General Information

It is the responsibility of the **Principal Investigator** to ensure that all facets of animal care and use meet the requirements of the Australian code for the care and use of animals for scientific purposes (the Code). This includes a responsibility to protect and promote the welfare of animals used.

The Code embodies the principles of:

* Reduction of animal use;
* Replacement of animal use; and
* Refinement of animal use.

It is important to consider these principles when designing and carrying out projects.

Under the NSW Animal Research Act, approval by an Animal Ethics Committee (AEC) is required for the use of any vertebrate animals for research and teaching.

The Code requires that before commencing a project investigators must:

1. Submit an application to the AEC
2. Obtain written approval from the AEC

Projects are approved for a maximum of 3 years. However, for exceptional cases involving projects with a Taronga Conservation Society Australia (Taronga) employee as the Principal Investigator, approval may be requested for up to 5 years. The extended approval duration must be approved by the AEC Chair and Manager, Conservation Science, prior to the application being submitted. Animal Research Authorities are issued for a maximum of 12 months. Ongoing project approval is subject to the AEC’s consideration and approval of a renewal application.

The AEC must assess the impact on animals of all procedures and of the project as a whole. The application should therefore focus on **what is happening to animals** and **what is being done to ensure their well-being**. It is important that this information is presented in a way that shows clearly what is happening to individual animals from the beginning to the completion of a project. The impact of procedures needs to be clearly detailed. The Principal Investigator should provide a step by step examination of all treatments (substances, dose rates, routes, volumes, anaesthetics, surgical procedures etc) and the expected effects. Flow charts or sequence of events tables are often useful. In addition, factors that will impact on animals such as housing (type, duration, opportunity for social interaction) should be considered.

The application should also explain clearly why the use of animals is justified, why the species and number of animals have been chosen and that the qualifications of personnel are suitable for the procedures to be performed.

It is important for applicants to remember the composition of the AEC. The AEC is composed of members who are mostly not experts in your field. Applications must be written primarily for an interested, intelligent person without a scientific background, not for a specialist. The use of specialist language is not helpful to the committee and may delay processing of an application while explanations are sought.

Prior to consideration by the AEC, proposals must meet the approval of relevant Taronga Divisional, Veterinary, Conservation, Population and Welfare, and Conservation Science departments and the Director, Welfare, Conservation and Science. Proposals should be submitted at least 4 weeks before the AEC meeting to allow appropriate time for assessment by these departments prior to AEC meetings.

Principal Investigators are encouraged to attend the relevant meeting of the AEC to participate in discussion regarding their proposed research.

Principal Investigators should be familiar with:

* The Australian code for the care and use of animals for scientific purposes, published by the National Health and Medical Research Council
* NSW Animal Research Act 1985; and
* NSW Animal Research Regulation 2010.

**Note:** Please be aware that support for the application will be subject to a Departmental review and approval of the operational perspectives. Accordingly, the Principal Investigator is strongly advised to discuss the feasibility of the project with relevant Taronga staff prior to submitting the application.

Information must be typed and all sections must be completed.

**PLEASE ENSURE WHEREVER POSSIBLE THAT ALL APPLICATIONS AND REPORTS ARE WRITTEN IN LAY TERMS AND AVOID JARGON.**

You should e-mail your application to: [animalethics@zoo.nsw.gov.au](mailto:animalethics@zoo.nsw.gov.au)

If you have any questions regarding the completion of this form, please contact Dr Justine O’Brien, Chair of Animal Ethics Committee, telephone: (02) 9978 4608 or e-mail [animalethics@zoo.nsw.gov.au](mailto:animalethics@zoo.nsw.gov.au).

**Acknowledgments** The assistance of the following in producing a draft form is gratefully acknowledged: Ms Gail Briody (University of Sydney), Dr Stephen Burman (Pitman Moore), Ms Renate Domel (ANSTO), A/Prof Rosemarie Einstein (University of Sydney), Ms Francine Kelly (Royal North Shore Hospital), Prof Michael Perry, (University of NSW), A/Prof Margaret Rose (ARRP), Mrs Margaret Wright (University of NSW).

Guidance for completion of specific questions

14. Aim of the project in lay terms  
A brief description of the aims and significance of the project would usually be adequate. There needs to be a balance between brevity and completeness but remember the description should be designed for a lay audience (people with no scientific background).

16-19. Reasons for animal use  
Alternatives to using animals must be investigated and used wherever possible. The AEC must be informed of alternatives that exist and why these cannot be used.

