging habitat for Carnaby's Black Cockatoo populations is unlikely to lead to a long-term decrease in the size of a population as there is vegetation suitable for foraging habitat, immediately adjacent to the proposed clearing, which has been set aside for Conservation.	Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).  Referral guidelines for threatened Black Cockatoo Species (Commonwealth of Australia 2012).
Reduce the area of occupancy of the species.	The proposed action will result in clearing of 0.4254 hectares occupied by Carnaby's Black Cockatoo.	The clearing of 0.4254 hectares of vegetation is unlikely to reduce the area of occupancy of the species as there is vegetation immediately adjacent to the proposed clearing,	Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).

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		which has been aside for Conservation.	
Fragment an existing population into two or more populations.	The proposed clearing will result in the removal of vegetation.	The proposed clearing is unlikely to fragment an existing population due to the small area proposed for clearing and the existing fragmentation of the vegetation proposed for clearing.	Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).
Adversely affect habitat critical to the survival of a species.	The proposed clearing will result in the removal of foraging and breeding habitat.	The proposed clearing may adversely affect habitat critical to the survival of a species due to the proposed removal of: <ul style="list-style-type: none"> <li>• one tree with potential breeding hollow;</li> <li>• one significant tree; and</li> <li>• clearing of foraging habitat.</li> </ul>	Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).
Disrupt the breeding cycle of a population.	The proposed clearing will result in the removal of potential; breeding trees.	The removal of one tree with a potential breeding hollow is not likely to disrupt the breeding cycle of the population due the availability of trees with breeding hollows in the adjacent conservation reserve. However the removal of one tree may increase competition with other breeding species.	Referral guidelines for threatened Black Cockatoo Species (Commonwealth of Australia 2012).
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.	The proposed action will result in clearing of 0.4254 hectares.	The proposed clearing is unlikely to cause the decline of the species as there is vegetation in excellent condition immediately adjacent to the area proposed for clearing.	Level 2 Flora & Vegetation Assessment of Conservation Offset Areas (Terratree, 2016).
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat.	The proposed action will result in clearing of 0.4254 hectares.	Clearing activities are unlikely to result in invasive species becoming established as the City of Wanneroo has procedures and practises in place to avoid and control invasive species.	Referral guidelines for threatened Black Cockatoo Species (Commonwealth of Australia 2012).  City of Wanneroo Contractor Management.

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Introduce disease that may cause the species to decline.	Clearing activities may result in the introduction of disease causing the Carnaby's Black Cockatoo habitat to decline.	Clearing activities are unlikely to result in invasive species becoming established as the City of Wanneroo has procedures and practises in place to avoid disease.	Referral guidelines for threatened Black Cockatoo Species (Commonwealth of Australia 2012).  City of Wanneroo Contractor Management.
Interfere with the recovery of the species.	Clearing of foraging and breeding habitat.	Clearing of Carnaby's Black Cockatoo foraging and breeding habitat may interfere with the recovery of the species as clearing activities are not consistent with Recovery Actions to protect and manage important habitat. The risk of this is considered low due to the small areas proposed for clearing.	Carnaby's Cockatoo (Calyptorhynchus latirostris) Recovery Plan (DPaW, 2013)



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### 5. Photos of the area proposed for clearing Lot 9000 Flynn Drive, Neerabup.



Figure1: Western end of the proposed clearing, standing on the existing road looking east. Vegetation is dominated by *Adenanthos cygnorum*.



Figure 2: Disturbed vegetation located in the mid-section of proposed area for clearing, standing on the sand track looking south.



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Figure 3: Vegetation in the mid-section of the area proposed for clearing, standing on the sand track, looking east.



Figure 4: Vegetation in Very Good condition in the mid-section of the proposed area for clearing, standing on the sand track, looking east.



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Figure 5: Degraded vegetation in the eastern section of the proposed area for clearing, standing on the sand track, looking west.

