

Permit¹

This permit is issued under the following legislation:
S12(E) Nature Conservation (Administration) Regulation 2006

Scientific Purposes Permit

Permit number: **WISP05591008 (amended)**
Valid from: **01-MAY-2012** **30-JUN-2014**

Parties to the Permit

Role	Name	Address
Principal Holder	RTI s78B(2) - Personal Information	CTPI 49-Sch4

Permitted Location Activity Details

Location(s)	Activity(s)
Non-protected areas – Gold Coast City Council LGA	Research on non-protected areas for scientific purposes

Species Details

Common Name	Scientific Name	Category	Quantity
Koala (southeast Queensland bioregion)	Phascolarctos cinereus (southeast Queensland bioregion)	Live	260 Animal(s) / Parts/Product (including 130 already treated)

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/ similar as required by legislation administered under the Department of Environment and Heritage Protection and the Queensland Parks and Wildlife Service.

Conditions of Approval

Agency Interest: Biodiversity

GENERAL CONDITIONS

- PB1: This permit is issued subject to holding a current ethics permit by the Principal Holder.
- PB2: A total number of 260 koalas are authorised to be captured and released over the duration of this permit.
- PB3: The Principal Holder and all other authorised persons must produce a copy of all relevant approval documentation and proof of identity on request by a Conservation officer appointed under the *Nature Conservation Act 1992*.
- PB4: The Principal Holder and all other authorised persons must not engage in the activity authorised for any commercial purpose.
- PB5: All activities must be undertaken in accordance with the provisions of the laws in force from time to time in the State of Queensland. A law shall be taken to be law in force in the State of Queensland notwithstanding that it applies to only part of the State.
- PB6: Permission must be obtained from the landholder prior to commencing activities on freehold/ leasehold land.
- PB7: Environmental impact is to be kept to a minimum.

KOALA SEARCHES

- PB8: Koala searches are to be performed using a combination of faecal pellet-based surveys (Spot Assessment Technique – SAT); strip-transect searches, and spotlighting (evening only).

KOALA NUMBERS

- PB9: The number of koalas permitted to be recruited under this amended permit is not to exceed 130 individuals (This is in addition to the original 130 individuals permitted under the original permit dated 01/12/2008 – 30/11/2012).
- PB10: The numbers of koalas to be treated are to be as follows:

In Situ Total = no more than 40 individuals

East Coomera Urban Area = up to 20 individuals

Pimpama River Conservation Area = up to 8 individuals

Lower Beechmont Conservation Area Reserves = up to 6 individuals

Wongawallan Conservation Area = up to 6 individuals

Translocated Total = no more than 90 individuals

Pimpama River Conservation Area = up to 15 individuals

Lower Beechmont Conservation Area Reserves = up to 60 individuals

Wongawallan Conservation Area = up to 20 individuals

KOALA CAPTURE

- PB11: Collecting activities are to be effected away from public view.
- PB12: All team members must be trained in safe and appropriate koala handling techniques prior to assisting with koala captures.
- PB13: The koala capture and processing team is to include the project supervisor, the conservation research officer and no more than two (2) other trained team members.
- PB14: All traps must be washed and sun dried between sites to prevent the spread of disease and parasites.
- PB15: Individual assessment of potential capture animals is to be undertaken to determine:
- a) the most suitable capture technique for each situation;
 - b) the likelihood of success;
 - c) stress levels of the individual koala;
 - d) risk to the individual koala; and
 - e) risk to the capture team.
- PB16: In the case where an assessment determines that the risks are unable to be adequately mitigated the team must not commence the capture attempt.
- PB17: Captures must be conducted using either:
- a) extendable poles and flags or
 - b) a koala trap (i.e. Corflute enclosure designed and previously employed by Dr Steven Phillips, Biolink Ecological Consultants).
- PB18: Koala traps are to be installed prior to dusk and checked at regular intervals during the evening and at dawn.
- PB19: Koala traps are to be sited and covered in such a way as to ensure the koala is kept dry in the event of rainfall between checks.
- PB20: A cherry-picker may be employed in urgent situations e.g. where a koala is located in a tree adjacent to a major road.
- PB21: Capture and bagging of koalas must occur at the base of the capture tree or on the ground.
- PB22: Release of koalas is to be assessed on an individual basis and may occur by soft or hard release.
- PB23: All koalas are to be released during their normal periods of activity.
- PB24: On detection of a high stress response to capture by a koala, the capture attempt must be abandoned and no further attempt made on the same koala for a minimum of 24 hours.

KOALA PROCESSING

- PB25: The sedation of koalas must occur as soon as possible following capture under authority of Queensland Health for administration of Schedule 4 drugs, in accordance with the provisions of the *Health (Drugs and Poisons) Regulation 1996* and prior to any invasive procedures taking place.
- PB26: The project supervisor, conservation research officer and Dr Jonathan Hanger (Veterinary Surgeon, Australia Zoo) are the only persons authorised to administer Schedule 4 drugs.
- PB27: Dr Jonathan Hanger is to supervise the administration of Schedule 4 drugs.

- PB28: Vital signs (pulse rate, rhythm, amplitude and tone; mucous membrane colour and capillary refill of lips and gums; heart rate; respiration rate; rectal temperature) are to be monitored regularly throughout processing of each koala to ensure early detection of any adverse physiological response and to gauge the level of sedation.
- PB29: Only numbered plastic ear tags obtained from Wildcare Australia and stamped with the Wildcare hotline number are to be used to tag individual koalas and to facilitate reporting in case of injury or death.
- PB30: Details of individual koalas, ear tags and microchip numbers are to be included in interim and final project reports to the Department of Environment and Heritage Protection.
- PB31: Koalas that show signs of acute disease or very poor condition are to be referred for veterinary assessment prior to further consideration for inclusion in the radio-tracking program.
- PB32: Radio-collars are to be fitted with a minimum of 2-3 finger spaces under the collar and are to be checked by sliding over the head to ensure the koala can pull out of the collar if it were to become entangled.
- PB33: Koala processing steps must comply with the steps set out in Appendix 1.
- PB34: Inclusion of any koala in the CHLAMYDIA VACCINE PROJECT is subject to further animal ethics approval and an additional scientific purposes permit.