20-21. Number of animals  
It should clearly be explained why the number of animals has been chosen. Too few animals (resulting in statistically insignificant data) may be as much of a problem as too many animals.

22. Sequence of events  
It is important to present this section so that it is clear what is happening to animals from the beginning to the end of the project and over what time sequence. Flow charts and other diagrams are often helpful. Where several groups of animals receive different treatments, listing them in tabular form may assist.

23-25. Impact  
It is very important that you provide all the relevant information and answer the questions as fully as possible. The CHECKLIST that accompanies the form will help you in this.

26-28. Monitoring  
The level of monitoring required will vary according to the type of research and animals used. Some of this information may have already been provided in answer to the questions on impact but it should be repeated to assist the committee. Details should include methods used and frequency of monitoring. Please communicate with Taronga staff if information is required.

29-34. Animal housing and management  
Standards of animal housing and management can have a significant impact on animal well-being and thus on experimental results. It is therefore important that a full description of housing is provided. Please communicate with Taronga staff if information is required.

35. Source  
Under the legislation, non-exempt animals must be obtained from a licensed animal supplier. Issues such as capture of wild animals or obtaining animals from remote sources that will necessitate prolonged transport will also need to be considered by the committee and the answer should be as complete as possible.

40. Euthanasia

This question must be answered in all applications, whether euthanasia is a foreseeable consequence of the project or not.

41. Technical competence

Describe if experience is relevant to the species to be used as well as type and length (years) of experience.

**PLEASE ENSURE WHEREVER POSSIBLE THAT ALL APPLICATIONS AND REPORTS ARE WRITTEN IN LAY TERMS.**

Section 1: Administration

|  |  |  |  |
| --- | --- | --- | --- |
| **1. Title of project:** |  | | |
| **2. Principal Investigator (PI):** | Name: |  | |
| Institution or Affiliation: |  | |
| Position held at institution: |  | |
| Contact Address: |  | |
| Telephone (w):  Telephone (m):  Telephone (h): |  | |
| Email address: |  | |
| Relationship with Taronga (e.g. employee, scientific associate, collaborative researcher): |  | |
| If PI is not Taronga staff, please provide the name of your Taronga contact: |  | |
| **3. Proposed date of commencement:** |  | | |
| **4. Proposed date of completion:** |  | | |
| **5. Location of the proposed research activity:** |  | | |
| 6. Does this project involve collaboration with other organisations or institutions? | Yes  No  *A collaborative project refers to research or teaching involving the use of animals where people (e.g. employees, students) from two or more institutions work on the same project. This may occur at one location or over a number of locations.* | | |
| If yes to Q6: state the name of the organisation or institution and the agreed upon roles of each partner.   |  |  | | --- | --- | | Organisation/institution | Distinct role | |  |  | |  |  | |  |  | | | | |
| 7. Please indicate whether this application is for: | 7.1 A new project? | | **Yes  No** |
| 7.2 A project which has (previously or simultaneously) been submitted to this or another animal ethics committee? | | **Yes  No** |
| *If Yes to Q7.2: Provide reasons for re-submission or simultaneous submission and the name of the AEC(s)*:  *\*Once this application has been approved by the AEC, you will receive an approval letter outlining the PI’s responsibilities to distribute documents between this AEC and the collaborative establishments AEC.* | | |
| 7.3 A significantly revised current protocol? | | **Yes  No** |
| *If Yes to Q7.3: Quote the approval number and species and number of animals used to date:* | | |

|  |  |
| --- | --- |
| 8. Is this project part of a larger project that has been submitted to this or another animal ethics committee? | Yes  No |
| *If Yes to Q8: State the name of the corresponding committee and attach approval where appropriate.*  *\*Once this application has been approved by the AEC, you will receive an approval letter outlining the PI’s responsibilities to distribute documents between this AEC and the collaborative establishments AEC.* | |

|  |  |  |  |
| --- | --- | --- | --- |
| 9. Has a funding application been lodged to support the project? | | **Yes  No** | |
| *If Yes to Q9: State the name of the organisation and date of application and whether the application has to date been successful.* | | | |
| **10. If a funding application is not successful, will the project still go ahead?** | **Yes  No  Not applicable** | | |
| **11. Does the project involve recombinant DNA technology or infectious, toxic, radioactive or carcinogenic agents that may be harmful to other animals or persons?** | | **Yes  No** | |
| If Yes to Q11:  11.1 Will adequate precautions be taken in accordance with statutory requirements and have relevant personnel been informed? | **Yes  No** |
| 10.2 Has the appropriate authority or licence been obtained? | **Yes  No  Not applicable** |
| 12. Does the project involve native, imported or protected species? | | **Yes  No** | |
| *If Yes to Q12:*  Have the relevant licences been obtained from the National Parks and Wildlife Service or other authorities? | **Yes  No**  Permit issued by:  Permit number: |
| 13. Have any of the project investigators or affiliated institutions ever had an animal research authority or animal suppliers licence cancelled? | | Yes  No | |
| *If Yes to Q13: Please specify and give details.* | | | |

