

# Application for an Authority to Take Threatened fauna – Prescribed burn & associated activities

<b>Submit completed forms to:</b>  Department of Biodiversity, Conservation and Attractions <ul style="list-style-type: none"> <li>email to: <a href="mailto:sacl@dbca.wa.gov.au">sacl@dbca.wa.gov.au</a></li> </ul>	<b>Further information:</b>  Species and Communities Program Email: <a href="mailto:sacl@dbca.wa.gov.au">sacl@dbca.wa.gov.au</a> Phone: (08) 9219 9523
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## NOTE TO APPLICANTS:

- Applications must be submitted at least 20 working days prior to the proposed commencement of the activity.
- ALL sections must be completed.
- If the application is determined to be incomplete or to have insufficient detail to assess the impact of the proposed take or disturbance activity on the threatened fauna species, then it may be returned to the applicant for additional information or the assessor may contact the applicant directly by phone or email to request further detail. The 20 working day assessment process begins once the complete application is received.

## 1. Applicant details

<b>1.1 Name and job title</b> <i>(person who the authority will be granted to)</i>	
Eryn Jackson – Senior Environmental Management Officer Craig Perry – Project Officer, Bushfire Mitigation	
<b>1.2 Company, institution or organisation name and address</b> <i>(if DBCA include Region, District, Branch or Program)</i>	
City of Mandurah 3 Peel St, Mandurah WA 6210	
<b>1.3 Phone number</b>	95503812
<b>1.4 Email</b>	Eryn.jackson@mandurah.wa.gov.au
<b>1.5 Secondary contact</b> <i>(if applicable)</i> <i>(e.g. person managing application on behalf of the applicant)</i>	Craig Perry - Project Officer, Bushfire Mitigation
<b>1.6 Additional persons</b> <i>Will other people be involved in the proposed activity?</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes, provide details:</i> Myra Giardini, Coordinator, Emergency Management

<b>Applicants signature</b>		<b>Date signed</b>	17/2/20
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**Activity details** (provide supporting material where necessary and refer to it in the appropriate sections)**2.1 Activity type** (select all applicable)Take ☒ Disturb ☒ Release ☐ Possess (temporary or permanent) ☐ Feed (includes consumable lure/bait) ☐**2.2 General activity purpose** (select main purpose):Survey ☐ Monitoring ☐ Research ☐ Relocation ☐ Prescribed burn ☒ Vegetation clearing ☒Mining and/or construction involving excavations ☐ Other ☐ (if other, state purpose):**2.3 Is the proposed activity associated with an approval or exemption under other legislation?**

(i.e. vegetation clearing permit, mining or subdivision approval under the EP Act, an exemption under the EP Act, or referral under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act))

Yes ☒No ☐**If yes, answer the following:**a) Approval or exemption type: Approved activity under the *Bush Fires Act 1954***2.4 Date(s) or date range or period of the proposed activity:**

(e.g. field sessions for surveys, proposed burn season)

Mechanical works to be completed prior to 30 June 2020. Prescribed burns Winter / Spring 2020 weather dependent

**2.5 Location of proposed activity:**

(i.e. address, land parcel reference, lease number)

Reserve 860 (Warrangup Spring Reserve) (ID 3527)

Reserves 47037 and 31019 (Tindale Reserve) (ID 3555)

Reserve 2851 (Caddadup Reserve) (ID 3722)

Reserves 52821 and 33139 (Tims Thicket Reserve) (ID 3723 and 3725)

Reserves 52821, 33139 and 24198 (Tims Thicket Reserve) (ID 3724)

Reserves 48028 and 2851 (Caddadup Reserve) (ID 3727)

Reserves 48028 and 2851 (Caddadup Reserve) (ID 3779)

Reserve 2851 (Caddadup Reserve) (ID 3728)

Reserve 34867 (ID 3756)

Reserve 42544 (ID 3758)

Mount John Road Lots (ID 3760)

Reserve 860 (Warrangup Spring Reserve) (ID 3761)

Reserve 44653 (ID 3763)

Reserve 50664 (ID 3766)

Reserve 31263 (ID 3785)

Reserve 2990 & adjoining lots (Island Point) (ID 3787)

Reserve 35025 (ID 3788)

Coordinates

Attach map(s) and/or shapefile

Map ☒Shapefile ☐**2. Details of prescribed burn activities, threatened Fauna occurrence and potential impact**

