



## Supplementary Form C

- **Threatened species & Ecological Communities**
- **Migratory species**
- **Listed marine species**

**(use Form A for Cetaceans)**

*Use this supplementary form if you are applying for a permit to kill, injure, take, trade, keep or move a listed species or ecological community, a listed migratory species, or a listed marine species in a Commonwealth Area. You will also need to complete "The General Permit Application Form".*

*If you are proposing to take or send specimens out of Australia it is likely that you will also need an export permit. Import permits may also be necessary for taking specimens into an overseas country. For more information on imports and exports contact the Wildlife Trade Assessments Section on 02 6274 1900 or email [wps@awe.gov.au](mailto:wps@awe.gov.au).*

*Please note that it is a requirement under subsection 200(3) of the Environment Protection and Biodiversity Conservation Act 1999 that details of this application (which may include the applicant's name) be provided to persons or bodies registered with the Department of Agriculture, Water and the Environment under section 266A of the Act, and to whom notice of applications is to be given, for the purpose of inviting submissions from those persons or bodies regarding permit applications.*

**1** Under which section(s) of the EPBC Act are you applying for this permit?

It will help you complete your application if you know which list in the EPBC Act the affected species/ecological community appears on. Search the lists at: [www.environment.gov.au/cgi-bin/sprat/public/sprat.pl](http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl)

Please note some species appear on more than one list. For example, the Green Turtle *Chelonia mydas* is a listed threatened species, a listed migratory species, and a listed marine species.

**Select all that apply**

Section 201 — Listed threatened species and ecological communities

Section 216 — Listed migratory species

Section 258 — Listed marine species

**2** On the next page list details of species or ecological communities that will be affected by the action. Use the following codes to enter details in columns 3, 4 and 5.

**Column 3 Conservation status of threatened species or ecological communities under EPBC Act**

EW Extinct in the wild  
EX Extinct  
CE Critically endangered  
EN Endangered  
VU Vulnerable  
CD Conservation dependent

**Column 5 Type of effect**

DE Death  
IN Injury  
TR Trading  
TA Taking  
KE Keeping  
MO Moving

Details of species or ecological communities that will be affected by the action.

Common name of listed species/ecological communities, listed migratory species, or listed marine species.	Scientific name of species Common and scientific names are available at the Department's website: <a href="http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl">www.environment.gov.au/cgi-bin/sprat/public/sprat.pl</a>	Conservation status under EPBC Act	Estimated number that will be affected. For ecological communities, provide estimate of the affected area	Type of effect
Phascolarctos cinereus	Koala	EN	2-4	MO

Where the project is of less than 1 km<sup>2</sup> in size, provide the location as a single pair of latitude and longitude references. Latitude and longitude references should be used instead of AMG and/or digital coordinates.

Locality:

Latitude: 34 degrees: 3 minutes: 7.14 seconds:

Longitude: 150 degrees: 58 minutes: 25.84 seconds:

Where the project area is greater than 1 km<sup>2</sup>, or any dimension is greater than 1 km, provide additional coordinates to enable accurate identification of the location of the project area.

- 34° 3' 33.63" S and 150° 59' 41.94"E to 34° 3' 7.14"S and 150° 58' 25.84"E

Attach a map to show the boundaries of the area in which the action will be conducted.

See Att A - ANSTO HRB - Proposed burn map

3 Provide an attachment describing the action addressing the following points.

- A. The objectives and purposes of the action;
- B. The equipment and methods used;

See [Att B - ANSTO HRB - NSW RFS Burn Plan](#) for details about the proposed hazard reduction burn plan, and [Att C - ANSTO HRB - Koala Impact Mitigation Plan](#) for details about the actions to manage, capture and relocate Koalas located with the burn area. [Att D - ANSTO HRB - Sutherland Shire Council Review of Environmental Factors](#) provides details on the latent environmental conditions of the proposed burn area.

4 What are the likely short and long term impacts of the proposed action on the species or the ecological community?

The proposal is to move a yet to be determined number of Koalas away from a proposed hazard reduction burn area on Commonwealth land, managed by the Australian Nuclear Science and Technology Organisation (ANSTO) at Lucas Heights, NSW. Koalas which can be successfully captured and moved from the burn area will be moved to a suitable location nearby, but outside of the proposed burn area. The number of Koalas to be moved will be determined during a thermal imaging survey the night before the burn is scheduled to occur. The number of Koalas estimated to be present within the burn area is 2-4, based upon previous surveys of the area (see [Att E - ANSTO HRB - Flora and Fauna Assessment - Ecoplanning](#)). Any identified Koalas within the burn area will aim to be relocated into trees of the same species as the individual has been relocated from, or otherwise into trees which Koalas forage.