Section 2: Justification for animal use

Aim of the Project in Lay Terms

The Code states that “Animal experiments may only be performed when the scientific merit justifies the use of animals”. Your answer is crucial for the assessment of scientific merit and the necessity of animal use. Use lay terms — terms that will be understood by a person without a scientific background.

|  |
| --- |
| **14. Describe the aims of the project in lay terms.**  *Comment on the significance of the research which you believe justifies the use of animals. Specify what you hope to achieve.* |
| **15. If the project repeats previously reported experiments, give the reasons for the experiments to be repeated.** |

## 

Reasons for Animal Use

|  |
| --- |
| **16. Why is it necessary to use animals in this experiment?** |
| **17. What alternatives to animals have been considered and why is it not possible to use these?** |
| **18. What species of animal will be used? Give the scientific and common name (and strain, age, sex and weight if applicable).** |
| **19. Why has this species (and strain, age, sex and weight if applicable) of animal been chosen?** |

Numbers of Animals

|  |
| --- |
| **20. How many animals will be required?** |
| **21. Explain in detail how you have determined the number of animals necessary for this project and describe the ways that you propose to minimise the use of animals. For experimental protocols, include details of statistical power analyses.**  *Please do not include details of methodology in this section (please provide in Section 3).* |

## Section 3: Ethical Considerations *Sequence of events*

1. Assessment of the impact on animal well-being

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| --- |
| **22. Give details (sequentially) on what happens to the animal(s) from the time you obtain them until the time the project is completed**.  *A flow chart or sequence of events table may assist in making this information clear.* |

## Impact

|  |
| --- |
| **23. Identify all factors and procedures that may have an impact on an animal's well-being.**  *This may include handling, housing etc as well as specific experimental procedures. (Refer to the CHECKLIST to ensure all details have been considered).* |
| **24. Describe each factor or procedure and detail how any adverse impact will be minimised.**  *Details should include treatment substances, dose rates, routes of administration, anaesthetic and analgesic regimes etc. if applicable. (Refer to the CHECKLIST to ensure that all details have been considered)* |
| **25. What is the duration and level of invasiveness? Please select a number and letter from table below for each part of this question, and explain where necessary.** |
| *25.1 Throughout the project as a whole, including general changes in environment (e.g. B4)* |
| *25.2 During intensive phases of the project (e.g. D1)* |

Categories of invasiveness (A,B,C,D,E) and duration (1,2,3,4,5):

A: Experiments on most invertebrates or on live isolates   
B: Experiments that cause little or no discomfort or stress   
C: Experiments that cause minor stress or pain   
D: Experiments that cause moderate to severe distress or discomfort   
E: Experiments that cause severe pain near, at, or above the pain tolerance threshold of un-anaesthetised conscious animals

1: Stimulus of very short duration (less than one minute)   
2: Stimulus of short duration (less than one day)   
3: Stimulus of intermediate duration (1 day to 1 month)   
4: Stimulus of long duration (greater than one month)   
5: Permanent effect or change

Animal Monitoring

|  |
| --- |
| **26. Who will monitor the animals? Include names, qualifications and experience with the species being used.** |
| *26.1 During weekdays?* |
| *26.2 At night (if applicable)?* |
| *26.3 During weekends and holidays?* |
| **27. How will animals be monitored while the procedures are carried out? Include frequency and methods used.** |
| **28. How will animals be monitored for the duration of the project? Include frequency and methods used.** |

Animal housing and management

|  |
| --- |
| **29. Where will animals be housed?** |
| **30. Describe the type of housing to be provided.** |
| **31. What will be the maximum and minimum number of animals per cage/pen?** |
| **32. Where will procedures be performed?** |
| **33. What will animals be fed, and how often will they be fed?** |
| **34. Who will be responsible for the management of emergencies and how will you ensure that the nominee(s) can be contacted?** |

Source

|  |
| --- |
| **35. Where will you get the animals from?** |

Duration

|  |
| --- |
| **36. What will be the maximum time an individual animal is handled for this research?** |

