Annual Compliance Report 2020

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 2019 annual report.

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

No further update since 2019 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	Complete
2	Damage to native vegetation and revegetation to be prevented	Fencing adequate and well maintained	Visual observations indicate no damage to fencing	See Section 3.3.2 – Access
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	See Section 3.3.3 – Weed control
4	To prevent the introduction and spread of dieback	No introduction of dieback	Monitoring and visual observations indicate dieback absent	See Section 3.3.4 – Dieback management
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	See Section 3.3.5 – Feral animals
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	See Section 3.3.2 – Access
7	To prevent fire incidents	No unauthorised fires	Absence of fire	See Section 3.3.6 – Fire management

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, 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 2019/2020 financial year in accordance with the EOMP. Targets included the European rabbit (*Oryctolagus cuniculus*), foxes (*Vulpes vulpes*), and feral cats (*Felis catus*).

The program removed three foxes from DRCP and shot three rabbits. Rabbits were further controlled through destruction of any warrens located within the DRCP. No foxes or rabbits were observed at TPW, therefore no control measures were implemented. No feral cats were observed at either site.

3.3.6 Fire management

All firebreaks and emergency access points continue to be maintained to the City of Rockingham 2019/2020 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

Plants have been 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) 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. In June 2020, a further 4,560 tubestock plants were infilled at DRCP into the priority planting area in the degraded north west portion of the reserve.

Ongoing maintenance of planted areas has continued at both sites through 2019/2020. 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.

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 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 Autumn 2019 and Autumn 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 natives). As mentioned in Section 3.3.7., further revegetation has taken place at DRCP this season following intensive weed control, which will progress the reserve towards achieving performance targets. Of most concern is the loss of Banskia species at TPW. This is most likely due to natural attrition which can be expected in revegetation projects. Further assessment in Spring 2020 will include quantifying plant numbers for infill of these areas of plant loss.

Photographs are also 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	Autumn 2019	Spring 2019	Autumn 2020	Variation from Autumn 2019 to Autumn 2020
DRCP 01	Acacia rostellifera	2 plants	0	0	↓ 2
mE384462	Agonis flexuosa	1 plant	1 plant	1 plant	0
mN6427961	Corymbia calophylla	0 plants	1 plant	2 plants	↑ 2
	Dodonaea hacketiana	4 plants	5 plants	5 plants	↑ 1
	Eremophila glabra	3 plants	2 plants	2 plants	↓ 1
	Eucalyptus gomphocephala	4 plants	2 plants	1 plant	↓ 3
	Haka prostrata	2 plants	2 plants	2 plants	0
	Hemiandra pungens	1 plant	1 plant	1 plant	0
	Olearia axillaris	2 plants	2 plants	3 plants	↑ 1
	Rhagodia baccata	1 plant	1 plant	1 plant	0
	*Poa annua	0	2%	0%	0
	*Ehrharta longiflora	0	0	<1%	↑ <1%
DRCP 02	Acacia rostellifera	3 plants	4 plants	3 plants	0
mE384484	Eucalyptus gomphocephala	3 plants	3 plants	3 plants	0
mN6427995	Haka prostrata	2 plants	2 plants	2 plants	0
	*Avena fatua	0	40%	<1%	↑ <1%
	*Ehrharta longiflora	0	0	<1%	↑ <1%
	*Euphorbia terracina	0	5%	<5%	↑ <5%
	*Medicago polymorpha	0	10%	0	0
	*Poa annua	0	40%	0	0
DRCP 03	Acacia pulchella	0	1 plant	1 plant	↑ 1
mE384464	Acacia rostellifera	0	2 plants	11 plants	↑ 11
mN6428080	Acanthocarpus preissii	1 plant	0	0	↓ 1
	Banksia sessilis	4 plants	2 plants	2 plants	↓ 2
	Boronia sp.	0	1 plant	1 plant	↑ 1
	Conostylis aculeta	0		1 plant	↑ 1
	Gompholobium tomentosum	0	2 plants	0	0
	Haka prostrata	2 plants	3 plants	3 plants	↑ 1
	Hardenbergia comptoniana	2 plants	4 plants	3 plants	↑ 1
	Hemiandra pungens	2 plants	2 plants	2 plants	0
	Olearia axillaris	2 plants	5 plants	6 plants	↑ 4
	Phyllanthus calycinus	1 plant	1 plant	1 plant	0
	Rhagodia baccata	1 plant	5 plants	4 plants	↑ 3
	Templetonia retusa	1 plant	1 plant	1 plant	0
	*Arctotheca calendula	0	<1%	<1%	↑ <1%
	*Avena fatua	0	5%	5%	↑ 5%
	*Crepis foetida	0	<1%	0	0
	*Euphorbia terracina	0	5%	<1%	↑ <1%
	*Poa annua	0	5%	0	0
	*Solanum nigrum	0	1 plant	0	0
	*Sonchus tenerrimus	0	<1%	0	0
	*Trachyandra divaricata	2 plants	<1%	1%	-
	*Tribulus terrestris	0	<1%	<1%	↑ <1%
TP 01	Acacia saligna	2 plants	0	0	↓ 2
mE384327	Eucalyptus gomphocephala	3 plants	3 plants	3 plants	0
mN6411816	Gompholobium sp.	0	1 plant	0	0
	Lepidosperma longitudinale	25%	20%	20%	↓ 5%
	Spyridium globulosum	1 plant	1 plant	2 plants	↑ 1