#### Short-term impacts

- Limited stress to Koalas identified and relocated is likely.
- Relocated Koalas may attempt to return to their original range, increasing the risk of Koala returning to burn area and sustaining flesh burns when traversing the burnt ground and understorey.
- Relocated Koalas may be at risk of vehicle strikes on the nearby major roads, Heathcote Road and New Illawarra Road.
- Relocated Koalas may also attempt to traverse the Lucas Heights Science and Technology Centre, which may result in injuries sustained from interacting with the infrastructure.
- There will be a temporary reduction in Koala food and viable habitat within the burn area following the burn.
- There is a risk that the thermal imaging immediately prior to the burn will not locate all Koalas within the burn area, which may result in individuals experiencing substantial stress or injury if they attempt to descend to the understorey during the burn.

#### Long-term impacts

- As this burn aims to reduce the understorey fuel load and limit scorch heights to <4 m, the impact to the overall vegetation coverage will be low. Canopy coverage, which primarily supports Koala food, should not be significantly impacted. For vegetation impacted by the burn, the

timescale for full regeneration is likely to be within 2-3 years<sup>1</sup>.

- During this period, there will be a reduction of feedstock in the understorey, which may deter Koalas and other fauna from accessing the burn area, which will have a limited impact on the biodiversity of the burn area.
- While the burn plan aims to not impact the canopy or crown, the NSW Rural Fire Service estimates that due to the landscape, vegetation and topography, up to 30% of the canopy may be scorched, which will have a medium-term impact on the availability of Koala forage.
- The prescribed burn aims to reduce the understorey fuel load from 25 tonnes/hectare to less than 5 tonnes/hectare. This will reduce the risk of uncontrolled high intensity fires within the burn area until the fuel load is replenished, likely within 5-7 years. Limiting the frequency of uncontrolled high intensity fires should aid the maintenance of the biodiversity within the burn area, and long-term sustainability of the local Koala population.
- There is a low risk that exotic floral species may propagate to new areas if not controlled post-burn during the period of native vegetation regeneration, particularly along riparian zones and areas adjacent to roads and urbanised infrastructure. This may affect the long-term biodiversity of the area.

<sup>1</sup> Heath et. al. 2016, Post-fire recovery of eucalypt-dominated vegetation communities in the Sydney Basin, Australia. *Fire Ecology* 12(3), p.64. <https://fireecology.springeropen.com/articles/10.4996/fireecology.1203053>

*The regeneration period has been estimated from the above source and compared to the Erskine Creek, NSW study area, due to the similarities in vegetation community classification, topography and climate.*

5 Describe the steps that will be taken to minimise impacts on the listed species/ecological community, including contingency plans in the case of events that may adversely affect members of the species/ecological community.

#### Mitigation measures:

- A thermal imaging drone survey for Koalas will be conducted the night immediately prior to the proposed burn. An ecologist will be present during the survey to capture and relocate any identified Koalas to areas outside of, but in reasonable proximity to, the burn area. Relocated Koalas will be relocated into the same species tree or other suitable Koala foraging species.
- A veterinary health assessment will be conducted on any captured Koalas prior to release at a suitable relocation area.
- If a Koala cannot be captured, the location of the tree will be confirmed, and a suitably sized burn avoidance zone established around the tree, by raking the flammable bark, leaves, twigs, and other vegetation away from the base of trees in which Koalas remain. If any of these trees have flammable bark e.g., stringybarks, peppermints or boxes that extends more than a metre up the trunk, a rake-hoe will be used to scrape the bark off the trunk as far up as from the

ground level as practicable to stop the ground fire burning up the trunk into the canopy.

- Conducting the burn in a manner that avoids trapping fauna or forcing them onto nearby major roads.
- ANSTO and the RFS will seek to conduct the burn during scheduled closure periods for the Heathcote Rd. Alternative traffic management arrangements such as implementing temporary lane closure and reduced speed limits will be considered in consultation with NSW Roads and Maritime Services.
- If after commencement of the burn, previously unidentified Koalas are observed within the burn area, the operations will be paused to assess whether the Koala can be moved to a suitable area outside of the burn area, or if an avoidance zone can be established. Re-commencement will only occur after an ecologist has provided confirmation to re-commence.

