

# Annual Compliance Report 2021

Extension of Mundijong Road (EPBC 2011/5971)

## 1. Introduction

The City of Rockingham was granted approval (2011/5971) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 30 March 2012 to extend Mundijong Road in Baldivis, Western Australia. A variation was approved on 23 October 2013 to increase the area of native vegetation that could be cleared as part of the works and consequently, 11.9 hectares of native vegetation was approved for clearing within the development zone.

The works included the construction of a new single carriageway two way road (and associated other works) that extended from Baldivis Road to the east through to Mandurah Road to the west. The works commenced within the development zone on 5 April 2013 with the majority of clearing completed by 30 August 2013. The project was completed and the road was officially opened on 11 August 2015.

## 2. Purpose

The purpose of this report is to ensure compliance with Condition 9 of the EPBC Act decision notice which states:

*“Within three months of every 12 months anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any plan(s) as specified in the conditions. The report must stay on the website for at least five (5) years. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.”*

As the initial action commenced on the 5 April 2013 this report is due on the 5 July each year until the approval expires. The approval has effect until 31 December 2027.

## 3. Compliance with approval conditions

The table below summarises the City’s compliance with the approval conditions to date. A full copy of the EPBC Act Decision Notice can be found on the City of Rockingham website. Further explanation of the City’s compliance with these conditions is provided in the subsequent sections of this report.



**Table 1 – Approval conditions for EPBC 2011/5971**

No.	Condition	Status
1	Must not clear more than 11.9 ha of native vegetation	Complete
2(a)	Prepare, submit and implement a CEMP	Complete
2(b)	Prepare, submit and implement an EOMP	Ongoing
3	Implement a Black Cockatoo Habitat Revegetation and Rehabilitation Program	Ongoing
4	Offset areas must be placed under Conservation Covenant	Complete
5	Description, map and shapefiles of offset areas to be sent to the Department	Complete
6	Publish management plans on the City of Rockingham website	Complete
7	Advise the Department of the commencement of works	Complete
8	Maintain accurate records of all activities	Ongoing
9	Publish annual reports	Ongoing
10	Cannot carry out activities that are not approved	N/A
11	Minister may request revised plans if deemed necessary	N/A
12	If works have not commenced after 5 years then further approval must be sought	N/A

### 3.1. Condition 1 - Must not clear more than 11.9 ha of native vegetation

No further update since 2020 annual report.

### 3.2. Condition 2(a) - Prepare, submit and implement a CEMP

No further update since 2020 annual report.

### 3.3. Condition 2(b) - Prepare, submit and implement a EOMP

With reference to the Mundijong Road Extension Environmental Offsets Management Plan (EOMP) prepared in September 2013 and approved by the Minister (administering the *Environmental Protection and Biodiversity Conservation Act 1999* at the time of approval) in December 2013, the City confirms an ongoing commitment to the implementation of revegetation and rehabilitation works at the offset sites, Trenant Park Wetland (TPW) and Dixon Road Conservation Precinct (DRCP).

#### 3.3.1 Management objectives for offset sites

As listed in the EOMP the environmental performance objectives and indicators for management of the offset sites are detailed in Table 2.

**Table 2 – Environmental performance indicators for offset sites**

Item	Management objective	Target	Performance indicators	Status
1	To protect offset sites in conservation tenure	Offset sites secured in conservation covenants	Conservation covenant finalised	<b>Complete</b>
2	Damage to native vegetation and revegetation to be prevented	Fencing adequate and well maintained	Visual observations indicate no damage to fencing	<b>See Section 3.3.2 – Access</b>
3	To prevent the introduction and spread of weeds	Composition and cover of weed species within each zone reduced or unchanged baseline surveys	Monitoring indicates a reduction or no increase in extent and distribution of weed species	<b>See Section 3.3.3 – Weed control</b>
4	To prevent the introduction and spread of dieback	No introduction of dieback	Monitoring and visual observations indicate dieback absent	<b>See Section 3.3.4 – Dieback management</b>
5	To prevent increase in abundance of feral animals	No increase in abundance of feral animals or introduction of new feral species	Monitoring and visual observations indicate no additional damage to vegetation beyond that observed in baseline monitoring surveys	<b>See Section 3.3.5 – Feral animals</b>
6	To prevent unauthorised use and access	No damage to existing vegetation or revegetation caused by unauthorised human use/access	Monitoring and visual observations indicate no additional damage to vegetation beyond that observed in baseline monitoring surveys	<b>See Section 3.3.2 – Access</b>
7	To prevent fire incidents	No unauthorised fires	Absence of fire	<b>See Section 3.3.6 – Fire management</b>