KOALA PRODUCT AND BY-PRODUCT COLLECTION

- PB34: Collection of koala faecal pellets may be collected from the ground in the field or from the capture bag or carry cage during capture. A limit of up to 30 pellets may be collected per koala sample.
- PB36: A koala fur sample may be collected from a site on the forearm of a koala being shaved during initial capture and follow-up health checks. The sample size may not be larger than 3cm x 3cm.
- PB37: Ear tag tissue punchlets are to be collected immediately prior to ear tagging and stored in alcohol.
- PB38: Ocular and urogenital swabs must be stored appropriately for analysis of Chlamydia screening.
- PB39: Blood samples (no more than 3ml) are to be collected into EDTA tubes and on slide smears for analysis. This condition is subject to condition PB41.
- PB40: Veterinary procedures and sampling conducted by Dr J. Hanger are to be undertaken in accordance with Dr J. Hanger's current animal ethics approval and corresponding Scientific Purposes Permit (WISP0782410).
- PB41: Additional veterinary procedures permitted to be conducted by Dr J. Hanger are as follows:
1. Ultrasound – employed to examine the kidneys, ureters, urinary bladder, prostate and reproductive tract.
 2. Blood sampling – a maximum of 5ml for blood samples to allow for all necessary analysis.
 3. Plasma samples – collected from the blood sample.
 4. Bone marrow samples – no more than 20µl collected by bone marrow aspiration from the iliac crest.
 5. Abdominal aspirate – using an abdominal tap to collect no more than sufficient to allow for a maximum of two microscope slide smears.
 6. Urinalysis – using cystocentesis, i.e. locating the urinary bladder using ultrasound and extracting urine through the abdomen using a needle and syringe.

KOALA TREATMENT GROUPS

PB42: Koala treatment groups are defined by the following -

A. In-situ Conservation Area Treatment Groups:

Resident koalas in areas near where introductions are proposed are to be captured, assessed, radio-collared, at the capture site and monitored.

B. In-situ Control Treatment Group:

Koalas from within the Urban Footprint are to be captured, assessed, radio-collared, released at the capture site and monitored.

C. Trial Translocation Treatment Groups:

Koalas are to be captured, assessed, radio-collared and released at the Conservation Area sites. The koalas are to be split into groups of no less than 10 individuals at the four recipient sites.

D. Dependent Young Treatment Group:

Dependent young koalas that are likely to become independent during the radio-tracking program may be fitted with lighter-weight 6-month radio-collars and monitored until they have established a home-range in a secure habitat area.

TRANSPORT

PB43: Koalas must be transported by vehicle in a secure carry cage (adequately comfortable and covered) on the seat of the vehicle and restrained with a seat belt.

PB44: Koalas must be regularly checked and monitored throughout transportation which is to take no longer than 1 hour.

KOALA MONITORING

PB45: All radio tracking devices must be removed prior to termination of the field study, before expiration of this permit and before expected termination of battery life.

PB46: All team members undertaking radio-tracking will be trained and certified by the project supervisor as competent in use of the equipment and in koala observation to aid early detection of any potential health concerns.

PB47: Koala monitoring frequency is set out in Appendix 2.

MORTALITY

PB48: The Queensland Museum has first refusal of any koala or material resulting from mortality. In the case that the Queensland Museum does not take the euthanized koala, the carcass must be disposed of by Wildcare Australia or the attending veterinarian following post mortem in accordance with standard practices.

PB49: If a koala is encountered that is suffering from major trauma, severe debilitation or acute disease, Wildcare Australia must be contacted immediately and arrangements made to deliver the koala as soon as possible for veterinary assessment.

PB50: If the koala is conscious and considered to be suffering severe pain and distress, a dose of Pamlin (Diazepam) may be administered (in accordance with approvals from Queensland Health) prior to transport for veterinary assessment.

- PB51: If the veterinary assessment determines that euthanasia is warranted this is to be undertaken by the veterinarian by administration of the appropriate barbiturate.
- PB52: Any mortality during capture or subsequent handling is to be reported immediately to the Project Officer (Scientific Permits) and a copy of the post mortem results must be forwarded to the Department of Environment and Heritage Protection within 14 business days.

REPORTING

- PB53: A return of operations (Wildlife Data Return and Report) must be submitted to EHP within 14 business days after the end of each 12 month period the permit is in force and within 14 business days after the permit ceases to have effect.

The return is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected.

- PB54: A report on all work undertaken in relation to this permit and a copy of any resulting publication from this research is to be submitted to the Department of Environment and Heritage Protection.
- PB55: This information is to be supplied to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection.

Definitions:

Invasive procedures - For the purposes of this permit 'invasive procedures' are defined as including: examination of tooth wear; urogenital and ocular swabbing; blood sampling including shaving of the forearm; pouch examination; fitting of radio-collars; application of ear tags and micro chipping and all procedures listed in PB41.

Soft release - For the purposes of this permit 'soft release' is defined as being when it has been assessed that a koala would benefit from a period of close examination and is to be released into a soft-release enclosure (i.e. corflute enclosure around the base of a tree). Furthermore, koalas are to be retained within enclosures for at least 1 week, but not more than 2 weeks. Each koala is to be observed from a distance of at least 10m and a minimum of 20 minutes following soft release in order to record behaviour and to ensure the koala has settled in a secure resting position in a tree.

Hard release - For the purposes of this permit 'hard release' is defined as being when it has been assessed that a koala is healthy and above 4kg in total body weight and there is a low chance of wild dog impact, a koala may be released directly into suitable habitat (i.e. NO enclosure).

CTPI 49-Sch4 - Signature

Signed

Date 1/5/12

Michael Devery
Delegate
Department of Environment and Heritage Protection

Appendix 1: Koala processing steps

Prior to capture

1. Set out tarp and equipment in a nearby flat and well-shaded position.
2. Test microchip and record the number on data sheet.

