

# City of Rockingham

## EPBC 2011/5971 - Annual Compliance Report 2022 Extension of Mundijong Road

### 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

Table 1 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**

Condition No.	Details	Status	Comment
1	Must not clear more than 11.9 ha of native vegetation	Completed	No further update since 2021 annual report.
2(a)	Prepare, submit and implement a CEMP	Completed	No further update since 2021 annual report.
2(b)	Prepare, submit and implement an EOMP	In Progress	See Table 3 and Section 5
3	Implement a Black Cockatoo Habitat Revegetation and Rehabilitation Program	In Progress	See Section 5
4	Offset areas must be placed under Conservation Covenant	Completed	No further update since 2021 annual report.
5	Description, map and shapefiles of offset areas to be sent to the Department	Completed	No further update since 2021 annual report.
6	Publish management plans on the City of Rockingham website	Completed	All management plans remain on the City of Rockingham website: <a href="https://rockingham.wa.gov.au/planning-and-building/current-projects-and-works/kulija-road">https://rockingham.wa.gov.au/planning-and-building/current-projects-and-works/kulija-road</a>
7	Advise the Department of the commencement of works	Completed	No further update since 2021 annual report.
8	Maintain accurate records of all activities	In Progress	See Section 5
9	Publish annual reports	In Progress	Annual reports can be found on the City of Rockingham website <a href="https://rockingham.wa.gov.au/planning-and-building/current-projects-and-works/kulija-road">https://rockingham.wa.gov.au/planning-and-building/current-projects-and-works/kulija-road</a>
10	Cannot carry out activities that are not approved	N/A	No further update since 2021 annual report.
11	Minister may request revised plans if deemed necessary	N/A	No further update since 2021 annual report.
12	If works have not commenced after 5 years then further approval must be sought	N/A	No further update since 2021 annual report.

#### **4. Management objectives and actions for offset sites**

As outlined in the Mundijong Road Environmental Offsets Management Plan (EOMP):

*“The overall aim for the offset sites will be rehabilitation of native vegetation to a condition that will, in the future, likely support a self-sustaining plant community with improved density and diversity to the pre-existing vegetation.*

*More specifically, the management objectives are to protect and maintain the offset sites by:*

- *improving and maintaining habitat suitable for foraging, breeding and roosting by black-cockatoo species*
- *managing introduced species (weeds and feral animals)*
- *applying the appropriate conservation tenure to ensure long-term protection*
- *controlling access by pedestrians and vehicles.*

Tables 2 and 3 below show the management objectives and management actions for the offset sites as listed in the EOMP. Details on how these have been addressed can be found in Section 5.

**Table 2 – Management objectives for offset sites**

<b>Management objective</b>	<b>Target</b>	<b>Performance indicators</b>	<b>Status</b>
To protect offset sites in conservation tenure	Offset sites secured in conservation covenants	Conservation covenant finalised	Completed
Damage to native vegetation and revegetation to be prevented	Fencing adequate and well maintained	Visual observations indicate no damage to fencing	In Progress
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	In Progress
To prevent the introduction and spread of dieback	No introduction of dieback	Monitoring and visual observations indicate dieback absent	In Progress
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	In Progress
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	In Progress
To prevent fire incidents	No unauthorised fires	Absence of fire	In Progress