<b>3.1 Is the activity targeting threatened fauna?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Prescribed burn and associated activities
a) If no, list threatened fauna species that will be or may be <b>taken</b> during the proposed activities (Note: section a can contain a combined list of a and b if you are unsure whether fauna will be taken and/or disturbed).	
Carnaby's Black Cockatoo, Western Ringtail Possum, Forest Red-tailed Black Cockatoo, Brush-tailed Phascogale, Quenda, Rakali, Perth Slider, Black Striped Snake, Rainbow Bee-eater	
b) If no, list threatened fauna species that will be or may be <b>disturbed</b> by or during the proposed activities	
As above	

<b>3.2 Provide details of the activities (applicants must complete the accompanying spreadsheet when the application relates to multiple burns in a program Framework for Assessment of Prescribed Burning Activities on Threatened Fauna_EXTERNAL):</b>	
a) Burn plan or similar document (attach):	Yes <input type="checkbox"/> No <input type="checkbox"/> List attached files:
b) Prescribed burn reference number(s):	
c) Purpose of and need for proposed burn activities:	Reduce likelihood and intensity of a wildfire. Protect property and environmental assets.
d) Consequence of not carrying out the operation:	In the event of a wildfire, impacts would be expected to be more intense resulting in greater loss of species and habitat as well as an increase in damage to property
e) Fauna habitat types within and adjacent to the proposed burn area etc.	Black Cockatoos - Foraging, roosting WRP – general, foraging and refuges Quenda, Perth Slider, Black striped snake – general Phascogale – general, refuges
f) Nature of the proposed burn activities that will or may result in taking or disturbing threatened fauna: (i.e. size, methodology, frequency, intensity etc.)	Once off mechanical works to remove vegetation to widen firebreaks – several sites Low intensity prescribed burns at multiple sites – cool running burns and cool weather grass tree burns. Once off treatments

<b>3.3 How was it determined what threatened fauna species are in or are likely to be in the area of the proposed activity?</b>
WALGA Planning tool threatened species mapping, Officer knowledge of reserves.

<b>3.4 Identify the nature of the threatened fauna occurrence? (e.g. breeding habitat, resident/transient, known important population)</b>
Mostly foraging habitat for all species to be impacted. Potentially breeding habitat and refuge (dreys/hollows) for WRP. Black cockatoos are transient through all areas to be impacted.

<b>3.5 What is the expected short-term impact to the local occurrence of the threatened species as a consequence of implementing the activity as planned?</b>
Activities may result in temporary loss of feeding habitat, burns have been designed to retain contiguous habitat to provide ongoing habitat. Mechanical works are limited to edges of reserves leaving internal habitat intact. Works along road reserves that are within WRP habitat will be limited to removing ground fuels and lower material only

leaving canopy connectivity intact. Actions in place to prevent loss of hollows or dreys however this may unavoidable in certain circumstances – checks of these habitat types by a fauna expert are to occur prior to mechanical works / prescribed burning.

**3.6 What is the expected long-term impact to the local occurrence of the threatened species as a consequence of implementing the activity as planned? (i.e. what is the capacity for the occurrence to recover after the activity)**

Long term impacts of the activities are expected to be minimal as activities are low intensity and highly targeted. Post activity management actions including weed control and access management and monitoring.

**3.7 Provide a summary of the details of the management actions to minimize the impact on threatened species for before, during and after the proposed activities**

Checking of sites by fauna specialist for signs of active use by species, any trees with potentially active hollows are to be checked prior to removal if unable to be retained. Marking and mapping of habitat trees to prevent disturbance. Raking around habitat trees prior to burning. Creation of exclusion zones within reserves to be burned to retain quality habitat. Burns to be conducted at times when weather allows for cool, mild intensity burn.

During mechanical works areas where canopy provides connectivity across firebreaks are to be retained.

Activities to be undertaken outside of breeding times where possible

**3.8 Provide details of monitoring of threatened fauna before, during and after the proposed activities:**

Fauna specialist to survey burn sites prior to identify areas where WRP are active. CoM officers to be present during works to ensure the protocols are followed. Checking of any areas identified as providing habitat after burn to determine persistence of species

### 3. Attachments


**4.1 List all attachments provided with this application:**

Assessment framework for PB on Threatened Fauna spreadsheet.

