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**JAMES COOK UNIVERSITY**

**ANIMAL ETHICS COMMITTEE**

**APPLICATION FOR AN ANIMAL BREEDING PROGRAM**

***Please email an electronic copy of the application form and proposed animal usage to:*** [**ethics@jcu.edu.au**](mailto:ethics@jcu.edu.au)

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| *Animal Welfare Unit, Biosecurity Qld*  *DAF, Scientific Registration Number: 0013*  *Registered User: James Cook University* | ANIMAL ETHICS NUMBER  *(Office Use ONLY)* | A |
| WHEN COMPLETING THE APPLICATION, REFER TO THE AEC APPLICATION GUIDE  ALL RELEVANT SECTIONS OF THE APPLICATION MUST BE COMPLETED  INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT | | |

**PART 1 – ADMINISTRATION AND COMPLIANCE**

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| **1** | **Title of project** |  |

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| **2** | **Purpose Category**  **What is the purpose of the project?** (Use drop-down box) (See Appendix 1 for explanation of the categories) | Primary |

**3 Personnel**

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| **3** | **Conflict of Interest**  Does anyone involved in this project have any actual or potential interest, including any financial interest or other relationship or affiliation, that may affect judgements and decisions regarding the wellbeing of the animals involved? If so, please provide details. |
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**Principal Investigator /Academic Supervisor**

If the Principal Investigator is a student, complete the information below for their Supervisor in the project and the Supervisor becomes the person with ultimate responsibility for the oversight of the project, and so must sign in place of the Principal Investigator in the declaration.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **3** | **Title first and last names** |  | | | | | |
| **Qualifications** |  | | | | | |
| **Phone** |  | | **Mobile** | | |  |
| **Email** |  | | | | | |
| **Discipline, school or organisation** |  | | | | | |
| **What is your relationship to JCU? 1** |  | | | | | |
| **JC Number (if applicable)** |  | | | | | |
| **Does this project contribute to a higher degree by research?**  If ‘Yes’ provide details of your supervisor and have your supervisor sign the declaration below. | | No | | Yes | If ‘Yes’, which degree (PhD, MSc etc) | |
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| **Role**  What will be your role in the project? | | | | | | |
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| **Experience**  Outline your experience in the role/experience/species used or outline how you will be trained and supervised until competent. | | | | | | |
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*Indicate if the investigator is currently an* ***E****mployee or a* ***S****tudent of JCU, or a researcher who is* ***N****ot affiliated with JCU. If not affiliate with JCU, provide details of the organisation’s QLD Animal Research Registration including registration number below under the signatures.*

**Academic Supervisor Details (if applicable)**

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| --- | --- | --- | --- | --- |
| **3** | **Title first and last names** |  | | |
| **Qualifications** |  | | |
| **Phone** |  | **Mobile** |  |
| **Email** |  | | |
| **Discipline, school or organisation** |  | | |
| **What is your relationship to JCU? 1** |  | | |

**4 Co-investigators**

Copy and paste more tables if required, or delete tables that are not used.

**Co-investigator 1 (Please sign declarations at the end of the application)**

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| **3** | **Title first and last names** |  | | | | | |
| **Qualifications** |  | | | | | |
| **Phone** |  | | **Mobile** | | |  |
| **Email** |  | | | | | |
| **Discipline, school or organisation** |  | | | | | |
| **What is your relationship to JCU? 1** |  | | | | | |
| **JC Number (if applicable)** |  | | | | | |
| **Does this project contribute to a higher degree by research?**  If ‘Yes’ provide details of your supervisor and have your supervisor sign the declaration below. | | No | | Yes | If ‘Yes’, which degree (PhD, MSc etc) | |
|  | |
| **Role**  What will be your role in the project? | | | | | | |
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| **Experience**  Outline your experience in the role/experience/species used or outline how you will be trained and supervised until competent. | | | | | | |
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**Co-investigator 2 (Please sign declarations at the end of the application)**