**Table 3 – Management actions for offset sites**

<b>Parameter</b>	<b>Action</b>	<b>Status</b>	<b>Comment</b>
Conservation covenant	Apply conservation covenant to site	Completed	No further update since 2021 annual report.
Baseline studies (Site 1 only)	Undertake flora and fauna surveys at site to: <ul style="list-style-type: none"> <li>confirm and map the vegetation type and condition</li> <li>identify the Threatened or Priority flora and Declared Plant species</li> <li>identify the presence or absence of dieback</li> <li>identify protected fauna or their habitat.</li> </ul>	Completed	No further update since 2021 annual report.
Weeds	<ol style="list-style-type: none"> <li>Weed control (informed by baseline study/s) to be undertaken prior to undertaking direct seeding and planting.</li> <li>Weed control methods to be acceptable to relevant City of Rockingham and DBCA standards.</li> <li>Control methods for any weeds listed as Declared Plants to be undertaken in accordance with guidelines of the DA.</li> <li>Weed infestations immediately adjacent to watercourses should be removed by hand where practicable or be sprayed in a manner which prevents overspray to the watercourse.</li> <li>Develop an ongoing weed management program to be implemented for the offset sites.</li> </ol>	Completed	No further update since 2021 annual report.
		In Progress	See Section 5.2 Weed Control
		In Progress	See Section 5.2 Weed Control
		In Progress	See Section 5.2 Weed Control
		In Progress	See Section 5.2 Weed Control
Dieback	<ol style="list-style-type: none"> <li>Limit vehicles to designated tracks.</li> <li>Quarantine any areas identified to be infected with dieback in the baseline studies.</li> <li>Ensure any soil or mulch used on site is certified dieback free.</li> </ol>	In Progress	See Section 5.3 Dieback
Feral animals	<ol style="list-style-type: none"> <li>Conduct rabbit control in offset sites.</li> <li>Erect agricultural fencing around boundary of site.</li> </ol>	In Progress	See Section 5.4 Feral Animals
Access	Assess and rationalise existing pathways and public access points.	In Progress	See Section 5.5 Access
Fauna	Provide habitat by placement of habitat logs and tree hollows from the Development Site.	Completed	No further update since 2021 annual report.

Parameter	Action	Status	Comment
Signage	Install interpretive and educational signage.	In Progress	Interpretive signage has been installed at Dixon Road Conservation Precinct including three wayfinding maps and four interpretive/information flora and fauna signs.
Seed collection	<ol style="list-style-type: none"> <li>1. Compile list of appropriate species to be planted in revegetation areas based on flora and vegetation surveys of each offset site.</li> <li>2. Prior to clearing Development Site, collect seed from any suitable species (i.e., Carnaby's black-cockatoo habitat species and species suitable to vegetation types recorded in offset sites).</li> <li>3. If sufficient seed is not available from other sources, will be collected preferably from Bush Forever site 379 (for Site 1) and Bush Forever Site 356 (for Site 2).</li> <li>4. Appropriate licences to be obtained from DER for seed collection within any DPaW managed land.</li> </ol>	In Progress	See Section 5.6 Revegetation
Site preparation	<ol style="list-style-type: none"> <li>1. Undertake site preparations (e.g. cultivation/scarification in compacted bare areas, pre-planting weed removal, placement of habitat logs, placement of topsoil).</li> <li>2. Except where cultivation/scarification is required, ensure soil disturbance is minimised to prevent weed germination.</li> <li>3. Development Site to be transferred to any suitable areas of rehabilitation sites (i.e., accessible by vehicle, in Degraded – Completely Degraded condition).</li> </ol>	Completed	No further update since 2021 annual report.
Revegetation	<ol style="list-style-type: none"> <li>1. Plant seedlings in areas where insufficient seed is available for species appropriate to the vegetation type, or where rapid results are required (e.g. where heavy weed invasion is likely to outcompete native seed germination).</li> <li>2. Propagate seedlings from seed collected from Development Site.</li> <li>3. Procure seedlings of local plant species from appropriate, certified dieback-free nurseries (as advised by DEC [2003]) if insufficient seedlings obtained from Development Site seed.</li> <li>4. Ensure any seedlings brought to site are grown at a dieback-free certified nursery.</li> <li>5. Protect seedlings with tree guards.</li> <li>6. Ensure 75% of plants used in revegetation are suitable as foraging, breeding or roosting habitat for Carnaby's black-cockatoo (Appendix 3) and appropriate for mapped vegetation type of rehabilitation site.</li> <li>7. Procure seedlings to conduct top-up planting in any areas not meeting 80% survival rates, as determined by monitoring.</li> </ol>	In Progress	See Section 5.6 Revegetation

Parameter	Action	Status	Comment
Fire	<ol style="list-style-type: none"> <li>1. All firebreaks within the wetland to be maintained to 3 m in width (Site 1 only).</li> <li>2. All (non-wetland) firebreaks should be maintained to 4 m wide and have a height clearance of 4m with pass and turn around points (Site 2 only).</li> <li>3. Any shelters or rest areas should be built giving consideration to prevalent wind and fire behaviour from materials that are fire resistant, and located in low fuel zones (Site 2 only).</li> <li>4. the tracks that border the precinct and the main east-west track should be maintained at a standard that allows fire vehicles access and to act as fire breaks (Site 2 only).</li> </ol>	In Progress	See Section 5.1 Fire Management
Contingency actions	Implement contingency actions to address site environmental issues as per triggers described in EOMP Table 12.	In Progress	Remedial actions implemented as required. Details included within Section 5.