After capture

3. Weigh koala in bag, calculate the Alfaxan dose using the formula:
Drug dose (mls) = (dose rate (mg/kg) x body weight (kg)) / drug concentration (mg/ml)
Where dose rate = 3mg/kg and Aifaxan concentration = 10mg/ml
4. Apply surgical gloves to all team members involved with processing.
5. Draw up the required volume of Alfaxan.
6. Swab the injection site and administer the required volume of Alfaxan: place needle in sharps bin.
7. Record time of Alfaxan administration on data sheet.
8. Load ear tag into applicator and record number on data sheet.
9. Allow koala to sit quietly in bag cradled between legs for - 5 minutes, regularly checking status and alertness.
10. Assign a condition score (1-10) for the koala and record result on data sheet.
11. Check alertness at 10 minutes and administer top-up Alfaxan if required after 15-20 minutes: place needle in sharps bin.
12. Place koala carefully on its side (out of bag) once adequately sedated. Full general anaesthesia should result in loss of all voluntary movement, absence of palpebral reflex, minimal corneal reflex, absence of response to painful stimuli, and maintenance of reasonably constant respiration rate and heart rate.
13. Commence ongoing monitoring of the anaesthetised koala, through regular observation and recording of depth of anaesthesia and vital signs. Monitor vital signs through assessment of: pulse (rate, rhythm, amplitude and tone) by palpation of femoral or axillary pulses, mucous membrane colour and capillary refill time (oral mucosa) and colour of lips, heart rate and respiratory rate, and rectal temperature. A portable pulse oximeter will also be attached to the koala to assist the measurement of blood oxygen saturation and pulse. Assess and record these observations every 5 minutes.
14. Apnoea or marked slowing/irregularity of breaths may indicate a deepening level of anaesthesia, and warrants increased surveillance of vital signs, if SpO₂ falls below 90%, intervention to stimulate breathing or provide breathing support may be required. Firm rubbing of the chest area or stroking/palpitation of the thorax or costochondral junctions will often help to stimulate breathing.
15. Examine tooth wear to estimate age class and record result on the data sheet.
16. Check pouch and record any evidence of breeding or lactation.
17. Record general condition and any clinical signs of illness.
18. Take ocular and urogenital swabs; label the swab tube with koala ear tag number and place on ice-pack in esky (cooler box).
19. Clip a small area of fur on forearm (no greater than 3cm x 3cm) to collect a blood sample for analysis of general health status. Swab area and insert a 23 gauge needle into cephalic vein to draw - 1ml blood sample and transfer to EDTA tube and prepare a smear on slide.
20. Clip fur on outside and inside of the ear where tag is to be inserted (female in right; male in left), swab and take tissue sample using leather punch. Place tissue sample carefully in 70% ethanol with forceps and label with koala ear tag number.
21. Insert ear tag with shaft coated in Paraderm Plus cream.
22. Clip a small area of fur between the shoulder blades where the microchip is to be inserted.
23. Swab site and insert microchip: place needle in sharps bin.
24. Check radio transmitter, attach collar (ensure that it can slip snugly over head) and record frequency on data sheet.
25. Check that all processing and data sheet entries have been completed.
26. In the case of koalas to be translocated: maintain in recovery position until recovery to light sedation and sternally recumbent. Place koala in sitting position in carry cage for transport by

- vehicle to the designated recipient site for soft-release (40 to 60 minute drive) with regular monitoring on route. Check for full recovery prior to release into enclosure.
27. In the case of koalas to be released in-situ: maintain in recovery position until recovery to light sedation and then place in bag, monitor until assessed as alert for release.
 28. Koalas to be released in-situ should be released at the point of capture once the project supervisor or research officer is satisfied that the koala has fully recovered from sedation.
 29. Monitor koala after release until it has settled in a secure resting position in a tree.
 30. All equipment should be cleaned with alcohol and re-packed.
 31. Hands are to be washed thoroughly with Betadine and rinsed.
 32. Copy of data sheets to be provided to the Department of Environment and Heritage Protection for their records and database.

RTI DL RELEASE - EHP

Appendix 2: Koala monitoring frequency

A. In-situ Conservation Area Treatment Groups:

Stage 1: At least 3 days per week for the first 2 weeks.

Stage 2: At least 2 days per week for the next 6 weeks.

Stage 3: At least 1 day per week for the remainder of the radio-tracking program.

Recapture: Around 11 – 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

B. In-situ Control Treatment Group:

Stage 1: At least 3 days per week for the first 2 weeks.

Stage 2: At least 2 days per week for the remainder of the radio-tracking program.

Recapture: Around 11 - 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

C. Trial Translocation Treatment Groups:

Stage 1: 6 days per week whilst in soft-release enclosures.

Stage 2: At least 3 days per week once outside soft-release enclosure, or if the animal has been hard-released until the koala has re-established a home range in a secure habitat area.

Stage 3: At least once per week.

Recapture: Around 11 – 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

D. Dependent Young Treatment Group:

As dependent juvenile koalas may become independent during the radio-tracking program, suitable independent young may be fitted with lighter-weight 12-month radio-collars. They may be in any of the above treatment groups.

Stage 1: At the same rate as the mother, prior to dispersal.

Stage 2: At least 3 days per week during dispersal, until established in a secure habitat area.

Stage 3: Thereafter, at least once per week at recipient sites and at least 2 days per week at East Coomera.

Recapture: Around 5 months after initial radio-collaring to check and adjust fit required.

Notice of decision - permit¹ application

This notice is issued by the administering authority to advise of a statutory decision on a permit application.

Mr John Callaghan
Koala Conservation Project Manager Environmental Planning and Conservation for the Chief Executive
Officer
PO Box 5042
GOLD COAST MC QLD 9729

Our reference: 325728

Dear Mr Callaghan

Re: Decision made in relation to your application

Your application received on 10-SEP-2013 has been assessed and the decision in regard to your application is specified below:

Permit applied for	Permit Number	Decision
Scientific Purposes Permit under Nature Conservation (Administration) Regulation 2006	WISP13423213	Granted - level 2

For the permit applied for that has been granted, the conditions of approval are attached. Where applicable, a Statement of Reasons is provided in relation to the decision. Please note that for the approval, this Notice of Decision and the relevant attachments constitute the permit documentation. Please retain this approval documentation for your records.

Included with this notice is advice on review and appeal processes that may be available to you. Should you seek a review or appeal, you are advised to seek independent advice before taking such action.

If you require more information, please contact Jacqui Brock on the telephone number listed below.

Yours sincerely

CTPI 49-Sch4 - Signature

Sally Egan
Department of Environment and Heritage Protection
Date 24/9/2013

Enquiries:

Wildlife - Toowoomba - EHP
PO Box 731
TOOWOOMBA QLD 4350
Phone: (07) 4699 4333
Fax: (07) 4699 4399

Attachment - Permit/Statement of Reasons

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation.