### 3.3.2 Access

In accordance with the EOMP Management Objective Item 2 of the EOMP, the sites are regularly monitored during routine maintenance activities to ensure integrity of fences and access gates. Any breaches or damage to fencing is reported and repaired as soon as possible. Pedestrian swing gates create access points to formal path networks to rationalise pedestrian access and prevent trampling of vegetation.

### 3.3.3 Weed control

Regular chemical and manual weed control has continued this reporting period at both sites. This included maintenance sprays of the revegetation sites, and treatment of track and path edges to limit “edge effect” from weed intrusion.

### 3.3.4 Dieback management

In accordance with dieback hygiene procedures documented in the EOMP, measures to prevent the introduction or spread of dieback within the sites have continued to be implemented. Staff and contractors follow protocols for footwear, plant, machinery and other vehicles when entering the site. Although no dieback affected areas were identified in either offset area during the 2013 baseline studies, the City continues to visually monitor the reserves for evidence of new dieback infestations.

### 3.3.5 Feral animals

The City's annual feral animal control program has continued during the 2020/2021 financial year in accordance with the EOMP. Targets included the European rabbit (*Oryctolagus cuniculus*), foxes (*Vulpes vulpes*), and feral cats (*Felis catus*).

Control was focused on DCRP as no signs of target animals were detected at TPW. The program removed one fox from DRCP. Rabbits were controlled through destruction of any warrens located within DRCP. Rabbit Haemorrhagic Disease Virus (RHDV1 K5) was released again in autumn 2021 at several locations in City of Rockingham to assist with reduction in rabbit numbers.

### 3.3.6 Fire management

All firebreaks and emergency access points continue to be maintained to the City of Rockingham 2020/2021 Fire Control Notice specifications. Firebreaks are sprayed for weeds and pruned of vegetation as necessary as part of ongoing scheduled maintenance for each reserve.

### 3.3.7 Revegetation

In June 2021, a further 4,150 tubestock plants were infilled at DRCP into the priority planting area in the degraded north-west portion of the reserve. This area has previously been planted with species selected from the (then DEC's) "Plants Used by Carnaby's Black Cockatoo" ([https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/p4c\\_plantlist\\_20110415.pdf](https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/p4c_plantlist_20110415.pdf)) to ensure 75% of species planted provide Carnaby's Black Cockatoo, Forest Red-tailed Black Cockatoo and Baudin's Black Cockatoo feeding and breeding habitat in accordance with the EOMP. The plants used for this season are lower-stratum and mid-stratum plants associated with black cockatoo habitat and the tuart woodland, banksia woodlands and acacia shrubland vegetation communities found throughout the reserve.

Ongoing maintenance of planted areas has continued at both sites through 2020/2021. No priority revegetation areas have been identified at TPW during vegetation mapping undertaken by environmental consultants in 2017 for the City of Rockingham Wetland Management Plan. As such, existing areas will be monitored for success and be infilled as required to meet performance objectives. The 2021 monitoring has identified opportunity for further infill due to plant attrition. This will be coordinated for winter 2022.

### 3.3.8 Monitoring

Monitoring quadrats have been established as part of the City's offset monitoring program at each site. The representative quadrats are 10 x 10m plots, marked with GPS coordinates and stakes, and evaluated six-monthly in spring and autumn to determine seedling survival rates, persistent or new weed infestations and the overall condition of vegetation within the revegetation areas. Coverage and density of native and exotic species are recorded within the quadrats.