## 5. Implementation of Environmental Offsets Management Plan

### 5.1 Fire management

An extensive fire impacted the majority of Dixon Road Conservation Precinct (DRCP) during February 2022. The fire is believed to have been arson with an ignition point in the east of the reserve. A map of the fire scar is included in the report in Appendix 1. The revegetation site in the northwest of the reserve was not significantly impacted. A small number of plants were lost on the eastern side, but most of the area remained unaffected.

All firebreaks and emergency access points continue to be maintained at the offset sites to the City of Rockingham 2021/2022 Fire Control Notice specifications. Firebreaks are sprayed for weeds and pruned of vegetation as necessary as part of ongoing scheduled maintenance for each reserve.

### 5.2 Weed control

Regular chemical and manual weed control has continued this reporting period at both offset sites. Activities undertaken are detailed in Table 4.

Weed regrowth following the fire at DRCP detailed in Section 5.1 will be spot sprayed to limit reestablishment. Quotes are being sought to treat the weeds across the entirety of the fire scar area. Timing is projected to be August 2022 for the first treatment, with a follow up in late spring 2022.

**Table 4 – weed control at offset sites**

Activity	Timing	Site
Spraying firebreaks with glyphosate and metsulfuron-methyl	August 2021	DRCP, TPW
Glyphosate spot spray of revegetation site	Sep 2021	DRCP
Spraying firebreaks with glyphosate and metsulfuron-methyl	November 2021	DRCP, TPW
Hand weeding of <i>Gomphocarpus fruticosus</i> in dampland in north east of reserve	January 2021	DRCP
Glyphosate spot spraying throughout revegetation site and greater reserve area	6-weekly maintenance visits	TPW
Glyphosate spot spray of revegetation site	June 2022	DRCP
Spraying firebreaks with glyphosate and metsulfuron-methyl	June 2022	DRCP, TPW

### 5.3 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. Maintenance vehicle remain on designated tracks at all times

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.

### 5.4 Feral animals

The City's annual feral animal control program has continued during the 2021/2022 financial year. Appropriately qualified and trained pest animal control contractors were engaged to target rabbits, foxes, and feral cats.

No signs of feral activity was noted at Trenant Park Wetland (TPW). In December 2021 one

juvenile female fox was captured and removed from DRCP. No foxes or cats were captured during the control program at DRCP in June 2022 likely due to lack of vegetation cover after the fire.

Low rabbit activity has been noted in previous years so control during programs focused on foxes and cats. Rabbit Hemorrhagic Disease Virus is released biennially and scheduled for release again in autumn 2023.

Agricultural fencing is recommended in the EOMP for the offset sites. Initial revegetation planting at the reserves used individual tree guards as an alternative to protect the plants against predation. Given the infill nature of the planting, installing exclusion fencing around the revegetation site can be difficult.

Due to the low number of rabbits at DRCP, no presence of rabbits at TPW, revegetation in 2021 was undertaken without tree guards. Plants have been monitored and there have been no signs of predation. Furthermore, plants have grown well without the restriction of tree guards and there is no risk of collapsing guards suffocating plants between maintenance visits.

### **5.5 Access**

The offset sites are regularly monitored during routine maintenance activities to ensure integrity of fences and access gates. Additional visual inspections of perimeter fencing is carried out during six-monthly site audits. 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.

A section of fencing at DRCP was damaged during the February fire. Contractors replaced 20 burnt pine posts and rejoined cut wires.

### **5.6 Revegetation**

Ongoing maintenance of planted areas has continued at both offset sites through 2021/2022. Additional infill planting requirements that were identified and reported in the 2021 annual report are scheduled for July 2022. To date a total of 17,458 plants have been installed at DRCP, and 2353 plants at TPW.