Maps of works locations

### 4. Pre-assessment endorsement *(if required)*

**Supervisor or Environmental Officer *(if applicable)***

Name and Role	Eryn Jackson – Senior Environmental Management Officer		
Endorsement:	I have reviewed this application and associated prescribed burn plans <i>[add other plan titles if required]</i> and agree that the stated management actions will be applied to mitigate or reduce impacts to threatened fauna.		
Comments:			
Signed:		Date:	17/2/20

### Assessment *(office use only)*

Assessor name and title:	Dr Karlene Bain, Senior Conservation Zoologist
Application complete and adequate information provided for assessment:	Yes <input type="checkbox"/> No <input type="checkbox"/> If no, provide details:

All attachments listed in question 6 received with application:	Yes <input type="checkbox"/> No <input type="checkbox"/> If no, provide details:
Comments:	<p>In all cases the proposed burns are small (ranging in size from 0.5-1.2 ha) and are continuous with areas of vegetation that are not planned to be burnt.</p> <p>Western ringtail possums are most at risk from the planned activities, given the known occurrence of breeding, nesting and foraging habitat. Carnaby's Cockatoo and Forest Red-tailed Black Cockatoo are also known from within the area of planned disturbance, but all known records are feeding records. The closest breeding record is 4 km away. Mature <i>Eucalypt</i> trees containing hollows that are potentially suitable for breeding by these species may be present on site.</p> <p>The proponent has planned the following management actions to reduce impacts on western ringtail possums and cockatoos: pre-burn surveys for western ringtail possum, protection of habitat trees and dreys through marking of known trees, raking around these prior to burning and protection from machine damage; the timing of burning activities in early spring when the impact is likely to be lowest for the western ringtail possum, given expected lower fire intensities, availability of post-winter nutritional requirements and the expected rapid regrowth of vegetation following an early spring burn. Where a spring burn is not possible, the prescriptions will be amended to include unburnt patches and post-burn predator control. The proponent has also committed to creation of areas of habitat within two of the larger burn areas that will be excluded to provide post-burn refuge.</p> <p>Burning is planned to be as mild as possible, minimising scorch height, in an effort to maintain canopy connectivity and minimise hollow loss. Balgas are being targeted for ignition in linear portions of two of the proposed burns that adjoin private property. This is in an effort to reduce flame height and fuel loads adjoining the private property assets. Outside of these linear protection strips, balga skirts will be retained where possible. The proponent has also committed to post-burn spotlighting and camera surveys to confirm persistence of threatened species, post-burn assessment of known nesting/ habitat trees to ensure they have been protected, and fire-scar mapping to assess the burn mosaic achieved.</p> <p>For mechanical fuel reduction and firebreak construction activities, the proponent has committed to dieback hygiene management, identification and protection of known nesting and habitat trees for western ringtail possum and black cockatoos, protection of mature <i>Eucalypt</i> trees that may be important for cockatoos, aligning firebreaks such that they avoid mature trees and maintain canopy connectivity, retention of balgas where possible, and undertaking maintenance and construction work outside of cockatoo breeding periods.</p>
Endorsement:	
Purpose:	To take western ringtail possum (CR), Carnaby's Cockatoo (EN) and Forest Red-tailed Black Cockatoo (VU) for the purpose of fire mitigation within the City of Mandurah.
Conditions:	<p>Within 30 days of the end of the approval period the licensee must submit a report detailing:</p> <ul style="list-style-type: none"> <li>• Locality and extent of prescribed burns</li> <li>• Extent to which any management actions were achieved for the burn</li> <li>• Any other significant findings</li> </ul> <p>Threatened fauna sightings to be reported to <a href="mailto:fauna@dbca.wa.gov.au">fauna@dbca.wa.gov.au</a></p>

Signed:	<i>K. Byrne</i>	Date:	3/4/2020
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**Approval (office use only)**

Name and title of Minister's delegate:	Dr Margaret Byrne, Executive Director, Biodiversity and Conservation Science		
Approved Duration / Dates	From date signed by Minister's delegate, below, until 30 November 2020		
Comments:			
Signed:	<i>Margaret Byrne</i>	Date:	14/4/20

**Authorisation (office use only)**

Authorisation granted:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If no, date applicant advised:	
Authorisation reference number:	TFA 2020-0051	Date Authorisation sent to applicant:	14.04.2020
Additional authorised persons:			
File number:		Other (if applicable):	
Comments (if applicable):			

SECTION 1: Burn details							SECTION 2: Taxon known or likely to occur within or directly adjacent to proposed burns													SECTION 3: Management Actions and Monitoring																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Burn ID	Burn Name	Shire	Location	Area (ha)	Timing/	Purpose	Threatened Taxon													Pre-burn (indicate which species the action relates to)	During burn (indicate which species the action relates to)	Post-burn (indicate which species the action relates to)	Comments / Clarification																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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							Carnaby's Baudins black cockatoo EN		Western Ringtail Possum CR	F redtail blk cockatoo VU	migratory birds IA	Phascogale CD	Rakalli P4	Quenda P4	black striped snake P3	Perth Slider P3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															