Quadrat No.	Species	Autumn 2019	Spring 2019	Autumn 2020	Variation from Autumn 2019 to Autumn 2020
	*Avena fatua	0	0	<5%	↑ <5%
	*Briza maxima	0	<1%	0	0
	*Ehrharta calycina	0	0	<5%	↑ <5%
	*Eragrosis curvula	0	<1%	5%	↑ 5%
	*Euphorbia terracina	0	1 plant	0	0
	*Fumaria capreolata	0	10%	<1%	↑ <1%
	*Poa annua	10%	<1%	0	↓ 10%
	*Solanum nigrum	0	0	1 plant	↑ 1
	*Sonchus tenerrimus	0	2 plants	0	0
	*Stenotaphrum secundatum	5%	5%	5%	0
TP 02	Acacia pulchella	5 plants	1 plant	3 plant	↓ 2
mE384402	Banksia littoralis	2 plants	1 plant	0 plant	↓ 2
mN6412089	Banksia sessilis	1 plants	1 plant	0 plant	↓ 1
	Carpobrotus virescens	0	1 plant	0 plant	0
	Corymbia calophylla	20 plants	23 plants	23 plants	↑ 3
	Eucalyptus gomphocephala	4 plants	4 plants	4 plants	0
	Ficinia nodosa	6%	<5%	<5%	↓ 1%
	Hakea prostrata	2 plants	2 plants	2 plants	0
	Hakea varia	2 plants	2 plants	0 plants	↓ 2
	Isolepsis cernua	0	1 plant	0	0
	Leucopogon parviflorus	1 plant	1 plant	1 plant	0
	Lobelia tenuor	0	<1%	0	0
	Muehlenbeckia adpressa	0	3 plants	0	0
	*Arctotheca calendula	0	4 plants	<1%	↑ <1%
	*Ehrharta calycina	0	<1%	<1%	↑ <1%
	*Euphorbia terracina	0	<1%	<1%	↑ <1%
	*Fumaria capreolata	0	<1%	<1%	↑ <1%
	*Hypochoeris tadicata	0	0	<1%	↑ <1%
	*Rumex spp	0	<1%	0	0
	*Scabiosa atropurpurea	0	<1%	0	0
	*Senecio condylos	0	1 plant	0	0
	*Sonchus tenerrimus	0	1 plant	0	0
	*Veronica spp	0	<1%	<1%	↑ <1%
TP 03	Acacia pulchella	2 plants	3 plants	0 plants	↓ 2
mE384419	Acacia saligna	2 plants	2 plants	2 plants	0
mN6412167	Banksia grandis	4 plants	4 plants	3 plants	↓ 1
	Banksia littoralis	5 plants	6 plants	1 plants	↓ 4
	Banksia sessilis	6 plants	4 plants	2 plants	↓ 4
	Callitris preissii	6 plants	4 plants	4 plants	↓ 2
	Eucalyptus gomphocephala	7 plants	9 plants	7 plants	0
	Ficinia nodosa	<1%	<1%	<1%	0
	Haka prostrata	8 plants	8 plants	8 plants	0
	Hakea varia	2 plants	2 plants	1 plants	↓ 1
	Isolepsis cernua		<1%		0
	Lepidosperma longitudinale	<2%	<1%	<1%	↓ 1%
	Lobelia tenuior		<1%		0
	Rhagodia bacata	1 plant	1 plant	0 plants	↓ 1
	*Arctotheca calendula	0	<2%	0	0
	*Avena barbata	0	0	5%	↑ 5%
	*Avena fatua	0	<1%	<1%	↑ <1%
	*Briza maxima	0	<5%	0	0
	*Conyza spp	0	<1%	0	0
	*Crepis foetida	0	1 plant	0	0

Quadrat No.	Species	Autumn 2019	Spring 2019	Autumn 2020	Variation from Autumn 2019 to Autumn 2020
	*Ehrharta calycina	0	<1%	<1%	↑ <1%
	*Ehrharta longiflora	0	0	5%	↑ 5%
	*Fumaria capreolata	0	<1%	0%	0
	*Poa annua	<1%	<1%	0	↓ <1%
	*Solanum nigrum	<1%	0	0	↓ <1%
	*Trachyandra divaricata	0	1 plant	0	0
	*Veronica spp.	0	<1%	0	0

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

 Spring 2018	 Autumn 2019
 Spring 2019	 Autumn 2020

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

 Spring 2018	 Autumn 2019
 Spring 2019	 Autumn 2020

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

 Spring 2018	 Autumn 2019
 Spring 2019	 Autumn 2020

Table 7: Revegetation monitoring – Quadrat 1 Trenant Park Wetland

 Spring 2018	 Autumn 2019
	

Table 8: Revegetation monitoring – Quadrat 2 Trenant Park Wetland

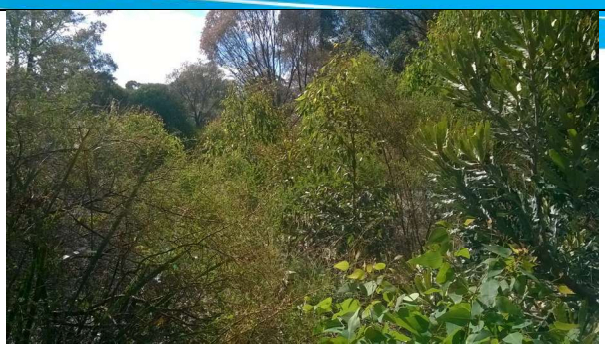 Spring 2018	 Autumn 2019
 Spring 2019	 Autumn 2020

Table 9: Revegetation monitoring – Quadrat 3 Trenant Park Wetland

 Spring 2018	 Autumn 2019
 Spring 2019	 Autumn 2020

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 2019 annual report. The Conservation Covenants for TPW and DRCP have both been ratified by Landgate.

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

These items were sent as part of the Environmental Offsets Management Plan. The shapefiles were resent to the Department of the Environment on 4 June 2015.

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 2019 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 seventh 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 2019 annual report.

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

No further update since 2019 annual report.