The results of the quadrat surveys can be seen below in Table 3. The variation between spring 2019 and spring 2020 values has been noted in the far right column of the table. Red has been used to indicate where there has been a negative variation in values (i.e. increase in weed coverage or decrease in native plants) and green for positive variation (i.e. decrease in weeds or increase in native plants). As of autumn 2021 average density of native species at DRCP was 40%. One of the three monitoring quadrats (DRCP 02) has seen much less planting than areas where the other two quadrats are installed. DRCP 02 has a density of 10% native cover, whereas DRCP 01 has 60% native cover and DRCP 02 has 50% native cover. This is an increase from autumn 2020 densities of 50% and 35%, respectively.

Additional site walk-throughs are undertaken during each monitoring period. Annual grass weeds were abundant in limited areas of TPW in spring 2020 as seen in Table 3. A new maintenance contract

commenced in early 2020. Grass treatment was identified in winter as an area of concern and subsequently became a strong focus through late spring for the reserve. Routine audits of TPW as part of the maintenance contract has seen a decline in the presence of these exotic grasses. The offset areas at DRCP are generally Good Condition (vegetation condition rating scale, Keighery 1994). Infill coverage is approaching 1 plant/m<sup>2</sup> and the *Eucalyptus gomphocephala* and *Corymbia calophylla* planted in the initial year of revegetation are becoming established and of adequate size to shade out weeds in the undergrowth.

Photographs are taken during routine monitoring, which allows assessment of long term changes in site condition (Tables 4-9).





**Table 3: Monitoring quadrat species composition for both sites**

Quadrat No.	Species	Spring 2019	Spring 2020	Variation from Spring 2019 to Spring 2020
<b>DRCP 01</b>	<i>Acacia rostellifera</i>	0	0	0
<b>mE384462</b>	<i>Agonis flexuosa</i>	1 plant	1 plant	0
<b>mN6427961</b>	<i>Corymbia calophylla</i>	1 plant	2 plants	↑ 1
	<i>Dodonaea hacketiana</i>	5 plants	5 plants	0
	<i>Eremophila glabra</i>	2 plants	2 plants	0
	<i>Eucalyptus gomphocephala</i>	2 plants	1 plant	↓ 1
	<i>Haka prostrata</i>	2 plants	2 plants	0
	<i>Hemiandra pungens</i>	1 plant	1 plant	0
	<i>Olearia axillaris</i>	2 plants	2 plants	0
	<i>Rhagodia baccata</i>	1 plant	1 plant	0
	* <i>Poa annua</i>	2%	0%	↓ 100%
	* <i>Ehrharta longiflora</i>	0	<1%	↑ <1%
	* <i>Euphorbia terracina</i>	0	<1%	↑ <1%
	* <i>Euphorbia</i> sp. (<2mm in size)	0	40%	↑ 40%
	* <i>Tribulus terrestris</i>	0	<1%	↑ <1%
<b>DRCP 02</b>	<i>Acacia rostellifera</i>	4 plants	3 plants	↓ 1
<b>mE384484</b>	<i>Eucalyptus gomphocephala</i>	3 plants	3 plants	0
<b>mN6427995</b>	<i>Haka prostrata</i>	2 plants	2 plants	0
	* <i>Avena barbata</i>	0	<1%	↑ <1%
	* <i>Avena fatua</i>	40%	0%	↓ 40%
	* <i>Ehrharta longiflora</i>	0	0	0
	* <i>Euphorbia terracina</i>	5%	0	↓ 5%
	* <i>Medicago polymorpha</i>	10%	0	↓ 10%
	* <i>Poa annua</i>	40%	0	↓ 40%
<b>DRCP 03</b>	<i>Acacia pulchella</i>	1 plant	1 plant	0
<b>mE384464</b>	<i>Acacia rostellifera</i>	2 plants	15 plants	↑ 13
<b>mN6428080</b>	<i>Banksia sessilis</i>	2 plants	2 plants	0
	<i>Boronia</i> sp.	1 plant	0	↓ 1
	<i>Conostylis aculeata</i>	0	1 plant	↑ 1
	<i>Gompholobium tomentosum</i>	2 plants	0	↓ 2
	<i>Haka prostrata</i>	3 plants	3 plants	0
	<i>Hardenbergia comptoniana</i>	4 plants	3 plants	↓ 1
	<i>Hemiandra pungens</i>	2 plants	2 plants	0
	<i>Olearia axillaris</i>	5 plants	5 plants	0
	<i>Phyllanthus calycinus</i>	1 plant	0	↓ 1



