POLICIES AND PROCEDURES



Code of Ethical Conduct – Animals for Research, Testing, and Teaching

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1. Introduction/Background on the Activities of the Organisation

1.1. Organisational Activities

This Code is designed to comply with all the requirements of the Animal Welfare Act 1999 (the Act) so that specified animals can be used in research, testing and teaching activities of Lincoln University and other institutions or individuals whose activities may be approved under this Code. The predominant animals held by Lincoln University are sheep, cattle and deer, but facilities exist for the housing of laboratory rodents and other small mammals (e.g., possums, mustelids). These animals provide the basis of research material in husbandry, anatomy, physiology, biochemistry, immunology, toxicology and genetics. The teaching programmes cover the same areas. Research by parented organisations may involve clinical trials on various animal remedies and dietary supplements in farm animals or tests of control formulations for pest animals. Research, testing and teaching activities associated with environmental conservation and wildlife management involve manipulations of wild and feral animals, both indigenous and exotic, and some of this work is conducted in remote locations.

1.2. Treaty of Waitangi Obligations and Principles

Lincoln University is legally bound to acknowledge the principles of the Treaty of Waitangi in the performance of its functions and the exercise of its powers (S 281(1)(b), Education and Training Act 2020 (New Zealand Legislation website). Organisations that are parented by the Lincoln University Animal Ethics Committee (AEC) must also abide by this.

It is the responsibility of the researcher to be aware of when they should conduct consultation with Māori regarding their research. If in doubt, the researcher should speak with the Deputy Vice-Chancellor Māori and Pasifika. Consultation with Māori should be discussed through the Deputy Vice-Chancellor Māori & Pasifika.

1.3. RTT and the Three Rs

Lincoln University is committed to the conduct of research, testing and teaching that involves use of animals within the philosophy of "the Three Rs": reduction, refinement, replacement. Lincoln University is committed to reducing the number of animals manipulated while still ensuring scientific rigour; to refine manipulation techniques with the aim of minimising harm to animals and maximising benefits to humans, animals or ecosystems; and to replace animal models in research by substituting them, where appropriate, with non-sentient or non-living alternatives.

1.4. Responsible Persons

The Vice-Chancellor of Lincoln University is responsible for administering and implementing the Code of Ethical Conduct for the use of animals (Code) at the University and in parented external parties. The Vice-Chancellor delegates these responsibilities to the Animal Ethics Committee.

1.5. Persons/Organisations under the CEC

All staff of Lincoln University and its students, both undergraduate and postgraduate plus staff of external parties parented under this Code, are deemed as persons to whom the Code applies.

2. Establishment, Functions, Powers and Membership of the Animal Ethics Committee

2.1 Functions, duties and powers of the Committee

The Lincoln University Animal Ethics Committee (AEC) provides oversight of all University and parented organisation activities conducted under Part 6 of the Act. The AEC will have the following functions:

- to consider and determine on behalf of the code holder applications for projects;
- to consider and determine, under appropriate sections of the Act, applications for projects;
- to set, vary, and revoke conditions of project approvals;
- to monitor compliance with conditions of project approvals;
- to monitor animal management practices and facilities to ensure compliance with the terms of this Code;
- to consider and determine applications for the renewal of project approvals;
- to review and approve amendments to approved projects;
- to suspend or revoke, where necessary, project approvals;
- examination of the opportunities for application of the 3Rs;
- approving and monitoring adherence to SOPs
- to recommend amendments to this Code to the code holder.

The AEC will have such powers as are reasonably necessary to enable it to carry out its functions. The AEC or its nominee has the power to inspect animals, their accommodation, and related management records at any time to satisfy the AEC that approved procedures are carried out properly.

- **a.** Audits of project implementation may be undertaken in respect of particular projects about which the AEC has been given cause for concern;
- **b.** the AEC will have the right to solicit opinions from staff and students about the implementation of a protocol in the process of undertaking an audit;
- c. where the AEC has reason to believe that projects involving animals are being or have been undertaken without first having been approved by the AEC, the Chairperson of the AEC will consult with the relevant facility manager and Head of School prior to engaging in an investigation. If an investigation is embarked upon, the Applicant will be notified about the concerns of the AEC and will be provided with an opportunity to make representations to the AEC;
- d. where audit work by the AEC uncovers ethically unacceptable conduct on the part of researchers and teachers using animals, reports of such findings will be submitted to both the Vice-Chancellor and the relevant Head of School. In such a case, the Applicant will be notified about the concerns of the AEC and will be provided with an opportunity to make representations to the AEC;
- e. though the AEC may uncover ethically unacceptable conduct through its audit activities and submit reports on its findings, it is not responsible for instituting any disciplinary action against the parties responsible for the conduct; any disciplinary actions will follow the policy and procedures outlined in The Lincoln University Disciplinary Policy and Procedure document (current version).
- f. the Chairperson and the Coordinator of the AEC have the authority of the Vice-Chancellor to terminate any animal experimentation involving ethically unacceptable conduct.

2.2 Membership of the AEC

The AEC will consist of up to ten members appointed by the Vice-Chancellor including four statutory members and up to six other members appointed by the code holder.

2.3 Statutory members

- A senior representative of Lincoln University appointed by the code holder, who is qualified to evaluate applications;
- A veterinarian nominated by the New Zealand Veterinary Association (NZVA) who
 is not employed by or associated with Lincoln University
- A person nominated by an approved animal welfare organisation (the Royal New Zealand Society for the Prevention of Cruelty to Animals (RNZSPCA)), who is not employed by or associated with Lincoln University, or involved in the use of animals for research, testing or teaching;
- A person nominated by Selwyn District Council, not employed by or associated with Lincoln University, or associated with the scientific community or an animal welfare agency;

2.4 Organisational members

- up to two members of the staff of Lincoln University with experience in animal science and/or design of animal experiments capable of evaluating project proposals
- a student who is nominated by the Lincoln University Students Association (LUSA)
 may be co-opted from time to time following a mutual request from the ViceChancellor and LUSA.
- a veterinarian contracted by Lincoln University with full voting rights;
- an employee or contractor of the University to act as the Coordinator;
- a member or a nominee of the Lincoln University Council;

2.5 Remuneration of external members

Remuneration of external members will be on a per meeting attended basis, will include reasonable travel costs, and will be a sum of money to be determined by the Vice-Chancellor and reviewed annually. Remuneration will include virtual attendance at meetings.