### **5.7 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. Monitoring parameters are as per the EOMP and include:

- recording native and weed species at each quadrat
- recording density of native plants
- recording vegetation condition
- recording any areas of poor/declined vegetation health or failure of vegetation to establish or regenerate
- opportunistically recording any additional species revegetating outside of quadrats
- recording location of any Declared Plant infestations
- photopoint monitoring of quadrats to record levels of germination, change in weed cover and weed outbreaks.

The results of the quadrat surveys can be seen in Tables 5 and 6. The variation between spring 2020 and spring 2021 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 spring 2021, coverage of native species at DRCP was an average of 53%, up 13% from spring 2020. At TPW, native coverage in spring 2021 was 67%, up from the 58% coverage measured in spring 2020.

In reference to native plant density, the average at DRCP is at 0.24 plants/m<sup>2</sup> and at TPW is 0.31 plants/m<sup>2</sup>. Sparse coverage is largely due to requirement for planting lists to be comprised of 75% black cockatoo foraging, roosting and breeding habitat. To date these has meant most of the species list has been larger shrubs and trees. The focus for planting from winter 2022 will be to expand range of planting throughout DRCP. Larger black cockatoo suitable species will be installed amongst other areas of better condition bushland outside of the degraded northwest area that has been the focus for the previous seven planting seasons.

Photographs are taken during routine monitoring, which allows assessment of long term changes in site condition (Tables 7-12).

**Table 5: Monitoring quadrat species composition for offset sites (\*weed species)**

Quadrat No.	Species	Spring 2020	Spring 2021	Variation from Spring 2020 to Spring 2021
<b>DRCP 01</b>	Acacia rostellifera	0	1 plant	↑ 1 plant
<b>mE384462</b>	Agonis flexuosa	1 plant	1 plant	No change
<b>mN6427961</b>	Corymbia calophylla	2 plants	1 plant	↓ 1 plant
	Clematis linearifolia	0	2 plants	↑ 2 plants
	Dianella revoluta		1 plant	↑ 1 plant
	Dodonaea hacketiana	5 plants	4 plants	↓ 1 plant
	Eremophila glabra	2 plants	2 plants	No change
	Eucalyptus gomphocephala	1 plant	2 plants	↑ 1 plant
	Haka prostrata	2 plants	1 plant	↓ 1 plant
	Hemiandra pungens	1 plant	2 plants	↓ 1 plant
	Lomandra maritima	0	1 plant	↑ 1 plant
	Olearia axillaris	2 plants	2 plants	No change
	Phyllanthus calycinus	0	2 plants	↑ 2 plants
	Rhagodia baccata	1 plant	1 plant	No change
	*Crassula sp.		40%	↑ 40% coverage
	*Ehrharta longiflora	<1%	0	↓ 1% coverage
	*Euphorbia terracina	<1%	<1%	No change
	*Euphorbia sp. (<2mm in size)	40%	<5%	↓ 35% coverage
	*Sonchus oleraceus	0	<1%	↑ 1% coverage
	*Tribulus terrestris	<1%	0	↓ 1% coverage
<b>DRCP 02</b>	Acacia rostellifera	3 plants	2 plants	↓ 1 plant
	Dianella revoluta	0	6 plants	↑ 6 plants
<b>mE384484</b>	Eucalyptus gomphocephala	3 plants	3 plants	No change
<b>mN6427995</b>	Haka prostrata	2 plants	1 plant	↓ 1 plant
	Lomandra maritima	0	2 plants	↑ 2 plants
	Phyllanthus calycinus	0	1 plant	↑ 1 plant
	*Avena barbata	<1%	<1%	No change
	*Euphorbia terracina	0	<1%	↑ 1% coverage
	*Sonchus oleraceus	0	<1%	↑ 1% coverage
	*Tribulus terrestris	0	<1%	↑ 1% coverage