6 Attach a description of any research relevant to the affected species or communities that will be carried out during or in conjunction with the proposed action, including:

- A. a copy of the research proposal;
- B. the names of the researchers and institutions involved in or supporting the research; and
- C. relationship of the researchers to the permit applicant, including any funding being provided by the permit applicant.

7 Will the action involve invasive techniques?

No  **Go to next question**

Yes  If permit relates to mammals, birds, reptiles or amphibians, attach evidence that the proposed methods have been approved by an independent Animal Ethics Committee (this may include a State or Territory ethics committee, even if the action is conducted in a Commonwealth area).

**A permit can only be issued under one of the following criteria: the action**

- will contribute significantly to the conservation of a listed species/ecological community (go to Question 8); or
- will be incidental to, and not the purpose of the action (go to Question 12); or
- is of particular significance to indigenous tradition (go to Question 15); or
- is necessary to control pathogen(s) (go to Question 18).

8 Are you applying on the basis that the action will contribute significantly to the conservation of a listed species/ecological community?

No  **Go to 12**

Yes  **Go to next question**

9 Why do you believe that the action will contribute significantly to the conservation of listed species/ecological communities, listed migratory species or listed marine species?

This action aims to balance any direct impacts to individual Koalas present within the burn area with longer-term habitat resilience through lowering the risk of high intensity, uncontrolled bushfires.

The viable habitat and overall population size of Koalas in NSW was significantly reduced as a result of the 2019-20 bushfires. 30% of the Sydney Basin bioregion was impacted by these fires<sup>2</sup>, with an estimated 7.1% decline in the combined Queensland, NSW and ACT Koala population as a direct result of these bushfires<sup>3</sup>.

This action aims to reduce the understorey fuel load within the burn area, which will reduce the risk of a high intensity, uncontrolled bushfire, such as those experienced during the 2019-20 bushfires, impacting the area over the next 5-7 years.

The previously mentioned mitigation measures in section 5 will be established to ensure that Koalas present within the proposed burn area are either identified and safely relocated to suitable nearby habitat, or are provided the protections if they cannot be relocated, to minimise the risk of stress, injury or death to any individual.

<sup>2</sup> Department of Agriculture, Water and the Environment, 2022. Conservation Advice for *Phascolarctos cinereus* (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory, p.7. <http://www.environment.gov.au/biodiversity/threatened/species/pubs/85104-conservation-advice-12022022.pdf>.

<sup>3</sup> Ibid., pp.16-17.

10 Will the proposed action implement the recommendations of any recovery plan or wildlife conservation plan in force for the species or ecological community that may be affected by the action?

*Commonwealth recovery plans that are in force are available at [www.environment.gov.au/biodiversity/threatened/recovery-list-common.html](http://www.environment.gov.au/biodiversity/threatened/recovery-list-common.html)*

*Commonwealth wildlife conservation plans that are in force are available at [www.environment.gov.au/biodiversity/migratory/publications/shorebird-plan.html](http://www.environment.gov.au/biodiversity/migratory/publications/shorebird-plan.html)*

*State and territory recovery plans are available from state and territory environmental agencies.*

No  **Go to next question**

Yes  Describe how this will be implemented.

Supporting Action 5d: National Recovery Plan for the Koala: *Phascolarctos cinereus* (combined populations of Queensland, New South Wales and the Australian Capital Territory). <https://www.dcceew.gov.au/sites/default/files/documents/recovery-plan-koala-2022.pdf>

*Improve the condition of existing Koala habitat on both private and public land through best-practice land management, including management of vegetation, fire, weeds, and introduced species.*

The existing fuel-load within the proposed burn area is considered very high, which has increased the risk of a high-intensity, uncontrolled bushfire within the area. Bushfires of this intensity are likely to have a significant impact on any Koala population in the area. This proposed action will aim to reduce the understorey fuel-load to levels which will significantly reduce the risk of a high intensity bushfire over the next 5-7 years.

- 11 Will the proposed action respond directly or indirectly to recommendations of any national or international organisation responsible for management of the affected species?

No  **Go to next question**

Yes  Describe how the proposed action will respond.

- 12 Are you applying on the basis that the impact of the action will be incidental to, and not the purpose of, the action?

No  **Go to 15**

Yes  **Go to next question**

- 13 Why do you believe that the impact of the action will be incidental to and not the purpose of the action?