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| **3** | **Title first and last names** |  | | | | | |
| **Qualifications** |  | | | | | |
| **Phone** |  | | **Mobile** | | |  |
| **Email** |  | | | | | |
| **Discipline, school or organisation** |  | | | | | |
| **What is your relationship to JCU? 1** |  | | | | | |
| **JC Number (if applicable)** |  | | | | | |
| **Does this project contribute to a higher degree by research?**  If ‘Yes’ provide details of your supervisor and have your supervisor sign the declaration below. | | No | | Yes | If ‘Yes’, which degree (PhD, MSc etc) | |
|  | |
| **Role**  What will be your role in the project? | | | | | | |
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| **Experience**  Outline your experience in the role/experience/species used or outline how you will be trained and supervised until competent. | | | | | | |
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**Co-investigator 3 (Please sign declarations at the end of the application)**

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| **3** | **Title first and last names** |  | | | | | |
| **Qualifications** |  | | | | | |
| **Phone** |  | | **Mobile** | | |  |
| **Email** |  | | | | | |
| **Discipline, school or organisation** |  | | | | | |
| **What is your relationship to JCU? 1** |  | | | | | |
| **JC Number (if applicable)** |  | | | | | |
| **Does this project contribute to a higher degree by research?**  If ‘Yes’ provide details of your supervisor and have your supervisor sign the declaration below. | | No | | Yes | If ‘Yes’, which degree (PhD, MSc etc) | |
|  | |
| **Role**  What will be your role in the project? | | | | | | |
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| **Experience**  Outline your experience in the role/experience/species used or outline how you will be trained and supervised until competent. | | | | | | |
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| **4** | **SOP List**  If any SOPs have been referred to in this application, please list these SOPs below (the reference number is adequate) | |
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| **5** | **Duration of project** (more than 3 years can be requested if matched to a grant/funding source) | 1 year | 2 years | 3 years |
| 4 years | 5 years |  |

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| **6** | **Funding Source – eg Grant (note received or applied for) or recurrent divisional budget** | | | |
| Grant title |  | | |
| Funding Body |  | Duration |  |
| Fund Scheme |  | Value | $ |
|  | Or Other (outline) |  |  |  |

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| **7a** | **Has this project been submitted to any other animal ethics committee?** | No | Yes |
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| **7b** | **If ‘Yes’, which AEC was it submitted to and what was the outcome of the submission?** |
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| **8a** | **Approvals, permits and biosafety – Does this project involve:** | Yes |
| Work in a national park? |  |
| Wildlife? |  |
| Endangered or threatened species or populations? |  |
| Any genetically modified animals or vectors? (including knock-out or knock-in animals, transgenic animals, cloned animals or GM bacterial, fungal or viral vectors) |  |
| Release of any genetically modified organisms into the environment? |  |
| Any infectious agents? |  |
| Interstate work? |  |
| International work? |  |

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| **8b** | **If ‘Yes’ to any of the above, indicate whether any additional licenses, permits or approvals are being applied for** (eg OGTR, Biosafety Committee, DEHP etc) |
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| **9** | **Collaborating Organisation(s)**  Provide the names of any organisations collaborating in the project (if applicable) |
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**PART 2 – JUSTIFICATION**

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| **10** | **Program Outline:**  Outline the breeding program covered by this application eg what animals are being bred |
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| **11** | **Justification for the use of animals:**  To justify establishing this breeding program, briefly outline how/where the resulting animals will be used. |
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| **12** | **Replacement:**  Please outline why you need to establish this breeding colony at JCU rather than sourcing animals from existing breeding colonies elsewhere. |
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**PART 3 – ANIMAL HOUSING, CARE AND HUSBANDRY**

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| **13** | **Research Facilities or Sites:**  Provide details of every location where living animals will be held or where animal procedures will take place. | | |
| **Laboratory / Facility Work** | | | |
| **Townsville** | | | |
|  | Immunogenetics Research Facility |  | AITHM Rodent Facility |
|  | Small Animal House (Building 86) |  | Bush House (Building 70) |
|  | Building 87 Labs |  | AITHM (Building 47) Labs |
|  | Building 28 – Constant Temperature Rooms |  | Building 28 Display |
|  | Veterinary Precinct – Pens/paddocks |  | Veterinary Precinct – Aquaculture |
|  | MARFU |  | Veterinary Precinct – Turtle Health Research Facility |
|  | The Science Place – Ground Level | The Science Place – Level 1 | |
|  | The Science Place – Level 2 |  | |
|  | Townsville other (please specify and provide location eg lab, rm, bld no.)) |  | |
| **Cairns** | | | |
|  | Cairns Rodent Facilities |  | Building E1 – Aquarium |
|  | Cairns campus other (please specify and provide location eg lab, rm, bld no.) |  | |
| **External** | | | |
|  | Orpheus Island Research Station |  | Fletcherview Station |
|  | Lizard Island Research Station |  | AIMS |
|  | External other (please specify and provide location) |  | |