2.6 Appointment Procedures

- **2.6.1** The Vice-Chancellor will appoint, on the recommendation of the AEC, one of the internal members (who is not a Lincoln University Council member) as Chairperson. The AEC will appoint a Deputy Chairperson (who is not a LU Council member) as and when necessary.
- 2.6.2 An AEC Co-ordinator will be appointed as a member by the Research Management Office of the University. The duties of the AEC Co-ordinator will include: co-ordinating implementation of the Code (especially processing of applications for ethical approval), assisting the Chairperson and Secretary with management of AEC business and correspondence, compilation of Annual Animal Usage Statistics and Standard Operating Procedures, and managing compliance monitoring and staff training.
- 2.6.3 The Research Management Office of the University will appoint a Secretary who will maintain a database and records of all cases considered by the AEC, distribute copies of papers for meetings and applications for ethical approval to the AEC, prepare and circulate agendas, take minutes of meetings of the AEC, handle requests for AEC publications and documents, and general

correspondence associated with the work of the AEC. The Secretary is not a member of the AEC.

- **2.6.4** Any committee member who resigns will be replaced as soon as possible so that full membership of the AEC is maintained.
- **2.6.5** Reappointments will be managed by the Research Management Office of the University.

2.7 Term of appointment

The membership term will be three years and may be renewed. In the case of external members this will require formal notification from the relevant nominating body.

2.8 Induction and Training of New Members

Members of the AEC will be provided with training and information. The training will be in the form of workshops and informal briefings, and the information will be in the form of Standard Operating Procedures and newsletters. In addition, National Animal Ethics Advisory Committee (NAEAC) induction packs will be supplied to new members and newsletters and informative circulars distributed by NAEAC, the Ministry for Primary Industries (MPI) and the Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) will be distributed to the AEC membership.

2.9 Vacancies

Any committee member who resigns will be replaced as soon as possible so that full membership of the AEC is maintained. Any committee member who has a protracted absence of three consecutive meetings during their term of membership may be replaced so that full membership of the AEC is maintained.

3 AEC Processes

3.1 AEC meetings

The main business of each meeting is to provide a forum for the AEC to fulfil its functions under the Act (Section 2.1). This will include consideration of correspondence, review of applications to the AEC and to provide or decline formal approval of these, consideration of amendments to previously approved applications, acknowledgement, consideration and approval of reports, and discussion of items of general business (e.g., monitoring reports, consideration of Standard Operating Procedures).

3.2 Frequency of Meetings

- There will be at least five scheduled meetings per annum.
- A schedule of meetings for the following calendar year shall be posted near the end of each year.

3.3 Timing for Circulation of Agenda Items

- Meetings are organised by the Secretary;
- The Secretary will set and distribute the agenda;
- AEC applications and all other appropriate information will be distributed by electronic mail to AEC members;
- Documents will be circulated at least five working days before the date of a scheduled meeting;

 The Secretary will record minutes and maintain them in electronic storage that is protected by password.

3.4 Quorum

A quorum will be 50% of members plus one, of which at least two will be statutory external members.

3.5 Decision Process

Decisions will be reached when all members present at the meetings have had the opportunity to express their views. Decision making is by consensus and when consensus cannot be reached the application will be declined and returned to the applicant for reconsideration of the concerns raised. The applicant will then have the opportunity to respond in writing to these concerns or resubmit a revised application.

3.6 Effective Input of Committee Members

External members of the AEC will receive appropriate training as in section 2.8 to ensure they provide effective input during meetings. Furthermore, the Chair will seek input from all members of the committee to ensure that all views are aired and considered before making a decision.

3.7 Establishment and Membership of Subcommittees

A subcommittee of members of the AEC may be established when items require consideration outside normal face-to-face meetings. Subcommittees will not be used for assessing new applications or major amendments to an application as these requests will always be considered by the full AEC at a scheduled meeting or special meeting if there is a legitimate requirement for urgency. A subcommittee will require at least one statutory external member and decisions will be reported back to the full committee for ratification.

3.8 Conflict of Interest

Where an AEC member has a conflict of interest in an application, they must disclose such interest and abstain from participation in the decision-making process for that application. A conflict of interest must be declared by the AEC member when the appropriate agenda point arises in a meeting. Where the Chair has the conflict of interest, then the Deputy Chair should assume the chair for the duration of the matter where conflict has been declared. This must be recorded in the minutes of the meeting as the first note with respect to that agenda item. The person in conflict may remain in the room and answer questions but shall have no voting rights for the application.

3.9 Confidentiality

All information provided to AEC members is treated in strict confidence. Members are required to sign a Confidentiality Agreement prior to commencement of AEC duties. Requests by members of the public are subject to the Official Information Act and referred to the Vice-Chancellor's Office and Registrar. Information requested shall be released under the Official Information Act but confidentiality maintained on the identity and contact details of applicants. Where commercially sensitive information is involved in applications, the AEC may request further details in confidence so that the review criteria set out in the Act can be met and the committee can reach a decision. Commercially sensitive information given in confidence may be released under the Official Information Act after consultation with the applicant.