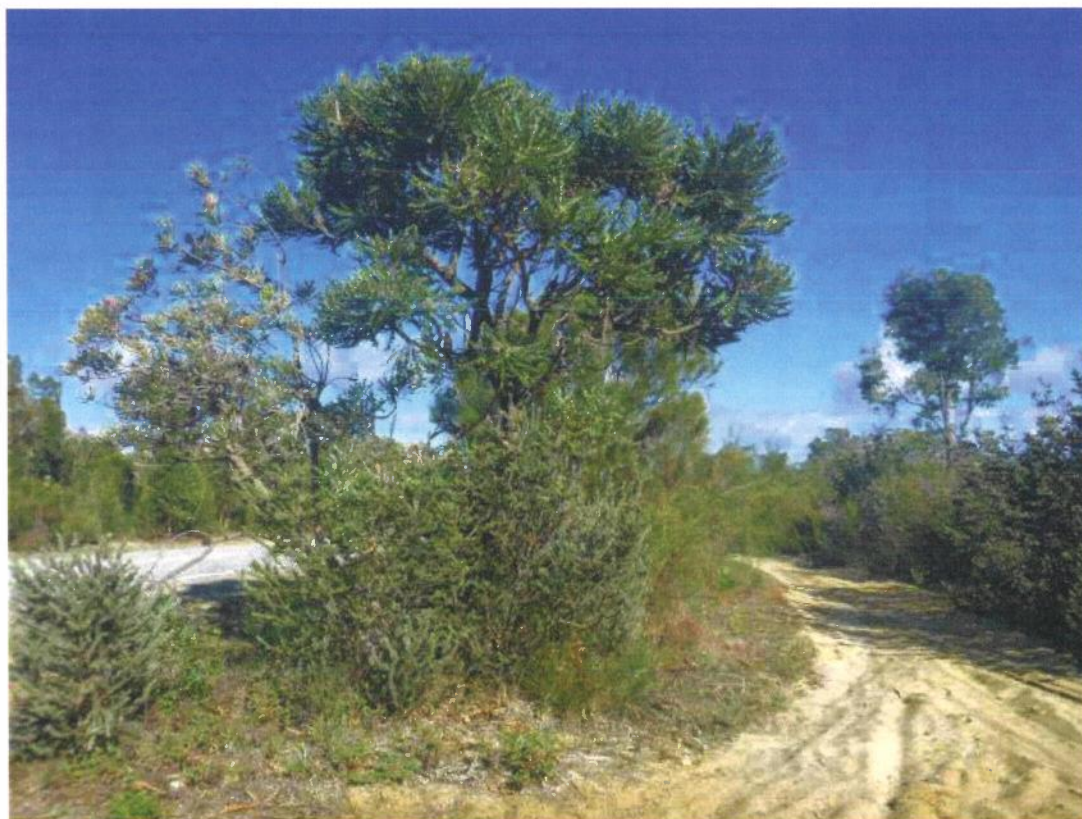


Figure 6: Vegetation at the eastern end of the proposed clearing, looking west with the existing road to the left and sand track to the right of the picture.

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### **6. Conclusion**

The clearing of 0.4254 hectares of vegetation to facilitate the construction of the Flynn Drive / Pinjar Road Intersection is not considered to have a significant impact on the Banksia Woodland TEC. The area proposed for clearing does not meet the minimum patch size and condition threshold for consideration as a listed TEC for an EPBC referral. Further to this the proposed clearing is bounded by conservation reserve to the north, Bush Forever and conservation reserve to the south. Therefore the Banksia Woodland TEC is protected in perpetuity.

The impact to Carnaby's Black Cockatoo habitat is not considered to be significant as the area proposed for clearing is less than the 1ha threshold of quality foraging habitat required for referral. The clearing of trees containing breeding habitat is restricted to a single tree with a potential breeding hollow and one significant tree. Furthermore, there is a conservation reserve containing excellent vegetation suitable for foraging and breeding habitat immediately adjacent to the area proposed for clearing.

Based on the above assessments, the City of Wanneroo does not consider a referral is required to the federal environment minister for assessment under the EPBC Act. Therefore the City is seeking agreement from Officer's from the Department of the Environment and Energy that a referral is not required in this instance.