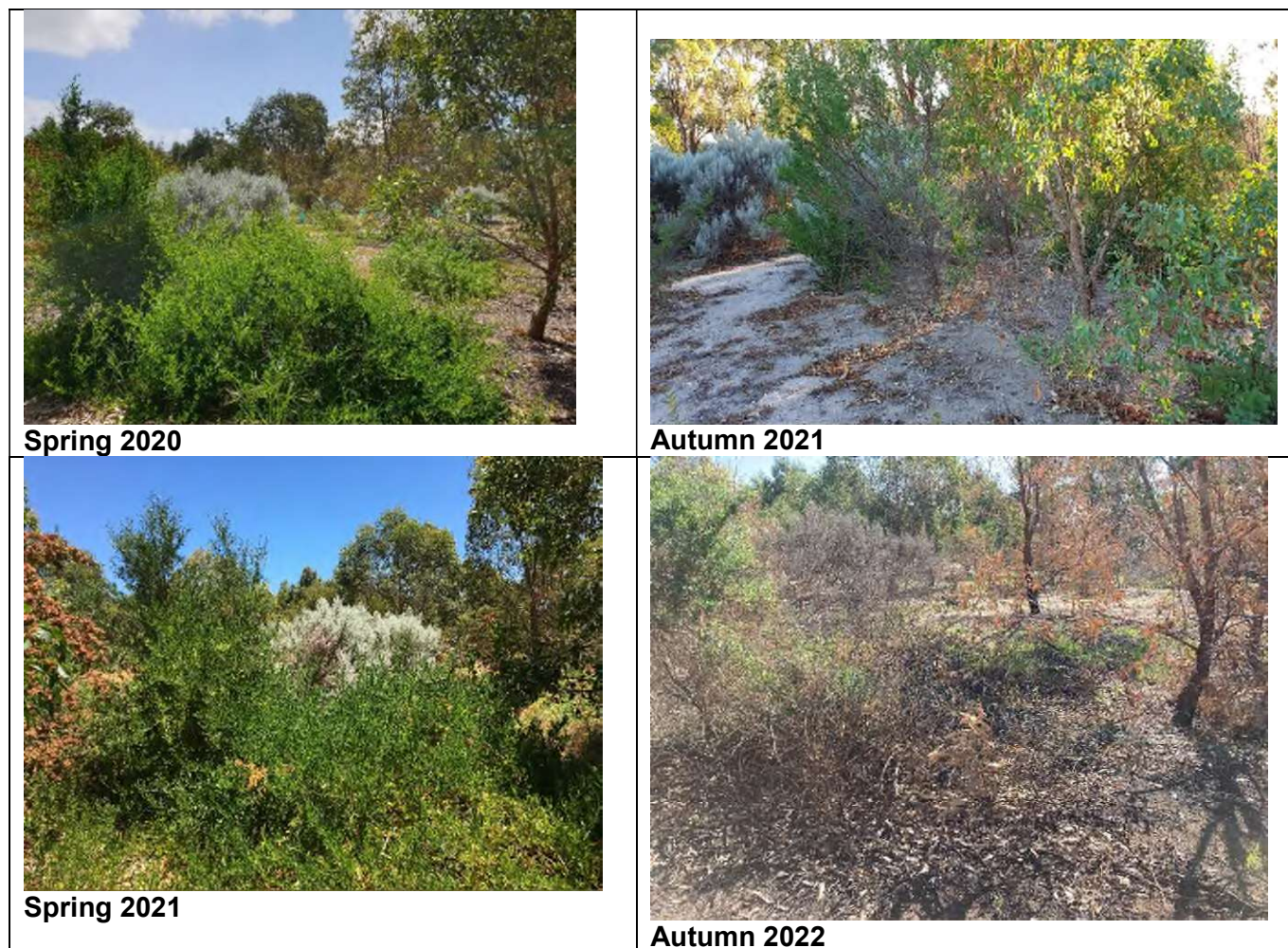
Quadrat No.	Species	Spring 2020	Spring 2021	Variation from Spring 2020 to Spring 2021
<b>DRCP 03</b>	Acacia pulchella	1 plant	5 plants	↑ 4 plants
<b>mE384464</b>	Acacia rostellifera	15 plants	7 plants	↓ 8 plants
<b>mN6428080</b>	Acanthocarpus preissii	0	2 plants	↑ 2 plants
	Banksia sessilis	2 plants	2 plants	No change
	Conostylis aculeata	1 plant	0	↓ 1 plant
	Eucalyptus gomphocephala	0	1 plant	↑ 1 plant
	Haka prostrata	3 plants	3 plants	No change
	Hardenbergia comptoniana	3 plants	2 plants	↓ 1 plant
	Hemiandra pungens	2 plants	1 plant	↓ 1 plant
	Olearia axillaris	5 plants	5 plants	No change
	Rhagodia baccata	5 plants	5 plants	No change
	Templetonia retusa	1 plant	1 plant	No change
	*Crassula sp.		<5%	↑ 5% coverage
	*Euphorbia terracina	<2%	<1%	↓ <1% coverage
	*Rumex crispus	0	<1%	↑ 1% coverage
	*Trachyandra divaricata	<1%	0	↓ <1% coverage
	*Tribulus terrestris	<1%	0	↓ <1% coverage
<b>DRCP quadrat average</b>				
	<b>Average natives per m2</b>	<b>0.21</b>	<b>0.24</b>	<b>↑ 0.03 plants</b>
	<b>Average weeds coverage</b>	<b>16%</b>	<b>19.3%</b>	<b>↑ 3.3% coverage</b>
<b>TPW 01</b>	Acacia pulchella	2 plants	1 plant	↓ 1 plant
<b>mE384327</b>	Acacia saligna	1 plant	2 plants	↑ 1 plant
<b>mN6411816</b>	Austrostipa sp.	<1%	2%	↑ 1% coverage
	Baumea juncea	<1%	2%	↑ 1% coverage
	Clematis pubescens	1 plant	0	↓ 1 plant
	Eucalyptus gomphocephala	3 plants	3 plants	No change
	Juncus kraussii	<1%	1%	No change
	Lepidosperma longitudinale	<20%	20%	No change
	Rhagodia baccata	10 plants	10 plants	No change
	Spyridium globulosum	3 plants	7 plants	↑ 4 plants
	Tricoryne tenella	1 plant	2 plants	↑ 1 plant
	*Avena fatua	<5%	<1%	↓ 4% coverage
	*Briza maxima	1%	1%	No change
	*Ehrharta calycina	<10%	3%	↓ 7% coverage
	*Eragrosis curvula	<10%	0	↓ 10% coverage
	*Euphorbia terracina	<1%	1%	No change
	*Fumaria capreolata	<10%	10%	No change
	*Solanum nigrum	1 plant (1%)	5 plants (5%)	↑ 4% coverage
	*Sonchus tenerrimus	1 plant (<1%)	5 plants (<2%)	↑ 1% coverage
	*Vici asp.	<1%	0	↓ 1% coverage
<b>TPW 02</b>	Acacia pulchella	2 plants	2 plants	No change
<b>mE384402</b>	Acacia saligna	1 plant	0	↓ 1 plant
<b>mN6412089</b>	Banksia littoralis	1 plant	0	↓ 1 plant
	Banksia sessilis	1 plant	1 plant	No change
	Corymbia calophylla	20 plants	20 plants	No change
	Eucalyptus gomphocephala	3 plants	3 plants	No change
	Ficinia nodosa	<5%	5%	No change
	Hakea prostrata	2 plants	2 plants	No change
	Hakea varia	1 plant	1 plant	No change