Quadrat No.	Species	Spring 2019	Spring 2020	Variation from Spring 2019 to Spring 2020
	Rhagodia baccata	5 plants	5 plants	0
	Templetonia retusa	1 plant	1 plant	0
	*Arctotheca calendula	<1%	0	↓ <1%
	*Avena fatua	5%	0	↓ 5%
	*Crepis foetida	<1%	0	↓ <1%
	*Euphorbia terracina	5%	<2%	↓ 3%
	*Poa annua	5%	0	↓ 5%
	*Solanum nigrum	1 plant	0	↓ 1
	*Sonchus tenerrimus	<1%	0	↓ <1%
	*Trachyandra divaricata	<1%	<1%	0
	*Tribulus terrestris	<1%	<1%	0
<b>TPW 01</b>	Acacia pulchella	0	2 plants	↑ 2
<b>mE384327</b>	Acacia saligna	0	1 plant	↑ 1
<b>mN6411816</b>	Austrostipa sp.	0	<1%	↑ <1%
	Baumea juncea	0	<1%	↑ <1%
	Clematis pubescens	0	1 plant	↑ 1
	Eucalyptus gomphocephala	3 plants	3 plants	0
	Gompholobium sp.	1 plant	0	↓ 1
	Juncus kraussii	0	<1%	↑ <1%
	Lepidosperma longitudinale	20%	<20%	0
	Rhagodia baccata	0	10 plants	↑ 10
	Spyridium globulosum	1 plant	3 plants	↑ 2
	Tricoryne tenella	0	1 plant	↑ 1
	*Avena fatua	0	<5%	↑ <5%
	*Briza maxima	<1%	1%	0
	*Ehrharta calycina	0	<10%	↑ <10%
	*Eragrosis curvula	<1%	<10%	↑ 9%
	*Euphorbia terracina	1 plant	<1%	N/A
	*Fumaria capreolata	10%	<10%	0
	*Poa annua	<1%	0	↓ <1%
	*Solanum nigrum	0	1 plant	↑ 1
	*Sonchus tenerrimus	2 plants	1 plant	↓ 1
	*Stenotaphrum secundatum	5%	<20%	↑ <15%
	*Vici asp.	0	<1%	↑ <1%
<b>TPW 02</b>	Acacia pulchella	1 plant	2 plants	↑ 1
<b>mE384402</b>	Acacia saligna	0	1 plant	↑ 1
<b>mN6412089</b>	Banksia littoralis	1 plant	1 plant	0
	Banksia sessilis	1 plant	1 plant	0
	Carpobrotus virescens	1 plant	0	↓ 1
	Corymbia calophylla	23 plants	20 plants	↓ 3
	Eucalyptus gomphocephala	4 plants	3 plants	↓ 1
	Ficinia nodosa	<5%	<5%	0
	Hakea prostrata	2 plants	2 plants	0
	Hakea varia	2 plants	1 plant	↓ 1
	Isolepis cernua	1 plant	0	↓ 1
	Leucopogon parviflorus	1 plant	1 plant	0
	Lobelia tenuor	<1%	0	↓ <1%
	Muehlenbeckia adpressa	3 plants	<1%	N/A
	*Arctotheca calendula	4 plants	<1%	N/A
	*Ehrharta calycina	<1%	<1%	0
	*Euphorbia terracina	<1%	<1%	0
	*Fumaria capreolata	<1%	<1%	0
	*Hypochoeris tadicata	0	<1%	↑ <1%
	*Rumex spp	<1%	0	↓ <1%