Permit¹

This permit is issued under the following legislation:
S12(E) Nature Conservation (Administration) Regulation 2006

Scientific Purposes Permit

Permit number: WISP13423213

Valid from: 01-DEC-2013 to 30-JUN-2014

Parties to the Permit

Role	Name	Address
Principal Holder	Mr John Callaghan	CTPI 49-Sch4

Permitted Location Activity Details

Location (s)	Activity (s)
Non-protected areas - Gold Coast City Council LGA	Research on non-protected areas for scientific purposes

Permit Details

Species Details

Location		Activity	
Non-protected areas - Gold Coast City Council LGA		Research on non-protected areas for scientific purposes	
Common Name	Scientific Name	Category	Quantity
koala (southeast Queensland bioregion)	Phascolarctos cinereus (southeast Queensland bioregion)	Live	260 as already recruited under WISP05591008 Animal/s Parts/Products

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation.

Conditions of Approval

Agency Interest: Biodiversity

- PB1 Permission must be obtained from the landholder prior to commencing activities on freehold/leasehold land.
- PB2 This permit is issued subject to the Principal Holder holding the current approval of a registered animal ethics committee.
- Unless otherwise specified, all practices and procedures undertaken pursuant to this permit are to be in accordance with those details contained in and attached to the Application for a Scientific Purposes Permit signed by the Principal Holder on 10 September 2013.
- Any mortality during capture or subsequent handling is to be reported immediately to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection.
- The Queensland Museum must be given first refusal of any material resulting from mortality.
- PB3 Environmental impact is to be kept to a minimum.
- All collection and handling equipment, items of clothing (including footwear) and vehicles must be cleaned before and after each separate collection activity.
- All equipment (traps, tents, flagging tape, markers etc) and any waste generated during the execution of this research project is to be removed prior to the expiry date of this permit.
- PB4 All collecting activities are to be effected away from public view.
- PB5 This permit (or a copy plus proof of identity of the permit holder) must be carried while engaged in any activity authorised by the permit.
- Additional persons authorised to collect under this permit must while collecting
- (a) Carry a copy of the permit endorsed by the Principal Holder with the additional person's name and residential address; and
 - (b) Carry a form of identification that displays a coloured photograph of the person, such as a Driver's licence.
- PB6 The Principal Holder must not engage in the activity authorised by this permit for any commercial purpose.
- PB7 A Return of Operations and Scientific or Educational Purposes Permit Report must be submitted on the standard reporting forms:
- within 10 business days of the anniversary date of the permit each year the permit is in force; and
 - within 10 business days of the expiry date.
- The return is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected. This information is to be supplied to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection, PO Box 731, Toowoomba or electronically to SPPreport.southern@ehp.qld.gov.au. Please refer to the Wildlife Data Return Guidelines available at www.ehp.qld.gov.au for assistance completing the form.
- A copy of any resulting publication from this research is to be provided to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection, PO Box 731,

Toowoomba or electronically to SPPreport.southern@ehp.qld.gov.au.

CTPI 49-Sch4 - Signature

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Signed

Sally Egan
Delegate
Department of Environment and Heritage Protection

RTI DL RELEASE - EHP

Notice of decision - Permit¹ amendment

This notice is issued by the administering authority to advise of a statutory decision.

Mr John Callaghan
Koala Conservation Project Manager,
Environmental Planning and Conservation for the Chief Executive Officer
PO Box 5042 GOLD COAST MC QLD 9729

Our reference: 325728

Dear Mr Callaghan

Re: Decision made in relation to your application

The department has reviewed your application received on 21-DEC-2011 and wishes to advise you of the following decision:

Permit Applied For	Permit Number	Decision
Scientific Purposes Permit under Nature Conservation (Administration) Regulation 2006	WISP05591008	Granted - level 2

Where the application has been granted, the permit has been re-issued and is attached. A minor amendment to the end date has been made in accordance with the *Nature Conservation (Administration) Regulation 2006*.

Please note that for each approval, this Notice of Decision and the relevant attachments constitute the new permit documentation. Please retain this approval documentation for your records.

Included with this Notice is advice on review and appeal processes available to you. Should you wish to seek a review or appeal, you are advised to seek independent advice before taking such action.

If you require more information please contact Joline Lalime on the telephone number listed below.

Yours sincerely

CTPI 49-Sch4 - Signature

Department of Environment and Heritage Protection

21-AUG-2012

Enquiries:

Wildlife - Central Office
PO Box 15155
CITY EAST QLD 4002
Phone: (07) 3330 5072
E. joline.lalime@ehp.qld.gov.au

Attachment

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Information notice

This notice is issued by the Department of Environment and Heritage Protection to advise of a statutory decision on a permit application under the *Nature Conservation Act 1992* (the Act).

When assessing an application for a relevant authority, the chief executive must have regard to the following:

s25(1) Nature Conservation (Administration) Regulation 2006

- (a) the impact the activities that may be carried out under the authority may have on the conservation of the cultural or natural resources of a protected area or native wildlife;
- (b) the effect the grant of the authority will have on the fair and equitable access to nature, having regard to, in particular, the ecologically sustainable use of protected areas or wildlife;
- (c) any contribution the applicant proposes to make to the conservation of nature;
- (d) any relevant Australian or international code, instrument, protocol or standard or any relevant intergovernmental agreement;
- (e) the precautionary principle;
- (f) public health and safety;
- (g) the public interest;
- (h) for an application for a relevant authority other than a camping permit—whether the applicant is a suitable person to hold the authority, having regard to the matters mentioned in schedule 2;
- (i) for an application for a relevant authority for a national park (Cape York Peninsula Aboriginal land)—the indigenous management agreement for the protected area;
- (j) any recovery plan for wildlife to which the authority applies;
- (k) any other matter stated in a management instrument as a matter the chief executive must have regard to when considering an application for the authority.

s25(2) Nature Conservation (Administration) Regulation 2006

Without limiting subsection (1), the chief executive may have regard to anything else the chief executive considers appropriate to achieve the object of the Act.

s31 Nature Conservation (Administration) Regulation 2006

The chief executive can not –

- (a) grant a protected area authority to a person if the Protected Areas Management Regulation states the chief executive can not grant the authority to the person or to any person; or
- (b) grant a wildlife authority to a person if the Wildlife Management Regulation or a conservation plan states the chief executive can not grant the authority to the person or to any person.