Quadrat No.	Species	Spring 2020	Spring 2021	Variation from Spring 2020 to Spring 2021
	Leucopogon parviflorus	1 plant	1 plant	No change
	Lobelia tenuior	0	1%	↑ 1% coverage
	Muehlenbeckia adpressa	<1%	1%	No change
	Rhagodia baccata	0	5 plants	↑ 5 plants
	Spyridium globulosum	0	3 plants	↑ 2 plants
	*Anemone sp.	0	30%	↑ 30% coverage
	*Arctotheca calendula	<1%	0	↓ 1% coverage
	*Ehrharta calycina	<1%	1%	No change
	*Euphorbia terracina	<1%	3%	↑ 2% coverage
	*Fumaria capreolata	<1%	1%	No change
	*Hypochoeris tadicata	<1%	1%	No change
	*Sonchus tenerrimus	0	1 plant (1%)	↑ 1% coverage
	*Veronica spp	<1%	1%	No change
<b>TPW 03</b>	Acacia saligna	3 plants	2 plants	↓ 1 plant
<b>mE384419</b>	Banksia grandis	2 plants	0	↓ 2 plants
<b>mN6412167</b>	Banksia littoralis	3 plants	0	↓ 3 plants
	Banksia menziesii	1 plant	2 plants	↑ 1 plant
	Banksia sessilis	2 plants	2 plants	No change
	Callitris preissii	4 plants	4 plants	No change
	Clematis pubescens	1 plant	0	↓ 1 plant
	Eucalyptus gomphocephala	7 plants	7 plants	No change
	Ficinia nodosa	<1%	1%	No change
	Haka prostrata	8 plants	8 plants	No change
	Hakea varia	1 plant	1 plants	No change
	Lepidosperma longitudinale	<1%	1%	No change
	Lobelia tenuior	0	1%	↑ 1% coverage
	Rhagodia bacata	3 plants	2 plants	↓ 1 plant
	Spyridium globulosum	1 plant	2 plants	↑ 1 plant
	*Anemone sp.	0	5%	↑ 5% coverage
	*Avena fatua	<1%	0	↓ 1% coverage
	*Briza maxima	20%	1%	↓ 19% coverage
	*Conyza spp	10%	0	↓ 10% coverage
	*Ehrharta calycina	<1%	0	↓ 1% coverage
	*Ehrharta longiflora	<1%	0	↓ 1% coverage
	*Fumaria capreolata	<1%	0	↓ 1% coverage
	*Poa annua	<50%	0	↓ 50% coverage
	*Trachyandra divaricata	1 plant (5%)	2 plants (<10%)	↑ 5% coverage
	*Veronica spp.	<10%	5%	↓ 5% coverage
<b>TPW quadrat average</b>				
	<b>Average natives per m2</b>	<b>0.30</b>	<b>0.31</b>	<b>↑0.01 plants</b>
	<b>Average weeds coverage</b>	<b>48.3%</b>	<b>27.3%</b>	<b>↓ 21% coverage</b>