3758	Mechanical works	Mandurah	Bouvard Estuary edge lots	0.438	Pre summer 2021	reduce ignition risk and fuel loads. Slashing, removed dead wood, reduce ladder fuels within 2m within 10m of verge		DX												Fauna specialists to survey for western ringtail possum presence. (b)	CoM to maintain canopy connectivity and minimise loss of diurnal refuges for the western ringtail possum (b). Retain skirts on some Balga trees to provide WRP habitat <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees to confirm that trees were protected as per plan	Much of this will be carried out manually - unlikely to result in a take.
3760	mechanical works	Mandurah	Mount John road lots	9.309	Pre summer 2021	Slashing mulching and pruning dead, dying vegetation on verges of Mount John road.	DX	DX	DX											CoM to assess and mark known and potential nesting/habitat trees.(a,b,c)	CoM to ensure any trees identified as nesting sites during the preparation process are protected from machine damage (a,b,c). <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees post-works to confirm that any work treatments were successful in preventing damage to trees.	Much of this will be carried out manually - unlikely to result in a take.
3761	Burn	Mandurah	Austin rise Bryde court Residences Dawesville	1.195	Autumn/ Spring	Undertake grass tree burn in cell-1, reduce skirt and ground fuel (up to 5m)	DX	TX	DX					DX						CoM to assess and mark known and potential nesting/habitat trees, and arrange pre-burn rake around (a,b,c). Fauna specialists to survey for western ringtail possum presence prior to burn. Preference for a winter or early spring burn (FMIN S8) with the objective of a mild intensity burn (b).	CoM to ensure any trees identified as nesting sites during the burn preparation process are protected from machine damage (a,b,c).Fire Brigade to utilise appropriate lighting patterns to ensure fire intensity is as mild as possible to achieve fuel reduction without spreading to canopy of other vegetation. Retain intact some balga trees due to their importance as western ringtail possum habitat and refuge. (b) <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees post-burn to confirm that any pre-burn treatments (such as raking around) were successful in preventing fire running up the tree.Fauna specialists to conduct post-burn spotlighting surveys for continued presence of western ringtail possums at known locations commencing within three months post-burn.	Foraging site for BC. Most likely a corridor for WRP connecting larger habitat patches rather than permanent habitat. No dreys have been found in this corridor - changed to take as precaution
3763	Mechanical works	Mandurah	Gumnut reserve Dawesville	0.797	Pre summer 2020	Manual reduction of ground fuel loads in the western portion of the public open space.	D3	D2	D3											CoM to assess and mark known and potential nesting/habitat trees.(a,b,c).	CoM to ensure any trees identified as nesting sites during the work preparation process are protected from machine damage (a,c). CoM to ensure no deliberate damage of balga trees due to their importance as western ringtail possum habitat and refuge(b). <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees post-works to confirm that any work treatments were successful in preventing damage to trees. CoM to continue any management activities to protect conservation values that were being carried out pre-burn eg. weed management, access control	Much of this will be carried out manually - unlikely to result in a take.
3764	Burn	Mandurah	Gumnut north residences	0.884	Autumn	Reduce ground fuel to no more than 5t/ha by low intensity controlled burn as per reserve management plan	D3	D2	D3											CoM to assess and mark known and potential nesting/habitat trees, and arrange pre-burn rake around.(a,b,c). CoM to consider creating long-term exclusion area within burn as refuge area for significant ringtail possum population. Fauna specialists to survey for western ringtail possum presence prior to burn. Preference for an early spring burn (FMIN S8) with the objective of a mild intensity burn (b).	CoM to ensure any trees identified as nesting sites during the burn preparation process are protected from machine damage ([a])). to utilise appropriate lighting patterns to ensure fire intensity is as mild as possible to create a mosaic of fire intensities and burnt/unburnt patches to reduce the loss of mature Eucalypt/Marri trees that may be important for cockatoo nesting/roosting(a).Fire Dept.] to minimise scorch height across the burn area in order to maintain canopy connectivity and minimise loss of diurnal refuges for the western ringtail possum. CoM to ensure no deliberate lighting of balga trees and that some are retained intact due to their importance as western ringtail possum habitat and refuge (b). <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees post-burn to confirm that any pre-burn treatments (such as raking around) were successful in preventing fire running up the tree.Fauna specialists to conduct post-burn spotlighting surveys for continued presence of western ringtail possums at known locations commencing within three months post-burn. CoM to continue any management activities to protect conservation values that were being carried out pre-burn eg. weed management, access control	1-2 days after rain early morning with no wind would result in a very low intensity fire that would burn slowly and only remove the top layer of leaf litter without extending into the canopy or producing embers.
