

Annual Compliance Report 2019

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

*All actions required by the City have been completed. See page 10 of this report for details.

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

No further update since 2018 annual report.

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

No further update since 2018 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).

Since the 2018 annual report, work has continued in these reserves in accordance with the EOMP and the site specific DRCP Management Plan. In April 2018, the City finalised the Wetland Management Plan which encompasses TPW. The Wetland Management Plan 2018 includes recommendations for management actions at TPW.

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.

Item	Management objective	Target	Performance indicators
1	To protect offset sites in conservation tenure	Offset sites secured in conservation covenants	Conservation covenant finalised
2	Damage to native vegetation and revegetation to be prevented	Fencing adequate and well maintained	Visual observations indicate no damage to fencing
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
4	To prevent the introduction and spread of dieback	No introduction of dieback	Monitoring and visual observations indicate dieback absent
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
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
7	To prevent fire incidents	No unauthorised fires	Absence of fire

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.

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 and treatment of priority species such as Narrow-Leaf Cotton Bush (*Gomphocarpus fruticosus*), Brazilian Pepper Tree (*Schinus terebinthifolius*), Olive (*Olea europaea subsp. europaea*), Edible Fig (*Ficus carica*), Rose pelargonium (*Pelargonium capitatum*), Geraldton Carnation Weed (*Euphorbia terracina*), Bridal Creeper (*Asparagus asparagoides*) and various species from the Poaceae genus. New occurrences of any weed species identified have been targeted for removal.

The biocontrol agent, Bridal Creeper rust fungus (*Puccinia myrsiphylli*), is present at DRCP. During autumn Bridal Creeper plant material is harvested within the site and used to inoculate areas where the occurrence of the fungus is not apparent.

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. Since 2014, a total of 2878 plants have been installed at TPW and 6918 at DRCP.

Maintenance of existing revegetation areas was a focus for the last reporting period to ensure good success. Ongoing maintenance of planted areas will continue at both sites through 2019/2020. Additional revegetation will also be undertaken as required at DRCP to infill existing revegetation and achieve the desired 80% minimum survival rate and improve degraded areas. 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.

Dieback

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 monitor the reserves for evidence of new dieback infestations.

Feral fauna

The City's annual feral animal control program has continued during the 2018/2019 financial year in accordance with the EOMP. Targets included the European rabbit (*Oryctolagus cuniculus*), foxes (*Vulpes vulpes*), and feral cats (*Felis catus*). Methodology was tailored for each site and was dependent upon evidence of feral and native fauna species.

Rabbits were only noted at DRCP and not TPW. Laying of pindone-treated oats was limited at DRCP to areas where no signs of Quenda (*Isodon fusciventer*) were evident. The Rabbit Haemorrhagic Disease Virus (RHDV1) was released in spring 2018 throughout various areas of City of Rockingham to aid in the reduction of European rabbit numbers.

The City engaged the same feral animal control contractors for the 2018/2019 feral animal control program as it did for 2017/2018. The most current program removed one fox (a 4.4kg lactating female estimated 5-6 cubs) from DRCP which is comparable to the one removed from the reserve during the preceding financial year.

Fire management

All firebreaks and emergency access points continue to be maintained to the City of Rockingham 2018/2019 Fire Control Notice specifications. Firebreaks are sprayed for weeds and pruned of vegetation as necessary as part of ongoing scheduled maintenance for each reserve.

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 can be seen below in Table 1. All quadrats at the time of assessment in May 2019 were predominantly weed free, providing the planted tubestock with a higher chance of success. Photographs are also taken during this monitoring, which will allow the City to assess long term changes in site condition (Tables 2-7).

Environmental assessments were undertaken at both reserves as part of the preparation of the City of Rockingham Bushland Reserves Management Plan and Wetland Management Plan which encompass DRCP and TPW, respectively. The vegetation condition assessed at each site can be seen in Attachments 1 and 2.

Substantial revegetation and weed control has been undertaken in TPW that has greatly improved the vegetation condition of the reserve. The overall assessment of TPW included in the EOMP 2013 ranged from Completely Degraded to Very Good to Excellent. The vegetation condition across TPW assessed by Biota Environmental Consultants in 2017 was classed as Very Good. Revegetation success at TPW is high. Existing sedges, herbs and shrubs along the perimeter of the wetland have provided a good understorey for the planting of habitat species for black cockatoos.