3.10 Use of Tele/Video Conferencing

Meetings are held face-to-face. In the exceptional circumstance that a member is unable to be present in person, a video link may be used to enable their input to the meeting. The camera in the meeting and of the absent member must be turned on. Contributions by telephone will not be permitted. The Chairman will consult on each application and topic with members that are attending the conference virtually.

3.11 Consideration between Meetings

Circumstances may arise from time to time that call for special meetings when major amendments or applications arise under exceptional or urgent circumstances. These meetings will be announced and follow the procedures described here for scheduled meetings. Applications under exceptional or urgent circumstances may be examined by consensus decisions reached using electronic mail correspondence. Exceptional circumstances might include, but are not limited to, adverse events that require a change in protocol such as earthquake, fire or flood. Urgent applications could involve but are not limited to a unique opportunity to exploit an occurrence like a snow fall, a wave of flystrike in sheep or a whale beaching, or to accommodate unforeseen changes in teaching timetables. Other matters, including minor amendments to applications may be considered by the Co-ordinator between meetings (Section 4.7). Decisions will be recorded by the Secretary and ratified at the next meeting of the AEC.

3.12 Public Presence at Meetings

AEC meetings will not be open to the public.

3.13 Applicant Presence at Meetings

In some cases, on their or the AEC's request, applicants may be given the opportunity to attend part of an AEC meeting to provide information about their application. In such situations the applicant will be asked to leave the meeting prior to the final deliberation of the committee.

3.14 Secretarial Support

Secretarial support to the AEC is provided by the Lincoln University Research Management Office. This role in respect of AEC matters is described in Section 2.7.3. (above).

3.15 Record Keeping and Information Management

AEC documentation shall be maintained in order to meet the requirements of the Act. The Code and any amendments, SOPs, application forms and reporting forms will be freely available to staff and parented organisations from an electronic site. All minutes of meetings, appointment of members, project applications, project approvals, project reports, project amendments, AEC notifications, project and procedure monitoring, site visits and a complaints log will be stored in electronic form (password protected) by the Secretary. Any physical records may be held as hard copy by the Secretary in a locked cabinet in the Research Management Office. Access by committee members to any records will be managed on the basis of reasonable request to the Secretary. These records are kept for a minimum of 10 years after which they will be destroyed.

3.16 Reporting of Animal Use Statistics to MPI

The annual return of statistics on animal use and impact of use will be forwarded to MPI each year by 28 February as required. This task is carried out by the Secretary and checked and actioned by the AEC Co-ordinator – see Section 2.7.2 (above).

3.17 Protection of AEC Members

No member of the AEC is personally liable for any act done or omitted by the member or the committee in good faith in the course of the operations of the committee.

3.18 Process to amend the Code

Amendments to the Code, if required, will be recommended by the AEC to the Vice-Chancellor at the time of each 5-year review of the Code. Following acceptance by MPI the revised Code will be communicated to all Lincoln University staff and students and to parented organisations from the Secretary. At other times minor amendment(s) may be required and MPI must be notified. MPI approval must be sought for major changes.

4 Consideration of Applications by the AEC

4.1 Criteria for Consideration

In considering any application for the approval of a project (which must be made on the AEC Application Form) and in setting, varying, or revoking conditions of the approval of a project, the AEC must have regard to the following matters that are set out in section 100 of the Act and are subject to legal obligation.

These are:

- any matters that the Committee is required to consider by regulations made under the Act; and
- · the scientific or educational objectives of the project; and
- the harm to, or the distress felt by, the animals as a result of the manipulation, and the extent to which that harm or distress can be alleviated by any means (including, where the pain or distress cannot be held within reasonable levels, the abandonment of the manipulation or the humane destruction of animals); and
- whether the design of the experiment or demonstration is such that it is reasonable to expect that the objectives of the experiment or demonstration will be met; and
- the factors that have been taken into account including consideration of sentience in the choice of animal species; and
- whether the number of animals to be used is the minimum necessary to ensure a meaningful interpretation of the findings and the statistical validity of the findings; and
- whether adequate measures will be taken to ensure the general health and welfare of animals before, during, and after manipulation; and
- whether suitably qualified persons will be engaged in undertaking the research, testing, or teaching; and
- whether manipulations are to be carried out by compliance approved personnel
- whether any duplication of a previous experiment is proposed and, if so, whether any such duplication will be undertaken only if the original experiment –
 - (i) is flawed in a way that was not able to be predicted;
 - (ii) or needs to be duplicated for the purpose of confirming a result that was unexpected or has far-reaching implications; and
- whether the same animals are to be used repeatedly in successive projects on the welfare of the animals, and, if so, the cumulative effect of the successive projects on the welfare of the animals; and
- whether there is a commitment to ensuring that findings of any experiment will be adequately used, promoted, or published; and

- where relevant: the potential for experiments and manipulations to cause compassion fatigue in animal care personnel, investigators, and students, that might impact on the welfare of the animals under care; and
- any other matters that the AEC considers relevant.

In addition, the Lincoln University AEC requires the following conditions to be met:

- the proposed use of animals is defendable and there are no practical alternative approaches which avoid the use of animals, yet achieve the same goal;
- teaching is a prime function of Lincoln University. Any application for use of animals
 for undergraduate or sub-degree courses must be made each year by the examiner
 of the course and shall consider whether the benefits outweigh the welfare costs and
 their contribution to learning outcomes;
- graduate education is an essential role of Lincoln University. Any application for use
 of animals for research towards a dissertation or thesis must be made by the
 supervisor and shall be considered with respect to both educational and research
 objectives;
- all animals must have been lawfully acquired, the source of animal must be appropriate for the proposed use, and the responsibility for maintaining records to this end rests with the Applicant. Where possible, animals that have been specifically bred for research, testing and teaching should be used. Where transportation of such animals is necessary, care must be taken to minimise distress and to provide safety and comfort during transport;
- details of where and how the animals are to be housed, who is to care for them, who
 is to perform any manipulations, and who has primary responsibility for the care and
 for the research, testing or teaching must be provided. Facilities must be adequate
 to allow for the general health and welfare of the animals at all times, and personnel
 must have the appropriate training and expertise to care for the animals and to
 perform the manipulations;
- the fate of each animal at the end of the research or teaching must always be stated.
 If it is to be destroyed, either as part of the manipulation or subsequently, the means of euthanasia and the personnel involved must be approved. The means of euthanasia and disposal must comply with methods considered to be humane and generally in accord with standard practice;
- during surgical procedures and the pre- and post-operative periods, appropriate
 analgesics and anaesthetics must be used to eliminate sensitivity to pain. Where
 recovery from anaesthesia is not intended, the animal must be killed in a humane
 way at the conclusion of the experiment;
- the use of a neuromuscular blocking agent without concurrent use of an anaesthetic is not approved;
- the Applicant must send a completed Project Completion Form to the AEC on completion of the animal manipulations;
- the Applicant must send a completed Final Report Form to the AEC on the specified date of completion for the project;
- the AEC will review all submitted Project Completion Forms and Final Report Forms to check that they are satisfactory and will regard failure to supply adequate reports as breaches of this Code.

4.2 Impact Grading

The impact of an experimental manipulation on an animal must be assessed according to the guidelines prepared by MPI (https://www.mpi.govt.nz/dmsdocument/1477-Animal-Use-Statistics-Guidance-for-Completing-Statistical-Returns). These are briefly outlined here but applicants, the AEC and those reporting should consult more detailed definitions. The level of impact intended during experimental design must be considered and where the level could easily increase applicants should consider higher gradings. Applicant assessment of the level of suffering can be rejected by the AEC and a different level nominated.

Grade E – "Very high impact". Manipulations of high impact and long duration or very high impact for any duration

Such impacts include marked and repeated application of noxious stimuli or restraint for long periods where escape is not possible. Studies of methods to kill pests, and of infectious or toxic agents with a protracted death and marked distress or rapid death with severe distress, and cutting sensory or motor nerves where self-mutilation injury results, are considered very high impact. Exposure of conscious animals to lethal extremes of temperature or barometric pressure, or major surgery or induced pain without anaesthesia to test analgesics.

Grade D – "High impact". Includes manipulations of moderate impact and long duration or high impact and short duration.

High impact includes application of marked and repeated noxious stimuli from which escape is impossible, prolonged periods of physical restraint and marked alteration of motor function to test behaviour. Severe facial eczema, severe diarrhoea, severe pneumonia or protracted or irreversible homeostatic capacity by pharmacological or surgical means are considered high impact. Recovery from surgery without analgesia, cutting sensory or motor nerves that serve large areas of the body, lesions to the brain with intervention before collapse are considered high impact, as are infectious agents or toxins that cause protracted death with minor distress or rapid death with moderate distress are high impact. Prolonged exposure to severe cold or heat that leads to thermoregulatory failure and collapse is considered high impact. Severe restrictions on water or feed intake are high impact as are dietary induction of pregnancy toxaemia in sheep, ketosis in dairy cattle, advanced signs of nutrient deficiency, excess or toxicity. Marked social or environmental deprivation, long term housing and restraint of wild animals after capture that have a marked flight response.

Grade C – "Moderate impact". Includes manipulations of minor impact and long duration or moderate impact and short duration.

Where animals are held in medium to long term restraint, for example ruminants in a metabolism crate that may induce stereotypic behaviours or changes in social group. Live vaccines, clinical parasitism, moderate surgical or pharmacological modification of homeostatic capacity such as removal of endocrine glands may be considered moderate impact. Physical conditions that cause chronic lameness, or infectious or toxic agents that cause rapid death without distress may be considered moderate impact. Simulation of feed intake restriction by pregnant or lactating ruminants in cold winters or drought or feeding unbalanced or excessive diets that may induce mild deficiency or excess of essential nutrients. Short term exposure to extreme heat or cold may have moderate impact provided it does not lead to collapse of thermoregulation. Surgical procedures on conscious animals with local anaesthetic and systemic analgesia and recovery from thoracotomy, hysterectomy with effective analgesia. Moderate impact may include movement of excitable livestock or wild animals with a marked flight response or moderate restriction of food or water beyond normal satiation.

Grade B – "Little impact". Manipulations of minor impact and short duration.

Where animals may be subjected to mild or short-term physical restraint, yarding or housing or unnatural surroundings. Examples may include vaccine testing, subclinical parasitism, minor surgical wounds or physical conditions that cause transient lameness or mild sores or abrasions. Exposure to temperature or pressure environments may be considered little impact, if they do not have lasting effects. Restricted food or water intake within the tolerance of the species may be implemented but without lasting signs of deficiency or toxicity that might have lasting effects with longer exposure. Blood sampling, skin tests with low-level irritation or experiments on anaesthetised animals that do not regain consciousness.

Grade A – "No impact or virtually no impact"

Where animals can express their natural behaviour in a wild or feral existence, or a field study for domesticated animals. Where animals are not subjected to disease, environmental or mental challenges and have appropriate amounts of food and water.