**Facility Manager Application Copy**

If your project takes place in an animal facility, please provide a copy of your AEC application to the Facility Manager before submitting to the AEC to give them an opportunity to comment.

**The Facility Manager must sign the declaration in Question 33**

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| **Laboratory / Facility Work** | |
| **14** | **Source, transport and arrival (Commercially available species):**  If the animals are sourced from a breeder or supplier:  What is the source of the animals (source, suppliers, JCU breeding colonies)?  How will the animals be transported to the facility/location where they will be housed?  Describe how the animals will be acclimatised to the new housing before experiments begin – include period and any handling undertaken |
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| **Fieldwork** | |
| **15** | **Source and transport (Field work):**  If the animals are sourced from the wild:  Describe how they will be captured including details of the traps, nets,  Describe how they will be transported to the holding site. |
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| **16** | **Housing/Holding:**  Describe the type of caging/holding systems to be used for the animals including dimensions, number of animals per unit, bedding, environmental enrichment and environmental conditions.  If the project uses multiple types of housing for different parts of the project, describe each type including the reason for, and duration of holding in each.  If animals are to be housed individually, provide a reason for this and outline measures to be taken to prevent any stress associated with this social isolation.  **OR**  Provide or refer to an SOP containing the above details (provide a link or SOP reference below) |
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| **17** | **Husbandry, care and feeding:**  Describe the husbandry and care of the animals including frequency of cleaning, type of food/water and frequency of feeding/watering, grooming and other aspects that contribute to the wellbeing of the animals.  **OR**  Provide or refer to an SOP containing the above details (provide a link or SOP reference below) |
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| **18** | **Breeding Procedures:**  Outline the procedures used to breed the animals in the program, including the gestation, how and when the animals are paired, monitoring for pregnancy, birth, care of offspring etc  Include any assisted breeding procedures to be used  **OR**  Provide or refer to an SOP containing the above details (provide a link or SOP reference below) |
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**Part 4 – METHODS AND EXPERIMENTAL DESIGN**