Note – See also section 137 of the Act.

s34 and s40 Nature Conservation (Protected Areas Management) Regulation 2006

In considering an application for an Aboriginal tradition authority or Island custom authority for a cultural or natural resource of a protected area, the chief executive must have regard to—

- (a) any advice given by the corporation named in the application for the authority on the significance, under Aboriginal tradition, of the activity the subject of the application; and
- (b) whether there is a reasonable alternative to taking, keeping, using or interfering with the resource; and
- (c) the extent to which the activity will interfere with the public use of the protected area, or the part of a protected area, to which the authority applies.

Information notice

This notice is issued by the Department of Environment and Heritage Protection to advise of a statutory decision on a permit application under the *Nature Conservation Act 1992* (the Act).

s49 *Nature Conservation (Protected Areas Management) Regulation 2006*

In considering an application for an activity permit for a protected area, the chief executive must have regard to each of the following—

- (a) the impact the activities that may be conducted under the authority may have on the character and amenity of the area and adjacent areas;
- (b) the likely cumulative effect of the proposed use and other uses on the area;
- (c) the orderly and proper management of the area.

s50 *Nature Conservation (Protected Areas Management) Regulation 2006*

The chief executive can not grant an activity permit for a protected area that is inconsistent with—

- (a) the management principles for the area; or
- (b) the interim or declared management intent, or management plan, for the area

s137 *Nature Conservation Act 1992*

(1) A licence, permit or other authority issued or given under a regulation or another Act to take, use, keep or interfere with a cultural or natural resource of a protected area must be consistent with—

- (a) the management principles for the area; and
- (b) the interim or declared management intent, or management plan, for the area.

(2) A licence, permit or other authority issued or given under a regulation to—

- (a) take, use or keep protected wildlife; or
- (b) abandon, release, keep, use or introduce international or prohibited wildlife;

must be consistent with—

- (c) the management principles for the wildlife; and
- (d) the declared management intent, or conservation plan, applicable to the wildlife.

Consideration for each of the above has been made and consequently some conditions have been imposed on your permit. Please take the time to familiarise yourself with these. Should you have any questions regarding any of these conditions please contact the Project Manager.

The *Nature Conservation (Administration) Regulation 2006* has internal and external reviews available to you should you be dissatisfied with any condition imposed on your permit. In summary these include:

- If you wish to apply for an internal review of the decision an application must be made in writing within 20 business days after being given this notice.
- The application must be supported by sufficient information to decide the application.
- The application for internal review does not stay the decision made. However you may apply to the Queensland Civil and Administrative Tribunal (QCAT) for a stay of the decision.
- The Department of Environment and Heritage Protection must review the decision within 28 days of receiving the application and provide you with a decision within 14 days of making the review decision.
- If you are dissatisfied with the internal review decision then you are able to file an application for an external review in the registry of the QCAT within 28 days of receiving the internal review notice.

Information notice

This notice is issued by the Department of Environment and Heritage Protection to advise of a statutory decision on a permit application under the *Nature Conservation Act 1992* (the Act).

- For further information you are directed to Part 4: Internal and External Reviews of the *Nature Conservation (Administration) Regulation 2006* and the Queensland Civil and Administrative Tribunal Act 2009 which can be found at www.legislation.qld.gov.au/OQPCHome.htm

Internal and external rights under the *Nature Conservation (Administration) Regulation 2006* are located in Part 4 of the regulation. If you are dissatisfied with the internal review decision then you are able to file an application for an external review in the registry of the QCAT pursuant to the Queensland Civil and Administrative Tribunal Act 2009 within 28 days of receiving the internal review notice.

A copy of the regulation and the act can be accessed at www.legislation.qld.gov.au

Also note:

Should it be determined at some future date by any Court or Tribunal that native title exists over the subject land or waters, this permit may be terminated and the permit holder (or any subsequent permit holder) may be required to remove any works established under this licence at the permit holder's (or any subsequent permit holder's) own cost, expense and risk. In that event, no compensation for works, development costs or loss of income shall be payable to the permit holder (or any subsequent permit holder) by the State of Queensland.

RTI DL RELEASE - EHP

Permit¹

This permit is issued under the following legislation:
S12(E) Nature Conservation (Administration) Regulation 2006

Scientific Purposes Permit

Permit number: WISP05591008 (amended)
Valid from: 01-MAY-2012 30-NOV-2013

Parties to the Permit

Role	Name	Address
Principal Holder	Mr John Callaghan	CTPI 49-Sch4

Permitted Location Activity Details

Location(s)	Activity(s)
Non-protected areas – Gold Coast City Council LGA	Research on non-protected areas for scientific purposes

Species Details

Common Name	Scientific Name	Category	Quantity
Koala (southeast Queensland bioregion)	Phascolarctos cinereus (southeast Queensland bioregion)	Live	260 Animal(s) / Parts/Product (including 130 already treated)

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/ similar as required by legislation administered under the Department of Environment and Heritage Protection and the Queensland Parks and Wildlife Service.

Conditions of Approval

Agency Interest: Biodiversity

GENERAL CONDITIONS

- PB1: This permit is issued subject to holding a current ethics permit by the Principal Holder.
- PB2: A total number of 260 koalas are authorised to be captured and released over the duration of this permit.
- PB3: The Principal Holder and all other authorised persons must produce a copy of all relevant approval documentation and proof of identity on request by a Conservation officer appointed under the *Nature Conservation Act 1992*.
- PB4: The Principal Holder and all other authorised persons must not engage in the activity authorised for any commercial purpose.
- PB5: All activities must be undertaken in accordance with the provisions of the laws in force from time to time in the State of Queensland. A law shall be taken to be law in force in the State of Queensland notwithstanding that it applies to only part of the State.
- PB6: Permission must be obtained from the landholder prior to commencing activities on freehold/leasehold land.
- PB7: Environmental impact is to be kept to a minimum.

KOALA SEARCHES

- PB8: Koala searches are to be performed using a combination of faecal pellet-based surveys (Spot Assessment Technique – SAT); strip-transect searches, and spotlighting (evening only).

KOALA NUMBERS

- PB9: The number of koalas permitted to be recruited under this amended permit is not to exceed 130 individuals (This is in addition to the original 130 individuals permitted under the original permit dated 01/12/2008 – 30/11/2012).