**Table 6 – Vegetation condition in monitoring quadrats**

Quadrat No.	DRCP 01	DRCP 02	DRCP 03	TP 01	TP 02	TP 03
Density of native species (% cover)	80%	30%	50%	50%	70%	80%
Vegetation condition (vegetation condition rating scale, Keighery 1994)	Degraded	Degraded	Degraded	Good	Very good	Excellent
Any areas of poor/declined vegetation health or failure of vegetation to establish or regenerate	Dodonaea hacketiana dead x 1	Recent reveg planting winter 2021 several deaths	No	No	No	No
Opportunistic additional species revegetation outside of the quadrats?	Yes, A. rostellifera	Yes, A. rostellifera	Yes, A. rostellifera	Yes	Yes	No
Location of any declared plant infestation	None	None	None	None	None	None

**Table 7: Revegetation monitoring – Quadrat 1 Dixon Road Conservation Precinct**



**Table 8: Revegetation monitoring – Quadrat 2 Dixon Road Conservation Precinct**



**Spring 2020**



**Autumn 2021**



**Spring 2021**



**Autumn 2022**

**Table 9: Revegetation monitoring – Quadrat 3 Dixon Road Conservation Precinct**



**Spring 2020**



**Autumn 2021**



**Spring 2021**



**Autumn 2022**

**Table 10: Revegetation monitoring – Quadrat 1 Trenant Park Wetland**



**Spring 2020**



**Autumn 2021**



**Spring 2021**



**Autumn 2022**

**Table 11: Revegetation monitoring – Quadrat 2 Trenant Park Wetland**



**Spring 2020**



**Autumn 2021**



**Spring 2021**



**Autumn 2022**

**Table 12: Revegetation monitoring – Quadrat 3 Trenant Park Wetland**



**Spring 2020**



**Autumn 2021**



**Spring 2021**



**Autumn 2022**



  
 Civic Boulevard  
 Rockingham 6967  
 Western Australia  
 Tel 9528 0333  
 Fax 9592 1705



Original Size  
**A4**

Printed by : **Nathan Leslie**  
 Date : **29/06/2022**  
 Scale : **1:7828**  
 Drawn by : **Intramaps**

**Appendix 1**  
**February 2022 fire scar map**  
**Dixon Road Conservation**  
**Precinct**

This document is compiled from various sources and whilst the City of Rockingham has made every effort to ensure the accuracy and currency of the information, Council accepts no responsibility or liability for any errors or omissions.