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| **Animal Details** | |
| **19** | **Justification of choice of animal**  What is the reason for choosing the species/strain/genotype of animal(s) used in this project? |
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| **20** | **Welfare issues presented by choice of animal**  Does the animal you plan to use have any underlying animal welfare issues requiring special consideration? If so describe these and outline how their wellbeing will be provided for. Eg genetic modification that requires special diets, or native animals that need to be housed individually  **OR**  Provide or reference a Phenotype report for the GM strain of animal(s) you plan to use (provide reference below) |
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| **Reduction** | |
| **21** | **How will you ensure that there will be no over-production resulting in the wastage of animals?**  Include how you will determine the number of animals to pair, how you will monitor animal production and how you will keep records and report to the AEC. |
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| **22** | **Animal Numbers**  Complete the spreadsheet at the link below (Double-click in the box below to open the excel spreadsheet)  Each animal species/strain/line must be included separately, with details of average number of breeding animals held at any one time, and approx. yearly production of offspring (this includes animals born, animals bought in to replace retiring breeders etc). |
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| **23** | **Describe how the animals will be paired and provide details of the maximum and minimum numbers of breeding units (breeding pairs, harem groups, breeding females etc) that will be kept over the project.** |
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| **Refinement** | |
| **24** | If any procedures impact on animal wellbeing, state how potential adverse effects will be avoided or minimised, pain and distress will be avoided and the wellbeing of animals will be maintained.  Details could include treatment with substances, including antibiotics, anaesthetics and analgesics as well as their dose and each route of administration. Provide a brief description of measures taken to prevent any adverse effects the research may have on the animals involved.  OR  Provide or refer to an SOP containing the above details (provide a link or SOP reference below) |
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| **Animal Monitoring** | |
| **25** | **How will animal wellbeing be monitored?**  Include the frequency of monitoring, what criteria will be monitored to determine the wellbeing of the animal and wether they are experiencing pain or distress, which aspects of the monitoring will be done by the researcher and which will be done by animal technicians.  OR  Provide or refer to an SOP containing the above details (provide a link or SOP reference below) |
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| **Endpoints and Contingency Planning** | |
| **Laboratory or Facility Work** | |
| **26** | **What criteria will be used to determine when an animal’s time in the program will end?**  Include the expected endpoint (eg after 6 litters) or unexpected circumstances requiring an animal to be euthanised (eg infertility, failure to produce a litter, sickness, injury) |
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| **Fate of animals/method of humane killing** | |
| **27a** | **What will happen to the breeding animals or excess stock at the end of their time on the program?**  **Could any animals be rehomed or released?** |
|  |
| **27b** | **If animals are to be euthanised as part of the project or because they are seriously injured, how will this be done, where will it take place and who will carry this out?**  Include details of the agent used, concentrations, dose, route of administration  (Refer to the AEC Policy and Guidelines for the Humane Killing of animals use for scientific purposes for acceptable methods)  OR  Provide or refer to an SOP containing the above details (provide a link or SOP reference below) |
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| **27c** | **Could animal tissues be shared with other investigators to replace the use of living animals in their work?** (Replacement) |
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**JAMES COOK UNIVERSITY**

**ANIMAL ETHICS COMMITTEE**

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| ANIMAL ETHICS NUMBER  *(Office Use ONLY)* | A |

**AEC MONITOR’S REPORT**

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| --- | --- | --- | --- | --- | --- |
| **AEC Application Title:** |  | | | | |
| **Principal Investigator:** |  | | | | |
| **General Comments:** | | | | | |
| **Part 1 – Administration and Compliance:** | | | | | |
| **Part 2 – Justification:** | | | | | |
| **Part 3 – Animal Housing, Care and Husbandry:** | | | | | |
| **Part 4 – Methods and Experimental Design:** | | | | | |
| **Part 5 – Personnel and Declarations:** | | | | | |
| **Please indicate your recommendation:** | | | | **Yes** | **No** |
| This application **requires the above issues to be addressed** before it can go to the AEC | | | |  |  |
| This application should be **approved:** | | | |  |  |
| This application should be **approved with the following comments, provisions and/or reservations:** | | | |  |  |
| This application should **not be approved** for the reasons listed above: | | | |  |  |
| Monitor Name |  | Review Date |  | | |

**PART 5 – DECLARATIONS**

**28 Principal Investigator/Academic Supervisor Declaration:**

|  |  |  |
| --- | --- | --- |
| I declare that:   1. I will provide adequate project supervision, ensure animal health and wellbeing and oversee the conduct of all staff participating in the project such that I will take overall responsibility for all aspects of the conduct of the project; 2. Adequate resources are available for the conduct of the project; 3. I have read the most recent Australian Code of Practice for the Care and Use of Animals for Scientific Purposes and the Animal Care and Protection Act and Regulation. I am aware of and agree to meet the responsibilities set out in these documents; 4. All staff involved in this project have been read this application and appropriate legislation and Code and agreed to meet their responsibilities and directions from the AEC; 5. I will ensure that the scope of monitoring the wellbeing of the animals at all stages of their care and use in the project is clearly outlined and communicated to all parties; 6. I undertake to inform the AEC of any changes to the proposed procedures or details given in this form subsequent to its submission (including change of contact details) by submitting an Amendment Application; 7. I agree to submit the mandatory Animal Ethics Report that will be forwarded to me annually and provide a final report upon completion of the project; 8. This project complies with the policy on Animal Research Ethics within James Cook University; 9. The purpose of this project cannot be achieved by alternatives to the use of animals. | | |
| Name - Principal Investigator OR student’s supervisor) | Signature | Date |
| Name – Academic Supervisor (if PI is a student) | Signature | Date |
| If the Principal Investigator/Supervisor named above is not affiliated with JCU, provide the QLD Animal Research Registration number: | |  |

**29 Co-investigator Declaration** (Add more rows if necessary)

Please note that if it is not possible to get all signatures on the one document, we will accept signatures on multiple copies of this page.