Re-use

|  |  |
| --- | --- |
| **37. Does this project involve the use of any animals that have been the subject of previous research?** | **Yes  No** |
| *If Yes to Q37: What has previously been done to these animals? Include project name(s) and identification number(s). If using Taronga collection animals, please contact the relevant divisional manager for details.* | |

Fate of animals

|  |  |
| --- | --- |
| **38. What will happen to the animals at the completion of the project?** | |
| **39. Will factors affecting animals determine the endpoint of the project (eg tumour size, maximum weight loss)?** | **Yes  No** |
| *If Yes to Q39, give details:*  *If No, what will be the end point?* | |
| **40. All applications must consider this question as a contingency even if euthanasia is not a planned outcome of the research. Approvals for applications missing this information WILL NOT be granted. If animals are to be euthanased please describe:** | |
| *40.1 How will this be done?* | |
| *40.2 Where will euthanasia be carried out?* | |
| *40.3 Who will do it, and what is their experience in the technique to be used?* | |
| *40.4 Could animal tissue be shared with other investigators?* | |

Technical Competence

|  |  |  |  |
| --- | --- | --- | --- |
| **41. Please provide details on procedures to be carried out on all tissues and samples collected from animals, and which investigator is responsible for these procedures.** | | | |
| **42. List the qualifications and experience of all personnel who will be participating in the animal components of the project? Detail whether the experience is with the species being used, as well as whether the experience is with the procedures being undertaken:** | | | |
| Role *(Principal Investigator, Associate investigator, Supervisor, Other participant)* | **Name and Qualifications** | Experience in procedures to be undertaken and the species being used*(If no experience, describe how relevant experience will be obtained)* | Contact details(Phone and email) |
|  |  |  |  |
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Section 4: Declaration of Responsibility

I certify that the use of animals in this project will conform with the NSW legislation and the general principles of the Australian code for the care and use of animals for scientific purposes.

I accept responsibility for the conduct of all procedures detailed in this application and for the supervision of all personnel delegated to perform any such procedures.

I confirm that all personnel have read this application and have agreed to comply with procedures described and any conditions imposed by the AEC.

I declare that I have the appropriate qualifications and experience to perform the procedures described in this project and to ensure that they are done correctly.

I further declare that the procedures described in this project do not constitute unnecessary repetition of work previously carried out by other research workers or myself.

I declare that each person engaged in this project has been adequately instructed in, and is competent to perform procedures they are to carry out. If they are not already skilled in the procedures, I will be responsible for insuring that they obtain the necessary training in advance, so that each procedure on an animal will be carried out in the most appropriate manner.

Name of Principal Investigator:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Alternate Principal Investigator:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Associate‑lnvestigator:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Declaration by Head of Department/School (if applicable)**

I have read this application and am satisfied that the use of animals is justified on scientific, educational or diagnostic grounds.

Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Head of Department/School:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Checklist

## What is happening to the animals?

## What will be the effects?

## How will the effects be minimised?

|  |  |
| --- | --- |
| Anaesthesia  Fasting Induction — drug, dose, route Maintenance — drug, dose, route Methods of monitoring anaesthesia and recovery Additional support during anaesthesia and recovery (eg heat, intravenous fluids) Location of induction and recovery areas | Blood/body fluid collection  Volume Route Frequency Anaesthesia or analgesia Restraint Animal monitoring (methods, frequency) |
| **Behaviour modification**  Stimulus (type, duration, frequency) | Genetic manipulation Methods Potential effects |
| **Toxicology** Substance Volume Route Frequency of treatments / total number per animal Local and systemic effects Anaesthesia or analgesia Restraint Animal monitoring (methods, frequency) Endpoint/duration | Surgery Anaesthesia Location of pre-operative preparation area Pre-operative preparation Surgical procedure (site, technique) Sterile technique (instruments, drapes, surgeon) Location of and housing in post-operative recovery area Post-operative management Post-operative monitoring (methods, frequency, duration) Use of analgesics (type, dose, route, frequency, means of determining necessity for use) Expertise |
| Diet/water modifications  TypeAmountEffectsMeasurement of intakeAnimal monitoring | Transport Type Duration Confinement Numbers of animals Air-conditioning |
| Drug treatments Substance Volume Route Frequency/total number per animal Local and systemic effects Anaesthesia or analgesia Possible side effects Restraint | Housing LocationIsolationGroup housing (stocking rates, sexes)ShelterBeddingHiding areasEnvironmental enrichmentDuration heldConditioning period |
| **Euthanasia** Method Location (where procedure will be performed) Expertise of personnel | In-vitro studiesSource of animalsDuration heldEuthanasia |