4.3 Outcomes after Consideration

- Depending on the individual circumstances of such deliberations, either the Chairperson or the Secretary or the Co-Ordinator will write to the Applicant outlining the views of or questions raised by the AEC;
- Outcomes may include 'declined', 'changes requested', approved with conditions or approved;
- If members of the AEC reach a consensus, an authority giving approval will be sent electronically to the Applicant within 7 days of the date of the meeting;
- The AEC, upon receipt of additional information may rescind its approval for a protocol in accordance with procedures set out in section 4.4 (below).
- In the case of the AEC having grounds for rescinding an application previously approved at an earlier meeting of the AEC or approved with conditions in accordance with Section 4.6, the authority will become invalid and termination will occur. Any project included in such an application which is underway at that time will cease immediately and remedial steps, if necessary, will be instituted immediately. This will apply indefinitely or until such time as any conditions required by the AEC have been met to the satisfaction of the Co-ordinator and the authority has been reinstated or approved;
- Where members of the committee do not agree about the suitability of an application for ethical approval, and consensus (see 2.14) is not achieved then the application will be referred to the Secretary to be added to the agenda of the next meeting of the AEC. On some occasions the Applicant may be invited to the meeting. The Secretary will advise the Applicant that the application has not proved straightforward to assess and of the date of the meeting at which it will be considered by the AEC. Where the timelines threaten the viability of the project, Applicants may appeal to the Coordinator for consideration under urgency and discuss the aspects of the application that have proved controversial among members of the AEC. In the light of such discussions the Applicant will be free to withdraw the application and submit a revised one;
- The AEC may make such enquiries as are necessary for the purposes of assessing and making a decision upon any application. Enquiries may be made with any person outside the AEC and some disclosure of information received from the Applicant and from third parties may be required for that purpose. Disclosure of such information will be subject to an obligation of confidence.

4.4 Conditions of Approval

Approval is limited to the project design and manipulations outlined in the application which have been approved by the AEC. Any conditions associated with the approval will be communicated in writing to the applicant when conditional approval is granted. These conditions may include maximum endpoints for suffering which must not be exceeded, or the provision of additional information which must be provided by a date specified. Failure of the applicant to satisfy any stated conditions will result in the approval being rescinded.

4.5 Maximum Approval Period

- Projects may be approved for the period of time specified by the Applicant as the
 duration of the animal manipulations, or for a maximum period of three years. At the
 end of three years a new application must be made to the AEC. Where amendments
 are submitted (Section 4.7), approval for these will not extend for more than three
 years from the start date of the original application and a new application will be
 required.
- Applications for undergraduate teaching will be for a maximum of 1 year.

4.6 Power to Suspend, Revoke and Vary Approvals

- The Chairperson and Coordinator of the AEC are each authorised by the Vice-Chancellor to immediately terminate any animal experimentation being undertaken by Lincoln University staff or students and any work undertaken by other organisations/individuals that has been approved by the AEC;
- formal written confirmation of termination will be delivered within 24 hours of termination to the person responsible for the experiment by the Chairperson or the Coordinator of the AEC;
- failure by any individual to provide completed Project Completion Forms or Final Reports after two written requests from the Chairperson or the Coordinator of AEC will be considered a breach of this Code and result in the AEC, the Lincoln University Research Committee and the Vice-Chancellor being notified;
- projects may be suspended until the reason for doing so is resolved or the approval may be revoked if no satisfactory resolution is delivered within a period specified by the Chairperson; and
- in the event of termination or failure to produce completed forms/reports, the AEC has the right to decline future applications or withhold the outcome of the committee decision.

4.7 Changes to Approved Applications

Amendments to applications must be provided to the Secretary by email or by a document attached to an email (Ethics@lincoln.ac.nz). This will be forwarded to the Coordinator who may approve minor amendments. Minor amendments might include, but are not limited to, a reduction in number of animals, a change in personnel or a change in measuring appliance like ear tag sensors, a change in start date, or location without major departure from the original project design. In some cases, the Coordinator will request further information or a new application and may promote any amendment to be considered by the full AEC. Major amendments will be considered by the full AEC. Major amendments might include such things as an increase in animal numbers, project design or any change in impact grading.

Where there is no change to any of the procedures, extensions may be permitted for up to three years from the original start date, after which a new application is required.

5 Responsibilities under AEC Approved Applications

5.1 Compliance

5.1.1 Project Reporting

No research, testing, or teaching, on or off campus, using live animals as specified in the Act may be carried out by any staff or student member of Lincoln University or of a parented organisation unless an application for such use has been approved by the AEC in accordance with this Code. The ongoing responsibilities of applicants will be clearly outlined on the application form requiring their signature. In all applications, the applicants must sign to indicate that they have read the Code. In the approval letter, applicants will be informed of the need to report animal use figures and to provide a final report to the AEC by the dates specified in the application. Additional interim reports back to the committee may be a condition of approval and will be communicated in the approval letter.

5.1.2 Compliance Reporting

Procedures and policies will be put in place to ensure that animal facilities and practices comply with all Acts of Parliament, regulations or bylaws pertaining to the care and treatment of animals, and that these are in accordance with good practice and scientific knowledge, such as that provided in the NAEAC's Good Practice Guide for the Use of Animals in Research, Testing and Teaching. Compliance with legislative requirements forms part of the AEC monitoring process and non-compliance will be dealt with as outlined in section 7.9. This will include proper maintenance of animals (provision of food and water, humane containment, adequate facilities for rest and sleep, opportunities to socialise with others of their species when appropriate) and training for those responsible for routine care (including husbandry, methods of restraint, recognising signs of ill health, and maintaining sanitary conditions).

5.2 Appropriate Qualifications

Animal manipulations approved by the AEC can only be conducted by or under the supervision of the personnel listed in the AEC Application Form, which must contain all their signatures. The specific tasks each one of these persons is able to perform must be listed in the AEC Application Form and must be specified on a Register of Competence. Such competencies must have been signed off by a suitably qualified person appointed by the AEC for this task and will remain valid for five years.