DRCP had areas recorded by 360 Environmental Consultants in 2018 ranging from Very Good to Degraded with some areas of Completely Degraded. Large portions of the Completely Degraded areas include the

“parkland cleared” hazard separation zone behind the Darile St residential blocks as well as the north-west zone that has been subject to revegetation as part of the EOMP. The progressive rehabilitation of the north-west area has been predominantly undertaken with flora species suitable for black cockatoo foraging and roosting habitat. While the larger shrubs and trees are healthy, few understorey shrubs and herbs have been planted at this stage to maintain focus on planting of black cockatoo foraging and roosting habitat species. Once density and survival rates for these species has been achieved, infill planting of lower-growing species can take place to assist in further developing the overall vegetation condition.

There is evidence of natural recruitment of *Acacia rostellifera* at DRCP and *Acacia saligna* at TPW. *A. rostellifera* is in abundance along the eastern perimeter of the north-west revegetation site at DRCP

The recent environmental assessments, and subsequent City of Rockingham Wetland Management Plan and upcoming Bushland Reserves Management Plan, will be used to inform effective localised treatment of exotic species.

Table 1: Quadrat species composition

Quadrat No.	Species	Autumn 2018	Autumn 2019
DRCP 01	<i>Acacia rostellifera</i>	-	2 plants
mE384462	<i>Agonis flexuosa</i>	1 plant	1 plant
mN6427961	<i>Corymbia calophylla</i>	1 plant	-
	<i>Dodonaea hacketiana</i>	3 plants	4 plants
	<i>Eremophila glabra</i>	3 plants	3 plants
	<i>Eucalyptus gomphocephala</i>	5 plants	4 plants
	<i>Hakea prostrata</i>	2 plants	2 plants
	<i>Hemiandra pungens</i>	1 plant	1 plants
	<i>Lomandra maritima</i>	1 plant	-
	<i>Olearia axillaris</i>	2 plants	2 plants
	<i>Rhagodia baccata</i>	1 plant	1 plants
	<i>Xanthorrhoea preissii</i>	1 plant	1 plants
	* <i>Cynodon dactylon</i>	-	-
	* <i>Euphorbia terracina</i>	2%	-
	* <i>Medicago polymorpha</i>	1%	-
	* <i>Poa annua</i>	5%	-
	* <i>Sonchus oleraceus</i>	<1%	-
DRCP 02	<i>Acacia rostellifera</i>	1 plant	3 plants
mE384484	<i>Corymbia calophylla</i>	1 plant	-
mN6427995	<i>Eucalyptus gomphocephala</i>	4 plants	3 plants
	<i>Hakea prostrata</i>	3 plants	2 plants
	* <i>Cynodon dactylon</i>	-	-
	* <i>Euphorbia terracina</i>	20%	-
	* <i>Oxalis pes-caprae</i>	<1%	-
	* <i>Poa annua</i>	90%	-
DRCP 03	<i>Acanthocarpus preissii</i>	-	1 plants
mE384464	<i>Banksia sessilis</i>	3 plants	4 plants
mN6428080	<i>Hakea prostrata</i>	3 units	2 plants
	<i>Hardenbergia comptoniana</i>	2 plants	2 plants
	<i>Hemiandra pungens</i>	2 plants	2 plants
	<i>Olearia axillaris</i>	2 plants	2 plants
	<i>Phyllanthus calycinus</i>	1 plant	1 plants
	<i>Rhagodia baccata</i>	1 plant	1 plants
	<i>Templetonia retusa</i>	-	1 plants
	* <i>Asparagus asparagoides</i>	-	-
	* <i>Cynodon dactylon</i>	-	-
	* <i>Eragrostis curvula</i>	-	-
	* <i>Euphorbia terracina</i>	3 plants	-
	* <i>Poa annua</i>	<1%	-
	* <i>Trachyandra divaricata</i>	6 plants	2 plants
TP 01	<i>Acacia saligna</i>	2 plants	2 plants