- PB10: The numbers of koalas to be treated are to be as follows:

In Situ Total = no more than 40 individuals

East Coomera Urban Area = up to 20 individuals

Pimpama River Conservation Area = up to 8 individuals

Lower Beechmont Conservation Area Reserves = up to 6 individuals

Wongawallan Conservation Area = up to 6 individuals

Translocated Total = no more than 90 individuals

Pimpama River Conservation Area = up to 15 individuals

Lower Beechmont Conservation Area Reserves = up to 60 individuals

Wongawallan Conservation Area = up to 20 individuals

KOALA CAPTURE

- PB11: Collecting activities are to be effected away from public view.
- PB12: All team members must be trained in safe and appropriate koala handling techniques prior to assisting with koala captures.
- PB13: The koala capture and processing team is to include the project supervisor, the conservation research officer and no more than two (2) other trained team members.
- PB14: All traps must be washed and sun dried between sites to prevent the spread of disease and parasites.
- PB15: Individual assessment of potential capture animals is to be undertaken to determine:
- a) the most suitable capture technique for each situation;
 - b) the likelihood of success;
 - c) stress levels of the individual koala;
 - d) risk to the individual koala; and
 - e) risk to the capture team.
- PB16: In the case where an assessment determines that the risks are unable to be adequately mitigated the team must not commence the capture attempt.
- PB17: Captures must be conducted using either:
- a) extendable poles and flags or
 - b) a koala trap (i.e. Corflute enclosure designed and previously employed by Dr Steven Phillips, Biolink Ecological Consultants).
- PB18: Koala traps are to be installed prior to dusk and checked at regular intervals during the evening and at dawn.
- PB19: Koala traps are to be sited and covered in such a way as to ensure the koala is kept dry in the event of rainfall between checks.
- PB20: A cherry-picker may be employed in urgent situations e.g. where a koala is located in a tree adjacent to a major road.
- PB21: Capture and bagging of koalas must occur at the base of the capture tree or on the ground.
- PB22: Release of koalas is to be assessed on an individual basis and may occur by soft or hard release.
- PB23: All koalas are to be released during their normal periods of activity.
- PB24: On detection of a high stress response to capture by a koala, the capture attempt must be abandoned and no further attempt made on the same koala for a minimum of 24 hours.

KOALA PROCESSING

- PB25: The sedation of koalas must occur as soon as possible following capture under authority of Queensland Health for administration of Schedule 4 drugs, in accordance with the provisions of the *Health (Drugs and Poisons) Regulation 1996* and prior to any invasive procedures taking place.
- PB26: The project supervisor, conservation research officer and Dr Jonathan Hanger (Veterinary Surgeon, Australia Zoo) are the only persons authorised to administer Schedule 4 drugs.
- PB27: Dr Jonathan Hanger is to supervise the administration of Schedule 4 drugs.

WISP05591008

- PB28: Vital signs (pulse rate, rhythm, amplitude and tone; mucous membrane colour and capillary refill of lips and gums; heart rate; respiration rate; rectal temperature) are to be monitored regularly throughout processing of each koala to ensure early detection of any adverse physiological response and to gauge the level of sedation.
- PB29: Only numbered plastic ear tags obtained from Wildcare Australia and stamped with the Wildcare hotline number are to be used to tag individual koalas and to facilitate reporting in case of injury or death.
- PB30: Details of individual koalas, ear tags and microchip numbers are to be included in interim and final project reports to the Department of Environment and Heritage Protection.
- PB31: Koalas that show signs of acute disease or very poor condition are to be referred for veterinary assessment prior to further consideration for inclusion in the radio-tracking program.
- PB32: Radio-collars are to be fitted with a minimum of 2-3 finger spaces under the collar and are to be checked by sliding over the head to ensure the koala can pull out of the collar if it were to become entangled.
- PB33: Koala processing steps must comply with the steps set out in Appendix 1.
- PB34: Inclusion of any koala in the CHLAMYDIA VACCINE PROJECT is subject to further animal ethics approval and an additional scientific purposes permit.

KOALA PRODUCT AND BY-PRODUCT COLLECTION

- PB34: Collection of koala faecal pellets may be collected from the ground in the field or from the capture bag or carry cage during capture. A limit of up to 30 pellets may be collected per koala sample.
- PB36: A koala fur sample may be collected from a site on the forearm of a koala being shaved during initial capture and follow-up health checks. The sample size may not be larger than 3cm x 3cm.
- PB37: Ear tag tissue punchlets are to be collected immediately prior to ear tagging and stored in alcohol.
- PB38: Ocular and urogenital swabs must be stored appropriately for analysis of Chlamydia screening.
- PB39: Blood samples (no more than 3ml) are to be collected into EDTA tubes and on slide smears for analysis. This condition is subject to condition PB41.
- PB40: Veterinary procedures and sampling conducted by Dr J. Hanger are to be undertaken in accordance with Dr J. Hanger's current animal ethics approval and corresponding Scientific Purposes Permit (WISP0782410).
- PB41: Additional veterinary procedures permitted to be conducted by Dr J. Hanger are as follows:
1. Ultrasound – employed to examine the kidneys, ureters, urinary bladder, prostate and reproductive tract.
 2. Blood sampling – a maximum of 5ml for blood samples to allow for all necessary analysis.
 3. Plasma samples – collected from the blood sample.
 4. Bone marrow samples – no more than 20µl collected by bone marrow aspiration from the iliac crest.
 5. Abdominal aspirate – using an abdominal tap to collect no more than sufficient to allow for a maximum of two microscope slide smears.
 6. Urinalysis – using cystocentesis, i.e. locating the urinary bladder using ultrasound and extracting urine through the abdomen using a needle and syringe.

KOALA TREATMENT GROUPS

PB42: Koala treatment groups are defined by the following -

A. In-situ Conservation Area Treatment Groups:

Resident koalas in areas near where introductions are proposed are to be captured, assessed, radio-collared, at the capture site and monitored.

B. In-situ Control Treatment Group:

Koalas from within the Urban Footprint are to be captured, assessed, radio-collared, released at the capture site and monitored.

C. Trial Translocation Treatment Groups:

Koalas are to be captured, assessed, radio-collared and released at the Conservation Area sites. The koalas are to be split into groups of no less than 10 individuals at the four recipient sites.