3766	Burn	Mandurah	Gumnut north residences	0.347	Autumn/ Spring	reduce fine fuel loads by grass tree burn in conjunction with treatment #3764	D3	T2	D3											CoM to assess and mark known potential nesting/habitat trees, and arrange pre-burn rake around.(a,b,c,e). CoM to consider creating long-term exclusion area within burn as refuge area for significant ringtail possum population. Fauna specialists to survey for western ringtail possum presence prior to burn. Preference for an early spring burn (FMIN S8) with the objective of a mild intensity burn (b).	CoM to ensure any trees identified as nesting sites during the burn preparation process are protected from machine/fire damage (a,b,c). Fire brigade to utilise appropriate lighting patterns to ensure fire intensity is as mild as possible to create a mosaic of fire intensities and burnt/unburnt patches. Scorch height to be minimised across the burn area in order to maintain canopy connectivity and minimise loss of diurnal refuges for the western ringtail possum. CoM to ensure some balga trees are kept intact due to their importance as western ringtail possum habitat and refuge.	Assess known nesting/habitat trees post-burn to confirm that any pre-burn treatments (such as raking around) were successful in preventing fire running up the tree. Fauna specialists to conduct post-burn spotlighting surveys for continued presence of western ringtail possums at known locations commencing within three months post-burn. CoM to continue any management activities to protect conservation values that were being carried out pre-burn eg. weed management, access control	BC not known to nest in this reserve, roosting trees recorded ~1km away. Foraging by BC common.
3785	Mechanical works	Mandurah	Hazelmere residences Dawesville	0.034	Pre summer 2020	Increase separation distance, install 10m slashed buffer behind residence.	D3	DX	D3					DX						CoM to assess and mark known and potential nesting/habitat trees.(a,b,c). Fauna specialists to survey for western ringtail possum presence. Ensure that all maps and documentation show threatened species populations.	CoM to ensure any trees identified as nesting sites during the preparation process are protected from machine damage (a,b,c). Retain where possible mature Eucalypt/Marri trees that may be important for cockatoo nesting/roosting (a,c). Maintain canopy connectivity and minimise loss of diurnal refuges for the western ringtail possum (b). <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees post-works to confirm that any work treatments were successful in preventing damage to trees.	No threatened species have previously been recorded within this site although presence of WRP is highly likely. Much of this will be carried out manually - unlikely to result in a take.
3787	Mechanical works	Mandurah	Bouvard Herron Estuary edge lots	2.574	Pre summer 2021	slashing/ mulching, trim ladder fuels along the verge area either side of southern estuary road	D3	D3	D3											CoM to assess and mark known and potential nesting/habitat trees. (a,b,c). Fauna specialists to survey for western ringtail possum presence prior (b)	CoM to ensure any trees identified as nesting sites during the preparation process are protected from machine damage (a,b,c). Retain where possible mature Eucalypt/Marri trees that may be important for cockatoo nesting/roosting (a,c). Maintain canopy connectivity and minimise loss of diurnal refuges for the western ringtail possum (b) <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees.Fauna specialists to conduct spotlighting surveys for continued presence of western ringtail possums at known locations commencing within three months post-activity	Much of this will be carried out manually - unlikely to result in a take.
3788	Fire access road/tra	Mandurah	Bouvard Herron Estuary edge lots	0.400	Pre summer 2020	Increase separation distance to improve access between reserve and rear of residence(pioneer & colonial court). Trim ladder fuels and install limestone access to stabilise northern end. May require cross over to be installed onto Estuary road.	D3	D3	D3											CoM to assess and mark known and potential nesting/habitat trees (a,b,c). Fauna specialists to survey for western ringtail possum presence.(b).	CoM to ensure any trees identified as nesting sites during the preparation process are protected from machine damage (a,b,c). Retain where possible mature Eucalypt/Marri trees that may be important for cockatoo nesting/roosting (a,c). Maintain canopy connectivity and minimise loss of diurnal refuges for the western ringtail possum (b) <b>All vehicles entering site are to observe pathogen management procedures to prevent the spread of Dieback, marri canker and Honey fungus</b>	Assess known nesting/habitat trees.Fauna specialists to conduct spotlighting surveys for continued presence of western ringtail possums at known locations commencing within three months post-activity	Much of this will be carried out manually - unlikely to result in a take.