5.3 Sick and Injured Animals

Animals must be inspected regularly so that they can receive appropriate veterinary care as soon as such an intervention becomes necessary. Inspection would usually be daily but specific timeframes may vary dependent on the species involved and the severity of the manipulation and must be clearly outlined in the application. At remote sites and on less intensive experiments the AEC may approve longer periods between inspections. For experiments involving toxins or traps shorter periods may be enforced. The process of how adverse events of sick or injured animals will be dealt with needs to be clearly detailed in the AEC application, including maximum timelines between actions. If any animals are found to be sick or injured the area manager or farm manager or a veterinarian is to be notified immediately and any possible remedial actions are to be undertaken. If the animal does not recover within 24 hours of remedial action, then veterinarian advice must be sought. Lincoln University has contracted a veterinarian for consultation in urgency for the campus area and the university research farms. Parented organisations are responsible for securing the services of a veterinarian. If animals fail to recover from remedial actions or if advised by a veterinarian, then euthanasia may be necessary and must be performed humanely according to the approved SOP appropriate for the species. Sick or injured animals at remote sites should be humanely euthanised as soon as possible without contacting a veterinarian and such events should be outlined in the application.

5.4 Standard Operating Procedures

Standard operating procedures (SOPs) relating to specific procedures or manipulations, or to the care and use of animals will be submitted to the AEC for consideration and approval as they are developed. Once approved by the AEC they will be valid for five years and may be updated during that period. For the University these will be posted on the intranet for staff and students. SOPs may be submitted by, or requested from, parented organisations, though these will remain confidential to the parented organisation unless an agreement for wider distribution is reached.

5.5 Adverse Events

Adverse events are atypical incidents that occur to an animal as a result of the experimental manipulation, animal husbandry failures or disease. Where unexpected adverse events or outcomes occur during research, testing or teaching, rapid reporting is essential, primarily from the point of view of animal welfare. Anticipation of adverse events must be part of the trial design must be described in the application. Applicants should consider adverse weather events for outdoor experiments.

Adverse events arising during a project must be dealt with immediately and reported to the Manager of the facility immediately and, if possible, remedial action undertaken. If sick or injured animals result from the adverse event and veterinary intervention is required, this must occur within eight hours and procedures followed as in section 5.3. The AEC Chairperson or Co-ordinator must be notified within 24 hours using the adverse event form at the Animal Ethics electronic site. Reporting of the adverse events should be discussed at the subsequent meeting of the AEC. If the adverse event requires changes to an approved manipulation this must be communicated to the AEC, along with a request for an amendment as soon as possible. If the AEC believes that the adverse event was preventable, procedures may be reviewed and modified to preclude the same or similar event happening in future. These could range from additional observations, establishing responsive and preventative actions, through to termination of the project.

5.6 Record Keeping

The responsibility for maintaining project records rests with approval holder and must record numbers of animals used and grading of suffering.

5.7 Euthanasia for tissue collection/dissection

Euthanasia of animals for the purpose of tissue collection or dissection will require a full application to the AEC. Euthanasia will generally require the applicant to follow a SOP appropriate to the species unless tissue collection is from a commercial slaughter plant. The hunting and killing of an animal in a wild state for tissue collection will not require an approval unless an experimental method is used to kill it.

5.8 Rehoming

On some occasions, animals from experiments at Lincoln University or parented organisations may be rehomed. Pest animals such as possums, mustelids and hares will not be rehomed. Domestic animals and laboratory animals may be rehomed to suitable owners with adequate facilities and skill to look after them. The AEC encourages rehoming, where appropriate, and will consider this as part of the fate of the animals at the termination of the project. Responsibility for these animals is transferred to the new owners.

6 Animal Facilities

6.1 Management of Animal Facilities

6.1.1 Policies & Procedures

Applicants, the AEC and Lincoln University must ensure that all animal facilities are appropriately designed, constructed, equipped, staffed and maintained to ensure the health and welfare of animals and to fulfil scientific requirements in accordance with the NAEAC Good Practice Guide and relevant codes of welfare issued under the Act. The animal facilities of Lincoln University or parented organisations will be inspected at least yearly by either the Co-ordinator or a nominee of the AEC, which may include a third-party veterinarian. A written outcome of the inspection will be reported and discussed, where appropriate, in a full AEC meeting.

6.1.2 Emergency Management

In the event of an emergency (e.g., power outage, fire, earthquake, or flood), first priority is safety of humans. However, intervention is required, if at all possible, to maintain the safety and welfare of animals. Personnel should refer to the relevant document from Lincoln University Policies and Procedures entitled '*Procedures* surrounding *animal welfare post an emergency event (December 2009).*'

6.2 Development of SOPs for facility management

Where Lincoln University or parented organisations have facilities, these should be managed appropriately according to the species and type of confinement. SOPs may be used to dictate how cage and pen facilities will be managed, while industry standards may be more appropriate for extensive animal husbandry of domesticated livestock species.

6.3 Transportation of Animals

Where transportation of animals is necessary this must always be conducted by competent operators in suitable vehicles under humane and hygienic conditions. Care must be taken to minimise distress and to provide safety and comfort during the period of transportation. Unless the AEC has approved otherwise, all transport of animals must also align with the Code of Welfare for the Transport of Animals within New Zealand (https://www.mpi.govt.nz/dmsdocument/1407/direct).

6.4 Housing of Animals

6.4.1 Pens, Cages and Containers

The enclosure must be designed and managed to meet species-specific needs, unless otherwise signed off as part of an AEC approved project.

Consider the following, for each species held:

Sufficient space allocation:

- Population density within enclosures, and the placement of these in rooms should ensure that acceptable social and environmental conditions for the species are maintained.
- Single house animals only when appropriate for the species or if required by the experiment, e.g. during recovery from surgery or collection of samples.
- Wire floor cages for rodents should only be used when essential to the research protocol, and then only for brief periods.
- Cages with wire floors should include a resting area with a solid floor.
- Bedding (litter) should be appropriate to the species, comfortable, absorbent, dust-free, nonpalatable, non-toxic, able to be sterilised if required by the research project.