The purpose of the action is to perform a hazard reduction burn within an area of Commonwealth land which has been assessed as having a very high understorey fire fuel-load (25 tonnes/hectare). The aim of this burn is to establish a strategic fire advantage zone for the ANSTO Lucas Heights campus and to decrease the risk for the next 5-7 years of any uncontrolled, high intensity bushfires moving from the general westerly direction impacting the communities of Engadine and Heathcote.

- 14 Why do you believe that the taking of the action will not adversely affect the:

- survival or recovery in nature of the species or ecological community?
- conservation status of a listed species or ecological community?

The action of capturing and moving any Koalas is aimed at increasing the survival rate of individuals present within the burn area. The estimated number of individuals which may be present within the burn area is 2-4. It is reasonable to assume that there has been a significant decline in the Sydney Basin Koala population since the study performed in 2012 estimated 5,667 individuals, as a result of the 2019-20 bushfires and other stressors<sup>4</sup>. Considering the impact on Koala habitat within this region from the 2019-20 bushfires was about 30%, the likely proportion of Koalas to be impacted by the action compared to the Sydney Basin population is in the order 0.05-0.1 % of the population, noting that the mitigation measures mentioned previously are intended to minimise the risk of stress, injury or death to these individuals.

<sup>4</sup>Adams-Hosking C, et. al. (2011). Modelling climate-change-induced shifts in the distribution of the koala. *Wildlife Research* 38, pp. 122-130.

- 15 Are you applying on the basis that the action is of particular significance to indigenous tradition?

No  **Go to 18**

Yes  **Go to next question**

**16** Explain why do you believe that the proposed action will be of particular significance to indigenous tradition?

**17** Why do you believe that the proposed action will not adversely affect the:

- i. survival or recovery in nature of the listed species or ecological community; or
- ii. conservation status of the listed species or ecological community.

**18** Are you applying on the basis that the action is necessary to control a pathogen(s), and is conducted in a way that will, as far as is practicable, keep to a minimum any impact on listed species/ecological communities, listed migratory species or listed marine species?

No  **Continue to Payment Section**

Yes  **Go to next question**

**19** Why do you believe that the action is necessary for the control of pathogen(s)?

**20** Explain how the action will be conducted in a way to minimise impacts on the species/communities affected.

**If you have answered NO to Questions 8, 12, 15 and 18, it is unlikely that a permit can be issued under the EPBC Act.**

**21 Fees**

The following fees apply:

- permits relating to listed threatened species or ecological communities - \$100
- permits relating to listed migratory species - nil
- permits relating to listed marine species – nil

Please note that exemption from fee payment may apply under circumstances as set out in EPBC Regulation 18.04.

## 22 Method of Payment

To make a payment, the department's preferred methods of payment are by credit card, bank cheque or by electronic funds transfer (EFT). A tax invoice can be arranged prior to payment, but you should allow up to five business days to process the transaction.

Please contact [EPBC.permits@awe.gov.au](mailto:EPBC.permits@awe.gov.au) if you would like to request a tax invoice.

### Credit Card

Please submit your permit application to the Department to obtain a permit reference number. This reference number will be required when you contact the Department to make the payment.

Contact the Collector of Public Money (Accounts)  
on (02) 6274 1151

### EFT Payments

EFT Payments can be made to:

BSB: 092-009

Bank Account No. 115859

Amount: See applicable fee in section 21 above.

Account Name: Department of Agriculture, Water and the Environment

Department address: GPO Box 858, Canberra ACT 2601

Bank: Reserve Bank of Australia

Bank Address: 20-22 London Circuit Canberra ACT 2601

Description: Part 13 permit application fee [Include name of project]

Reference: [include Permit reference number (if known)]

## 23 Attachments

Indicate below which documents are attached.

Description of proposed action

**See question 3**

Description of relevant research

**See question 6**

Evidence of approval of invasive techniques

**See question 7**

Details for payment of fee

**See question 22**

## 24 Declaration

I declare that the information contained in this supplementary form is correct to the best of my knowledge.

Signature of applicant

Name of person signing

(Acting) GM – AME-Maintenance

Date

2/8/23

### Send this application and fee to:

EPBC Referrals  
Environment Approvals Division  
Department of Agriculture, Water and the Environment

GPO Box 858  
CANBERRA ACT 2601

Email: [EPBC.Permits@awe.gov.au](mailto:EPBC.Permits@awe.gov.au)