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Title** | |  | |
| I declare that:   1. **I have been provided with and read this AEC Application and all referenced SOPs and agree to my role in this project**. 2. My experience outlined in Question 3 above is true and correct. 3. I have read the most recent *Australian Code of Practice for the Care and Use of Animals* for Scientific Purposes and the *Animal Care and Protection Act* and *Regulation*. I am aware of and agree to meet the responsibilities set out in these documents; 4. I will ensure that the scope of monitoring the wellbeing of the animals at all stages of their care and use in the project is clearly outlined and communicated to all parties; 5. I undertake to inform the Principal Investigator of any changes to the proposed procedures or details given in this form subsequent to its submission (including change of contact details) by submitting an Amendment Application; 6. I will notify the Principal Investigator immediately if any Unexpected Adverse Events occur. | | | |
|  | **Name** | | **Signature** |
| **1** |  | |  |
| **2** |  | |  |
| **3** |  | |  |
| **4** |  | |  |
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**30 Facility Manager Signature**

|  |  |  |
| --- | --- | --- |
| 1. I have received and reviewed the application and agree that we have the resources available to conduct the project in this facility | | |
|  | **Name** | **Signature** |
| **1** |  |  |

**31 Dean of College/Delegate**

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| --- | --- | --- |
| I declare that:   1. I have read the application. 2. I am satisfied that the use of animals is justified on scientific grounds 3. I am satisfied the investigators have the appropriate authority from the organisation, qualifications, experience and resources to carry out this project and meet their responsibilities under the Animal Care and Protection Act and the Code. | | |
|  | | |
| Name | Signature | Date |

**APPENDIX 1 - DETAILS OF ANIMALS TO BE USED:**

**Please read the lists below to determine the category and purpose of use for the animals in your project. One category and one purpose must be completed for each group of animals. (If animals are subject to different categories of procedure simultaneously, please indicate the highest impact category for the activity.)**

Category of Procedure: **The procedure categories are intended to give some indication of the impact to which the animal is subjected. With this in mind, use the brief guide and the examples given to help categorise the procedure. The guide is ONLY a guide and does not exclude otherwise unlisted procedures which you judge (and the AEC judge) to have a similar level of impact.**