- Social interaction
- Opportunity to perform a species-specific behavioural repertoire
- Hiding/retiring zones
- · Appropriate environmental conditions
- Ready access to food and water

Nesting/sleeping areas:

- All animals should be routinely provided with bedding material so that they can rest in dry comfortable sleeping areas.
- Pregnant animals should be provided with nesting materials where appropriate.

Cleaning:

- Cleaning should be frequent enough to ensure a healthy environment, without creating unnecessary disturbance.
- Choice of detergents, disinfectants and pesticides should be made in consultation with investigators.
- Deodorants designed to mask odours must not be used in animal facilities. They are not an acceptable substitute for good cleaning practices and may interfere with breeding cycles and metabolic processes.
- Cleaning practices should be monitored regularly to ensure effective sanitation.

Methods:

- include visual inspection, monitoring water temperatures and microbiological testing of surfaces after cleaning.
- Spot cleaning should be used where appropriate.

6.4.2 Pens, Cages, Enclosure Requirements

Animal containers and enclosures must be:

- constructed of durable, impervious materials;
- kept clean;
- well maintained;
- secure and escape-proof;
- sized to allow animals to stretch out when recumbent and to stand upright and must:
 - protect the animals from climatic extremes;
 - prevent injury to the animals.

6.4.3 Farm Animals (Special Considerations)

As well the above criteria, the following points must be noted when housing farm animals:

- housing and management practices must meet the requirements of the code of welfare for the species concerned;
- material used for indoor facilities should be impervious to moisture, insects and vermin. Concrete and metal are the preferred building materials;
- pipes supplying drinking water should not be copper or galvanised;
- adequate trough space must be provided so all animals have access to feed and water supplies;
- any paint or sealer applied to wood where cleaning and disinfection is required must be non-toxic to livestock;

- floor (paved or concrete) surfaces should be 'textured' to prevent slipping;
- concrete is not suitable for areas where livestock stand for lengthy periods of time and should be covered with rubber matting or other suitable substrate such as wood chips;
- faecal material and urine should drain away or be cleaned away regularly to prevent animals standing in dirty areas;
- fencing must be maintained to prevent escape or injury;
- ruminants require a resting area either in a well-drained outside area or bedded shelter;
- plan how to manage ventilation, temperature, relative humidity, air velocity, moisture, dust, light, gas accumulation, odours, space and manure. These become increasingly important when large animals are housed indoors. Pens, cages, and containers must be designed, managed, cleaned, and maintained to ensure the comfort and well-being of animals unless otherwise approved.

6.5 Monitoring Animal Facilities

Animal facilities will be monitored by a nominee of the AEC or the AEC Co-ordinator. This will involve an inspection and written report at least once per year and whenever a new or previously unused facility is brought into operation. Facilities of parented organisations will be inspected during periods of time when they are conducting experiments, perhaps in conjunction with compliance inspections. Unscheduled monitoring may be carried out when the AEC has concerns about research, testing or teaching activities. A report will be lodged with the Secretary and repairs to facilities should be carried out within three months if required.

7 Monitoring

7.1 Monitoring during the Approval Period

Monitoring of projects during the progress of an approved experiment can be undertaken at any time. The AEC can inspect animals, accommodation, and experimental records to satisfy itself that approved procedures are properly carried out by appropriate personnel. This would normally be undertaken by the AEC Coordinator but other AEC members may be called upon.

7.2 Monitoring by Proxy

The AEC may require monitoring of a project or procedure within a project by a third party. For example, a veterinarian may be required to monitor a surgical procedure, or a member of a professional body or voluntary organisation may supervise animal handling. Monitoring will be followed by a written report to the AEC.

7.3 Frequency of Monitoring

Monitoring of projects by the AEC or a proxy will be conducted on projects according to the manipulation gradings below (Section 7.4 and 7.5). A visit report will be lodged with the AEC Secretary, either with respect to a project number or to a facility. The frequency of monitoring will depend on grading of the manipulations (Section 7.4 and 7.5). The applicant or facility manager will be notified in writing of any concerns raised and given a deadline by which the issue must be resolved. Reports and outcomes will be discussed by the AEC at the next full meeting.

7.4 Monitoring of Manipulations Grade A & B

Monitoring is a key function of the AEC. A minimum of 10% of approved projects with Manipulation Grade A or B shall be actively monitored with written reports provided to the AEC after the visit.

7.5 Monitoring of Manipulations Grade C-E

The AEC has the responsibility to oversee all applications that are graded at these levels. All approved projects with Manipulation Grade C, D or E must be monitored at least once, or every year for longer projects.

7.6 Specific Manipulations

The AEC may be confronted with new and novel manipulations for which there may be no precedent and therefore no SOP. In these cases, approval may require a veterinarian and/or a member of the AEC to be present during initial manipulations and for the committee to receive a report from the veterinarian. The AEC may request photographic or video images in such situations.

7.7 End of Approval Reporting

A Final Report Form which describes the scientific outcome of the project must be completed and provided to the AEC on or before the date specified on the approved application document. This should include any relevant details on the success of the project and areas for improvement or refinement which may add to the ability of the committee to assess future similar projects or manipulations.

7.8 End of Approval Grading

All investigators must provide a Project Completion Form to the AEC when the phase of the project involving manipulation of animals has ended, on or before the date specified on the approved application document. The Project Completion Form must specify how many animals experienced each Manipulation Grade (Section 5.8) during the project so this can be compared directly with the numbers originally proposed. The AEC reserves the right to adjust the grading attributed to animal suffering by the approval holder. All discrepancies between these numbers and the approved project will require an explanation on the Project Completion Form.