Quadrat No.	Species	Spring 2019	Spring 2020	Variation from Spring 2019 to Spring 2020
	*Scabiosa atropurpurea	<1%	0	↓ <1%
	*Senecio condylos	1 plant	<1%	N/A
	*Sonchus tenerrimus	1 plant	0	↓ 1
	*Veronica spp	<1%	<1%	0
<b>TPW 03</b>	Acacia pulchella	3 plants	0	↓ 3
<b>mE384419</b>	Acacia saligna	2 plants	3 plants	↑ 1
<b>mN6412167</b>	Banksia grandis	4 plants	2 plants	↓ 2
	Banksia littoralis	6 plants	3 plants	↓ 3
	Banksia menziesii	0	1 plant	↑ 1
	Banksia sessilis	4 plants	2 plants	↓ 2
	Callitris preissii	4 plants	4 plants	0
	Clematis pubescens	0	1 plant	↑ 1
	Eucalyptus gomphocephala	9 plants	7 plants	↓ 2
	Ficinia nodosa	<1%	<1%	0
	Haka prostrata	8 plants	8 plants	0
	Hakea varia	2 plants	1 plant	↓ 1
	Isolepis cernua	<1%	0	↓ <1%
	Lepidosperma longitudinale	<1%	<1%	0
	Lobelia tenuior	<1%	0	↓ <1%
	Rhagodia bacata	1 plant	3 plants	↑ 2
	Spyridium globulosum	0	1 plant	↑ 1
	*Arctotheca calendula	<2%	0	↓ <2%
	*Avena barbata	0	<1%	↓ <1%
	*Avena fatua	<1%	<1%	0
	*Briza maxima	<5%	20%	↑ >15%
	*Conyza spp	<1%	10%	↑ >9%
	*Crepis foetida	1 plant	0	↓ 1
	*Ehrharta calycina	<1%	<1%	0
	*Ehrharta longiflora	0	<1%	↑ <1%
	*Fumaria capreolata	<1%	<1%	0
	*Poa annua	<1%	<50%	↑ 49%
	*Trachyandra divaricata	1 plant	1 plant	0
	*Veronica spp.	<1%	<10%	↑ 9%

**Table 4: Revegetation monitoring – Quadrat 1 Dixon Road Conservation Precinct**

 <p><b>Spring 2019</b></p>	 <p><b>Autumn 2020</b></p>
 <p><b>Spring 2020</b></p>	 <p><b>Autumn 2021</b></p>

**Table 5: Revegetation monitoring – Quadrat 2 Dixon Road Conservation Precinct**

 <p><b>Spring 2019</b></p>	 <p><b>Autumn 2020</b></p>
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**Spring 2020**