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| **Cat.** | **Description** | **Examples** |
| **1** | **Observational studies involving minor interference**  Animals are not interacted with or, where there is interaction, it would not be expected to compromise the animal’s welfare any more than normal handling feeding etc. There is no pain or suffering involved | Observational study only such as photographing whales at close quarters; Breeding or reproductive study with no detriment to the animal; Behavioural study with minor environmental manipulation |
| **2** | **Animal unconscious without recovery** Animal is rendered unconscious under controlled circumstances (i.e. not in a field situation) with as little pain or distress as possible. Capture methods are not required. Any pain is minor and brief and does not require analgesia. Procedures are carried out on the unconscious animal that is then killed without regaining consciousness | No experimentation on living animals eg animals killed painlessly for dissection, biochemical analysis, in vitro cell culture, tissue or organ studies; Teaching surgical techniques on live, anaesthetised animals which are not allowed to recover following the procedure |
| **3** | **Minor conscious intervention without anaesthesia** Animal is subjected to minor procedures that would normally not require anaesthesia or analgesia. Any pain is minor and analgesia usually unnecessary, although some distress may occur as a result of trapping or handling | Injections, blood sampling in conscious animals;  Minor dietary or environmental deprivation or manipulation, such as feeding nutrient-deficient diets for short periods; Trapping and release as used in species impact studies; Trapping and humane euthanasia for collection of specimens |
| **4** | **Minor operative procedures with recovery** Animal may be rendered unconscious with as little pain or distress as possible. A minor procedure such as cannulation or skin biopsy is carried out and the animal allowed to recover. Depending on the procedure, pain may be minor or moderate and post-operative analgesia may be appropriate. Field capture using chemical restraint methods is also included here | Biopsies  Cannulations  Sedation/anaesthesia for relocation, examination or injections/blood sampling |
| **5** | **Surgery with recovery** Animal may be rendered unconscious with as little pain or distress as possible. A major procedure such as abdominal or orthopaedic surgery is carried out and the animal allowed to recover. Postoperative pain is usually considerable and at a level requiring analgesia. | Orthopaedic surgery  Abdominal or thoracic surgery |
| **6** | **Minor physiological challenge** Animal remains conscious for some or all of the procedure. There is interference with the animal’s physiological or psychological processes. The challenge may cause only a small degree of pain/distress or any pain/distress is quickly and effectively alleviated. | Minor infection, minor or moderate phenotypic modification, early oncogenesis  Polyclonal antibody production  Antiserum production |
| **7** | **Major physiological challenge** Animal remains conscious for some or all of the procedure. There is interference with the animal’s physiological or psychological processes. The challenge causes a moderate or large degree of pain/distress that is not quickly or effectively alleviated. | Major infection, major phenotypic modification, oncogenesis with pain alleviation  Isolation or environmental deprivation for extended periods  Monoclonal antibody raising in mice |
| **8** | **Qld DPI Approved ONLY– LD 50; Death as an endpoint** This category only applies in those rare cases where the death of the animal is a planned part of the procedure. NB Under the Act, there are restrictions placed on lethality studies such as LD50 tests or similar. Investigators must apply to the DPI & F director-General to carry out such tests, gain AEC approval and pay a fee of $500 before the activity can proceed. (Where predictive signs of death have been determined and euthanasia is carried out before significant suffering occurs, category 6 or 7 applies.)  **Death as an end point does not include: death by natural causes; animals which are euthanised on completion of the project; animals which are killed if something goes wrong; animals killed for dissection or for use as museum voucher specimens; or accidental deaths.** | Lethality testing (LD50, LC50)  Toxicity testing with death as a planned end point without euthanasia. |

**Scientific Purposes for which the Animals will be Used**

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| --- | --- | --- |
| **Cat.** | **Description** | **Examples** |
| **1** | **The Understanding of Human or Animal Biology**  Using animals for activities that aim to increase the basic understanding of the structure, function and behaviour of animals and humans, and processes involved in physiology, biochemistry and pathology | Molecular biology studies, studies of hormone levels for reproductive physiology |
| **2** | **The Maintenance and Improvement of Human or Animal Health and Welfare**  Activities that aim to produce improvements in the health and welfare of animals, including humans. | Animals used to develop a new diagnostic test for a disease; Development of a painless method of spaying cattle; Developing a new vaccine for animals or humans; Production of biological products such as anti-sera, hormones and antibodies |
| **3** | **The Improvement of Animal Management or Production**  Activities that aim to produce improvements in domestic or captive animal management or production. | Developing an improved molasses/urea based supplement for cattle; Determining optimum stocking rate for a pasture; Evaluation of a calcium supplement for layer hens |
| **4** | **The Achievement of Educational Objectives**  Activities carried out for the achievement of educational objectives. The purpose of the activity is not to acquire new knowledge, rather to pass on established knowledge to others. This would include interactive or demonstration classes in methods of animal husbandry, management, examination and treatment. | Animals used by veterinary schools to teach examination procedures such as pregnancy diagnosis or artificial insemination; Sheep used in shearing demonstration classes for students; Dogs used to teach animal care to TAFE students; Rats and toads used in schools for dissection classes; Animals used in agricultural colleges or schools to teach routine husbandry procedures |
| **5** | **Environmental Study**  Activities that aim to increase the understanding of the animal’s environment or its role in it, or aim to manage wild or feral populations. These will include studies to determine population levels and diversity and may involve techniques such as collection of voucher specimens, radio tracking or capture and release. | Fauna surveys for environmental impact studies; Research into methods to control feral animals |
| **DPI & F Protocol AE P4** [**http://www.dpi.qld.gov.au/extra/word/aniamlwelfare/protocolaep4.doc**](http://www.dpi.qld.gov.au/extra/word/aniamlwelfare/protocolaep4.doc) | | |