Quadrat No.	Species	Autumn 2018	Autumn 2019
mE384327	<i>Eucalyptus gomphocephala</i>	3 plants	3 plants
mN6411816	<i>Lepidosperma longitudinale</i>	20%	25%
	<i>Spyridium globulosum</i>	1 plant	1 plants
	* <i>Euphorbia terracina</i>	2 plants	-
	* <i>Fumaria capreolata</i>	25%	-
	* <i>Poa annua</i>	5%	10%
	* <i>Solanum nigrum</i>	2 plants	-
	* <i>Stenotaphrum secundatum</i>	2%	5%
TP 02	<i>Acacia pulchella</i>	2 plants	5 plants
mE384402	<i>Banksia littoralis</i>	3 plants	2 plants
mN6412089	<i>Banksia sessilis</i>	-	1 plants
	<i>Corymbia calophylla</i>	25%	20 plants
	<i>Eucalyptus gomphocephala</i>	4 plants	4 plants
	<i>Ficinia nodosa</i>	5%	6%
	<i>Hakea prostrata</i>	4 plants	2 plants
	<i>Hakea varia</i>	2 plants	2 plants
	<i>Lepidosperma longitudinale</i>	<1%	-
	<i>Leucopogon parviflorus</i>	1 plants	1 plants
	* <i>Arctotheca calendula</i>	<1%	-
	* <i>Ehrharta longiflora</i>	-	-
	* <i>Fumaria capreolata</i>	<1%	-
	* <i>Poa annua</i>	1%	-
	* <i>Scabiosa atropurpurea</i>	-	-
	* <i>Trachyandra divaricta</i>	-	-
TP 03	<i>Acacia pulchella</i>	2 plants	2 plants
mE384419	<i>Acacia saligna</i>	-	2 plants
mN6412167	<i>Banksia grandis</i>	2 plants	4 plants
	<i>Banksia littoralis</i>	4 plants	5 plants
	<i>Banksia sessilis</i>	6 plants	6 plants
	<i>Callitris preissii</i>	4 plants	6 plants
	<i>Eucalyptus gomphocephala</i>	7 plants	7 plants
	<i>Ficinia nodosa</i>	<1%	<1%
	<i>Hakea prostrata</i>	8 plants	8 plants
	<i>Hakea varia</i>	2 plants	2 plants
	<i>Lepidosperma longitudinale</i>	<1%	<2%
	<i>Rhagodia bacata</i>	-	1 plants
	* <i>Euphorbia terracina</i>	-	-
	* <i>Fumaria capreolata</i>	1%	-
	* <i>Poa annua</i>	<1%	<1%
	* <i>Solanum nigrum</i>	-	<1%
	* <i>Trachyandra divaricata</i>	2 plants	-

Table 2: Revegetation monitoring – Quadrat 1 Dixon Road Conservation Precinct



Spring 2017



Autumn 2018



Spring 2018



Autumn 2019

Table 3: Revegetation monitoring – Quadrat 2 Dixon Road Conservation Precinct



Spring 2017



Autumn 2018



Spring 2018



Autumn 2019

Table 4: Revegetation monitoring – Quadrat 3 Dixon Road Conservation Precinct



Spring 2017



Autumn 2018



Spring 2018



Autumn 2019

Table 5: Revegetation monitoring – Quadrat 1 Trenant Park Wetland



Spring 2017



Autumn 2018



Spring 2018



Autumn 2019

Table 6: Revegetation monitoring – Quadrat 2 Trenant Park Wetland



Spring 2017



Autumn 2018



Spring 2018



Autumn 2019

Table 7: Revegetation monitoring – Quadrat 3 Trenant Park Wetland



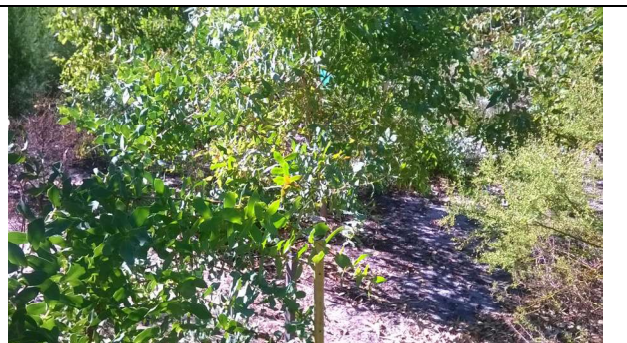
Spring 2017



Autumn 2018



Spring 2018



Autumn 2019

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 2018 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. Please see the link to these plans below:

<http://www.rockingham.wa.gov.au/Our-city/Major-projects-and-developments/Gateway-to-Rockingham>

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

No further update since 2018 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 sixth 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 2018 annual report.

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

No further update since 2018 annual report.

3.13. Condition 12 - If works have not commenced after 5 years then further approval must be sought


No further update since 2018 annual report.