**Autumn 2021**

**Table 6: Revegetation monitoring – Quadrat 3 Dixon Road Conservation Precinct**



**Spring 2019**



**Autumn 2020**



**Spring 2020**



**Autumn 2021**

**Table 7: Revegetation monitoring – Quadrat 1 Trenant Park Wetland**



**Spring 2019**



**Autumn 2020**

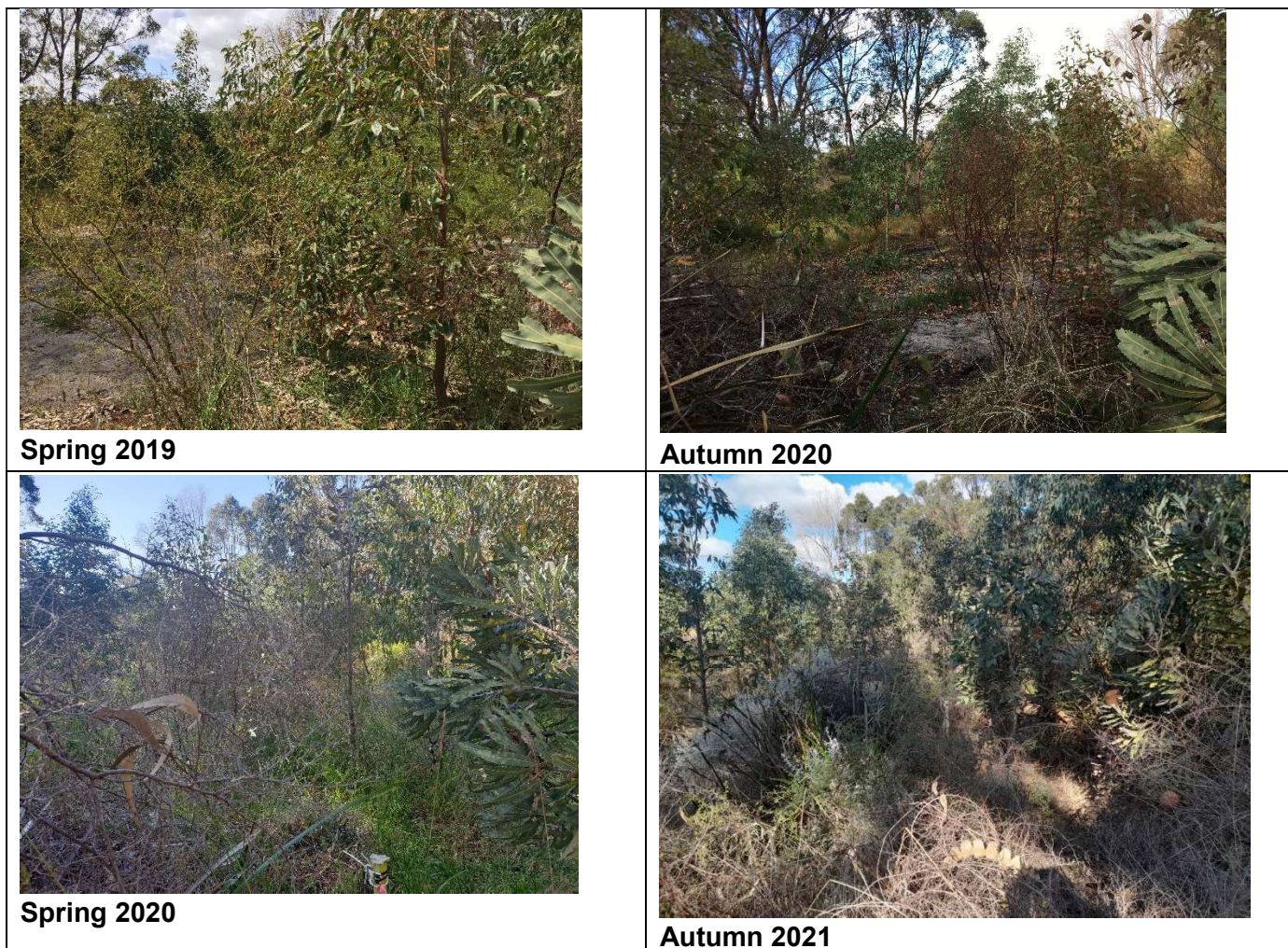


**Spring 2020**

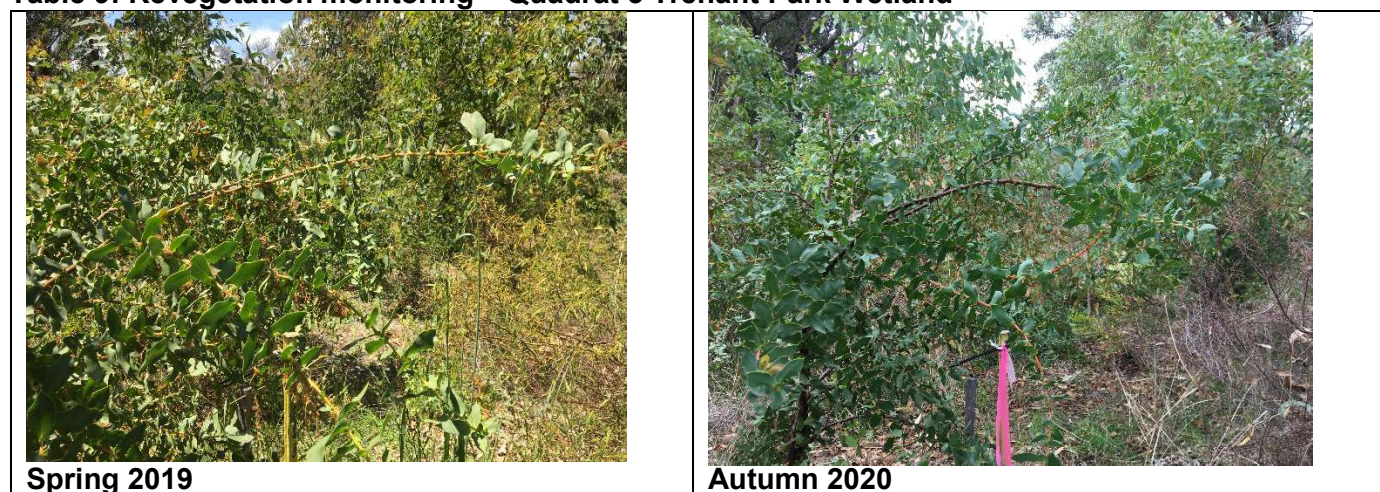


**Autumn 2021**

**Table 8: Revegetation monitoring – Quadrat 2 Trenant Park Wetland**

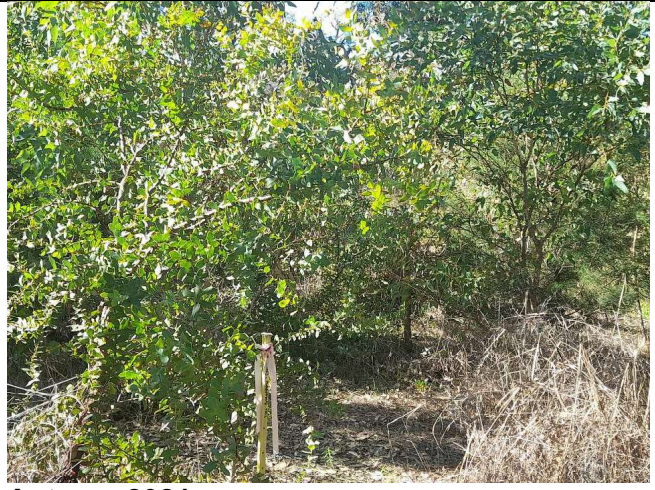


**Table 9: Revegetation monitoring – Quadrat 3 Trenant Park Wetland**





**Spring 2020**



**Autumn 2021**

### **3.4. Condition 3 - Implement a Black Cockatoo Habitat Revegetation and Rehabilitation Program**

This is part of the approved Environmental Offsets Management Plan identified in section 3.3

### **3.5. Condition 4 - Offset areas must be placed under Conservation Covenant**

No further update since 2020 annual report.

### **3.6. Condition 5 - Description, map and shapefiles of offset areas to be sent to the Department**

No further update since 2020 annual report.

### **3.7. Condition 6 - Publish management plans on the City of Rockingham website**

All management plans remain on the City of Rockingham website:

<https://rockingham.wa.gov.au/planning-and-building/current-projects-and-works/kulija-road>

### **3.8. Condition 7 - Advise the Department of the commencement of works**

No further update since 2020 annual report.

### **3.9. Condition 8 - Maintain accurate records of all activities**

The City continues to maintain accurate records substantiating all activities associated with or relevant to the conditions of approval. As the road is now complete, these ongoing records primarily relate to the implementation of the Environmental Offsets Management Plan and include, but are not limited to, weed control schedules, revegetation records and black cockatoo nesting box installation details, as well as correspondence with state government land agencies to arrange the Conservation Covenants for offset areas.

### **3.10. Condition 9 - Publish annual reports**

This is the eighth annual reporting detailing the City's compliance with the conditions of approval and can be found on the City of Rockingham website.

### **3.11. Condition 10 - Cannot carry out activities that are not approved**

No further update since 2020 annual report.

### **3.12. Condition 11 - Minister may request revised plans if deemed necessary**

No further update since 2020 annual report.