D. Dependent Young Treatment Group:

Dependent young koalas that are likely to become independent during the radio-tracking program may be fitted with lighter-weight 6-month radio-collars and monitored until they have established a home-range in a secure habitat area.

TRANSPORT

PB43: Koalas must be transported by vehicle in a secure carry cage (adequately comfortable and covered) on the seat of the vehicle and restrained with a seat belt.

PB44: Koalas must be regularly checked and monitored throughout transportation which is to take no longer than 1 hour.

KOALA MONITORING

PB45: All radio tracking devices must be removed prior to termination of the field study, before expiration of this permit and before expected termination of battery life.

PB46: All team members undertaking radio-tracking will be trained and certified by the project supervisor as competent in use of the equipment and in koala observation to aid early detection of any potential health concerns.

PB47: Koala monitoring frequency is set out in Appendix 2.

MORTALITY

PB48: The Queensland Museum has first refusal of any koala or material resulting from mortality. In the case that the Queensland Museum does not take the euthanized koala, the carcass must be disposed of by Wildcare Australia or the attending veterinarian following post mortem in accordance with standard practices.

PB49: If a koala is encountered that is suffering from major trauma, severe debilitation or acute disease, Wildcare Australia must be contacted immediately and arrangements made to deliver the koala as soon as possible for veterinary assessment.

PB50: If the koala is conscious and considered to be suffering severe pain and distress, a dose of Pamlin (Diazepam) may be administered (in accordance with approvals from Queensland Health) prior to transport for veterinary assessment.

- PB51: If the veterinary assessment determines that euthanasia is warranted this is to be undertaken by the veterinarian by administration of the appropriate barbiturate.
- PB52: Any mortality during capture or subsequent handling is to be reported immediately to the Project Officer (Scientific Permits) and a copy of the post mortem results must be forwarded to the Department of Environment and Heritage Protection within 14 business days.

REPORTING

- PB53: A return of operations (Wildlife Data Return and Report) must be submitted to EHP within 14 business days after the end of each 12 month period the permit is in force and within 14 business days after the permit ceases to have effect.

The return is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected.

- PB54: A report on all work undertaken in relation to this permit and a copy of any resulting publication from this research is to be submitted to the Department of Environment and Heritage Protection.
- PB55: This information is to be supplied to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection.

Definitions:

Invasive procedures - For the purposes of this permit 'invasive procedures' are defined as including: examination of tooth wear; urogenital and ocular swabbing; blood sampling including shaving of the forearm; pouch examination; fitting of radio-collars; application of ear tags and micro chipping and all procedures listed in PB41.

Soft release - For the purposes of this permit 'soft release' is defined as being when it has been assessed that a koala would benefit from a period of close examination and is to be released into a soft-release enclosure (i.e. corflute enclosure around the base of a tree). Furthermore, koalas are to be retained within enclosures for at least 1 week, but not more than 2 weeks. Each koala is to be observed from a distance of at least 10m and a minimum of 20 minutes following soft release in order to record behaviour and to ensure the koala has settled in a secure resting position in a tree.

Hard release - For the purposes of this permit 'hard release' is defined as being when it has been assessed that a koala is healthy and above 4kg in total body weight and there is a low chance of wild dog impact, a koala may be released directly into suitable habitat (i.e. NO enclosure).

CTPI 49-Sch4 - Signature

Signed

Date 21/8/12

Michael Devery
Delegate
Department of Environment and Heritage Protection

Appendix 1: Koala processing steps

Prior to capture

1. Set out tarp and equipment in a nearby flat and well-shaded position.
2. Test microchip and record the number on data sheet.

After capture

3. Weigh koala in bag, calculate the Alfaxan dose using the formula:

$$\text{Drug dose (mls)} = (\text{dose rate (mg/kg)} \times \text{body weight (kg)}) / \text{drug concentration (mg/ml)}$$
 Where dose rate = 3mg/kg and Alfaxan concentration = 10mg/ml
4. Apply surgical gloves to all team members involved with processing.
5. Draw up the required volume of Alfaxan.
6. Swab the injection site and administer the required volume of Alfaxan: place needle in sharps bin.
7. Record time of Alfaxan administration on data sheet.
8. Load ear tag into applicator and record number on data sheet.
9. Allow koala to sit quietly in bag cradled between legs for - 5 minutes, regularly checking status and alertness.
10. Assign a condition score (1-10) for the koala and record result on data sheet.
11. Check alertness at 10 minutes and administer top-up Alfaxan if required after 15-20 minutes: place needle in sharps bin.
12. Place koala carefully on its side (out of bag) once adequately sedated. Full general anaesthesia should result in loss of all voluntary movement, absence of palpebral reflex, minimal corneal reflex, absence of response to painful stimuli, and maintenance of reasonably constant respiration rate and heart rate.
13. Commence ongoing monitoring of the anaesthetised koala, through regular observation and recording of depth of anaesthesia and vital signs. Monitor vital signs through assessment of: pulse (rate, rhythm, amplitude and tone) by palpation of femoral or axillary pulses, mucous membrane colour and capillary refill time (oral mucosa) and colour of lips, heart rate and respiratory rate, and rectal temperature. A portable pulse oximeter will also be attached to the koala to assist the measurement of blood oxygen saturation and pulse. Assess and record these observations every 5 minutes.
14. Apnoea or marked slowing/irregularity of breaths may indicate a deepening level of anaesthesia, and warrants increased surveillance of vital signs, if SpO₂ falls below 90%, intervention to stimulate breathing or provide breathing support may be required. Firm rubbing of the chest area or stroking/palpitation of the thorax or costochondral junctions will often help to stimulate breathing.
15. Examine tooth wear to estimate age class and record result on the data sheet.
16. Check pouch and record any evidence of breeding or lactation.
17. Record general condition and any clinical signs of illness.
18. Take ocular and urogenital swabs; label the swab tube with koala ear tag number and place on ice-pack in esky (cooler box).
19. Clip a small area of fur on forearm (no greater than 3cm x 3cm) to collect a blood sample for analysis of general health status. Swab area and insert a 23 gauge needle into cephalic vein to draw - 1ml blood sample and transfer to EDTA tube and prepare a smear on slide.
20. Clip fur on outside and inside of the ear where tag is to be inserted (female in right; male in left), swab and take tissue sample using leather punch. Place tissue sample carefully in 70% ethanol with forceps and label with koala ear tag number.
21. Insert ear tag with shaft coated in Paraderm Plus cream.
22. Clip a small area of fur between the shoulder blades where the microchip is to be inserted.
23. Swab site and insert microchip: place needle in sharps bin.
24. Check radio transmitter, attach collar (ensure that it can slip snugly over head) and record frequency on data sheet.
25. Check that all processing and data sheet entries have been completed.
26. In the case of koalas to be translocated: maintain in recovery position until recovery to light sedation and sternally recumbent. Place koala in sitting position in carry cage for transport by