7.9 Compliance Breaches

7.9.1 Non-compliance with an AEC approval

Approval holders are required to report non-compliances to the AEC, by directly contacting the AEC Co-ordinator or Chair at the first practical opportunity. After non-compliances are reported, these will be investigated by the AEC as outlined in section 5.1.2. Reports stemming from the investigation will be presented and discussed at the next scheduled AEC meeting. Managers of approval holders will also be informed of the non-compliance. Approvals may be suspended or withdrawn until the issues that led to non-compliance are remedied and the AEC can be assured that a similar situation will not arise in the future.

7.9.2 Non-compliance with legislation or regulations (including non-compliance with this Code).

Non-compliance with this code will be subject to investigation by the AEC Co-ordinator or other AEC member and reported to the Vice-Chancellor. Any breach of the Act or other legislation or regulations will be referred to the appropriate compliance Authority.

7.10 End of Approval Statistics

The Project Completion Form (Section 7.8) must report planned numbers of animals to be used and those actually used. This must specify the source of the animals, the status of the animal (normal healthy, germ free, diseased, transgenic chimaera, protected species unborn or prehatched). It must also report whether the animal had been previously used or not, and the level of suffering according to MPI gradings (A to E) and animals whether destination of those dead (https://www.mpi.govt.nz/dmsdocument/1477-Animal-Use-Statistics-Guidance-for-Completing-Statistical-Returns). The Project Completion Form must be populated with planned numbers upon application and will be sent back to the applicant at the completion date of their project to complete number used. Discrepancies between the planned and used and the relevant categories must be explained. The AEC will use these reports to compile annual reports for MPI.

8 Arrangements for External Parties to Use the Code and AEC

The AEC will consider applications from external parties to use the Code and AEC (parenting arrangement). The AEC must ensure that its members are qualified to evaluate all projects submitted by a parented organisation. The AEC must be satisfied that the personnel who will manipulate animals on behalf of that parented organisation are appropriately qualified. If the Vice-Chancellor then approves a parenting arrangement, this will be enshrined in a formal written agreement by the Research Management Office. MPI will be notified in writing immediately by the AEC and before any research, testing or teaching with animals begins. The AEC will supply MPI the name of the person or organisation, postal and physical addresses of the parented organisation and contact details for the person to whom correspondence should be addressed. Thereafter, it is expected that the external party will abide by all provisions of the Code, including a process to review all relevant operating SOPs of the parented organisation, such as those used to manage animal facilities. The responsibilities for monitoring and oversight by the AEC described in the Code, apply equally to the parented organisations.

9 Complaints Procedures

<u>Note:</u> maximum penalties for individual and corporate offences against the Animal Welfare Act 1999, the Animal Welfare (Records and Statistics) Regulations 1999 and other legislation and regulations that apply to the use of animals for research, testing and teaching are included in the text of each Act and Regulation.

Complaints shall be addressed in writing in the first instance to the Secretary (Ethics@lincoln.ac.nz). Any complaints from members of the public, staff or students of Lincoln University, members of the AEC or applicants will be dealt with fairly and promptly. Any complaint received with respect to a parented organisation will be referred to the head of the organisation to investigate, unless it is that person toward whom the complaint is lodged, in which case it may be reported to the Director-General of MPI.

9.1 Animal Welfare Complaints

9.1.1 Complaints by the public

Animal welfare complaints made by members of the public will be investigated immediately and considered by the AEC at the next meeting, or earlier by electronic communication if this is deemed necessary, and the AEC will reach its decision by consensus (Section 2.14). Any decision will be reported to the complainant. If the decision is unacceptable to the complainant, they may take the matter to the Vice-Chancellor or to the head of a parented organisation as appropriate.

9.1.2 Complaints by employees

Animal welfare complaints made by employees of Lincoln University or staff of a parented organisation will be investigated immediately and considered by the AEC at the next meeting, or earlier by electronic communication if this is deemed necessary, and the AEC will reach its decision by consensus (Section 2.14). Any decision will be reported to the complainant. If the decision is unacceptable to the complainant, they may take the matter to the Vice-Chancellor or to the head of the parented organisation as appropriate.

9.1.3 Complaints by AEC Members

Where there are animal welfare complaints made by AEC members, staff members, staff members of a parented organisation or the public that concern the Chairperson or other members of the AEC, these shall be managed by the Vice-Chancellor acting on advice from an independent veterinarian or by the head of a parented organisation as appropriate.

9.1.4 Breaches of the Act

Any breach of the Act will be referred to the appropriate compliance Authority.

9.2 Procedural Complaints

9.2.1 Complaints by Applicants

Complaints shall be addressed in writing in the first instance to the Secretary (Ethics@lincoln.ac.nz). Any complaints from members of the public, staff or students of Lincoln University, staff of parented organisations, members of the AEC, applicants or investigators will be dealt with fairly and promptly. Any complaint received with respect to a parented organisation will be referred to the head of the organisation to investigate, unless it is that person against whom the complaint is lodged, in which case it may be reported to the Director-General of MPI.

9.2.2 Complaints by AEC Members

Where complaints with respect to AEC procedures are made by AEC members which concern the Chairperson or other members of the AEC, these shall be managed by the Vice-Chancellor and the Research Management Office. Alternatively, AEC members may report complaints directly to the Director-General of MPI.

9.2.3 Complaints against the Chair

Complaints against the Chairperson of the AEC from members of the AEC, members of the public, staff or students of Lincoln University, and staff of parented organisations shall be in writing to the Vice-Chancellor who will manage appropriate action. Alternatively, AEC members may report complaints directly to the Director-General of MPI.

10 Process to Amend, Suspend or Revoke the Code

The code holder will apply to the Director-General of MPI for amendment, suspension, or revocation of the Code. When this Code is revised, amended, suspended or revoked this will be communicated to parented organisations, and staff and students of the university by electronic mail. A revised copy of the Code will be lodged on the University intranet.