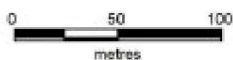


 Wetland reserve

Vegetation Condition

 Completely degraded - 0.83ha

 Very good - 8.64ha



**CoR Wetland Assessment
Trenant Park Gardens
Vegetation Condition**

Biota 
Environmental
Sciences 

Author: P. Braaschoof

Drawn: H. Smith

Job No.: 1330

Date: 23 Feb 2018

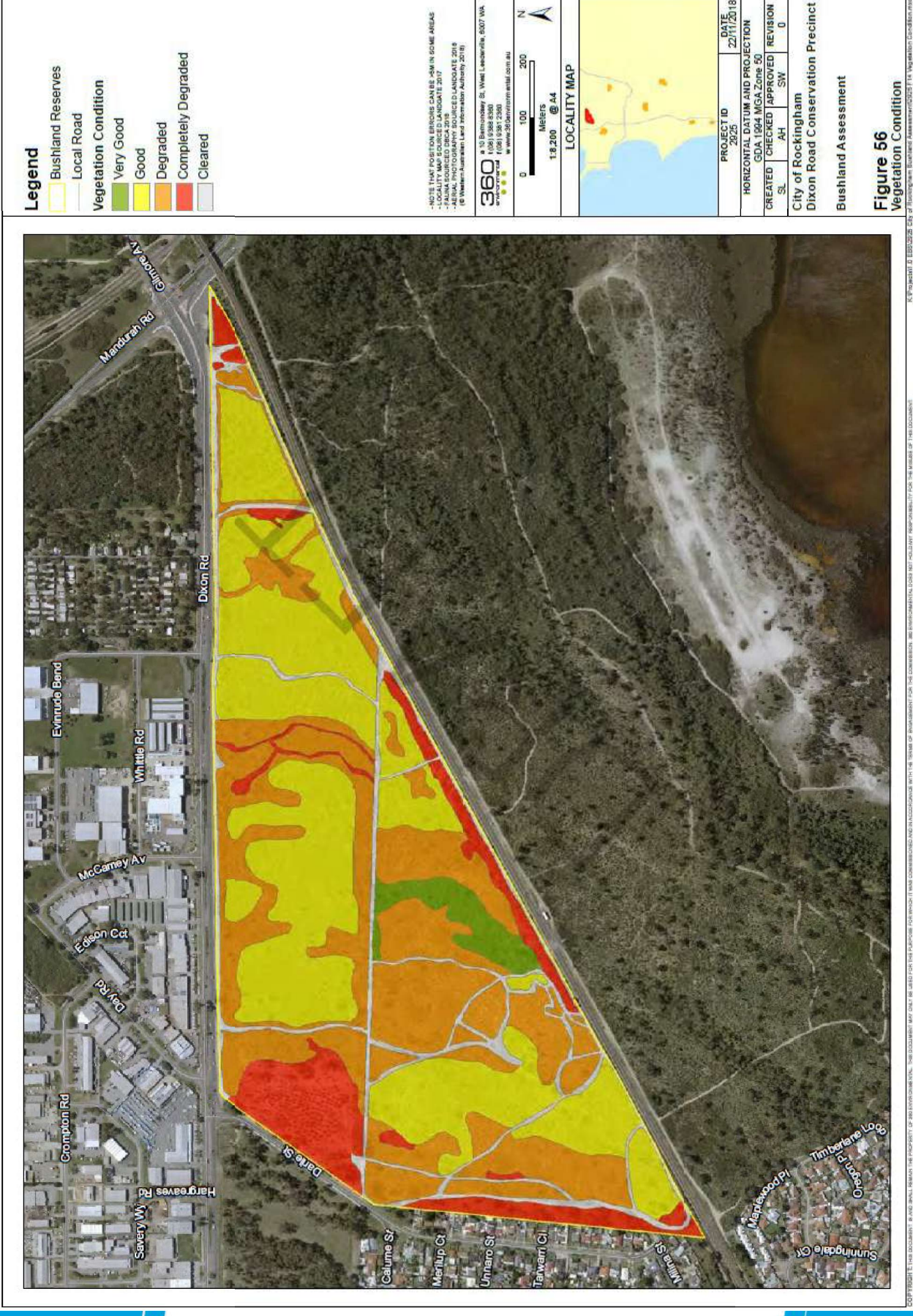
Revised:

Projection: MGA 250 (GDA#4)

Scale: 1:2,500



Attachment 2 - Dixon Road Conservation Precinct (Vegetation Condition 2018)



City of Rockingham, 100 South Street, Rockingham, WA 6116. Phone: (08) 9447 1000. Fax: (08) 9447 1001. Email: info@rockingham.wa.gov.au