- vehicle to the designated recipient site for soft-release (40 to 60 minute drive) with regular monitoring on route. Check for full recovery prior to release into enclosure.
27. In the case of koalas to be released in-situ: maintain in recovery position until recovery to light sedation and then place in bag, monitor until assessed as alert for release.
 28. Koalas to be released in-situ should be released at the point of capture once the project supervisor or research officer is satisfied that the koala has fully recovered from sedation.
 29. Monitor koala after release until it has settled in a secure resting position in a tree.
 30. All equipment should be cleaned with alcohol and re-packed.
 31. Hands are to be washed thoroughly with Betadine and rinsed.
 32. Copy of data sheets to be provided to the Department of Environment and Heritage Protection for their records and database.

RTI DL RELEASE - EHP

Appendix 2: Koala monitoring frequency

A. In-situ Conservation Area Treatment Groups:

Stage 1: At least 3 days per week for the first 2 weeks.

Stage 2: At least 2 days per week for the next 6 weeks.

Stage 3: At least 1 day per week for the remainder of the radio-tracking program.

Recapture: Around 11 – 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

B. In-situ Control Treatment Group:

Stage 1: At least 3 days per week for the first 2 weeks.

Stage 2: At least 2 days per week for the remainder of the radio-tracking program.

Recapture: Around 11 - 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

C. Trial Translocation Treatment Groups:

Stage 1: 6 days per week whilst in soft-release enclosures.

Stage 2: At least 3 days per week once outside soft-release enclosure, or if the animal has been hard-released until the koala has re-established a home range in a secure habitat area.

Stage 3: At least once per week.

Recapture: Around 11 – 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

D. Dependent Young Treatment Group:

As dependent juvenile koalas may become independent during the radio-tracking program, suitable independent young may be fitted with lighter-weight 12-month radio-collars. They may be in any of the above treatment groups.

Stage 1: At the same rate as the mother, prior to dispersal.

Stage 2: At least 3 days per week during dispersal, until established in a secure habitat area.

Stage 3: Thereafter, at least once per week at recipient sites and at least 2 days per week at East Coomera.

Recapture: Around 5 months after initial radio-collaring to check and adjust fit required.

Permit¹

This permit is issued under the following legislation:
S12(E) Nature Conservation (Administration) Regulation 2006

Scientific Purposes Permit

Permit number: WISP05591008 (amended)
Valid from: 01-MAY-2012 30-JUN-2014

Parties to the Permit

Role	Name	Address
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Permitted Location Activity Details

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- PB34: Inclusion of any koala in the CHLAMYDIA VACCINE PROJECT is subject to further animal ethics approval and an additional scientific purposes permit.

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- PB40: Veterinary procedures and sampling conducted by Dr J. Hanger are to be undertaken in accordance with Dr J. Hanger's current animal ethics approval and corresponding Scientific Purposes Permit (WISP0782410).
- PB41: Additional veterinary procedures permitted to be conducted by Dr J. Hanger are as follows:
1. Ultrasound – employed to examine the kidneys, ureters, urinary bladder, prostate and reproductive tract.
 2. Blood sampling – a maximum of 5ml for blood samples to allow for all necessary analysis.
 3. Plasma samples – collected from the blood sample.
 4. Bone marrow samples – no more than 20µl collected by bone marrow aspiration from the iliac crest.
 5. Abdominal aspirate – using an abdominal tap to collect no more than sufficient to allow for a maximum of two microscope slide smears.
 6. Urinalysis – using cystocentesis, i.e. locating the urinary bladder using ultrasound and extracting urine through the abdomen using a needle and syringe.

KOALA TREATMENT GROUPS

PB42: Koala treatment groups are defined by the following -

A. In-situ Conservation Area Treatment Groups:

Resident koalas in areas near where introductions are proposed are to be captured, assessed, radio-collared, at the capture site and monitored.

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Koalas from within the Urban Footprint are to be captured, assessed, radio-collared, released at the capture site and monitored.

C. Trial Translocation Treatment Groups:

Koalas are to be captured, assessed, radio-collared and released at the Conservation Area sites. The koalas are to be split into groups of no less than 10 individuals at the four recipient sites.

D. Dependent Young Treatment Group:

Dependent young koalas that are likely to become independent during the radio-tracking program may be fitted with lighter-weight 6-month radio-collars and monitored until they have established a home-range in a secure habitat area.

TRANSPORT

PB43: Koalas must be transported by vehicle in a secure carry cage (adequately comfortable and covered) on the seat of the vehicle and restrained with a seat belt.

PB44: Koalas must be regularly checked and monitored throughout transportation which is to take no longer than 1 hour.

KOALA MONITORING

PB45: All radio tracking devices must be removed prior to termination of the field study, before expiration of this permit and before expected termination of battery life.

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PB47: Koala monitoring frequency is set out in Appendix 2.

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REPORTING

PB53: A return of operations (Wildlife Data Return and Report) must be submitted to EHP within 14 business days after the end of each 12 month period the permit is in force and within 14 business days after the permit ceases to have effect.

The return is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected.

PB54: A report on all work undertaken in relation to this permit and a copy of any resulting publication from this research is to be submitted to the Department of Environment and Heritage Protection.

PB55: This information is to be supplied to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection.

Definitions:

Invasive procedures - For the purposes of this permit 'invasive procedures' are defined as including: examination of tooth wear; urogenital and ocular swabbing; blood sampling including shaving of the forearm; pouch examination; fitting of radio-collars; application of ear tags and micro chipping and all procedures listed in PB41.

Soft release - For the purposes of this permit 'soft release' is defined as being when it has been assessed that a koala would benefit from a period of close examination and is to be released into a soft-release enclosure (i.e. corflute enclosure around the base of a tree). Furthermore, koalas are to be retained within enclosures for at least 1 week, but not more than 2 weeks. Each koala is to be observed from a distance of at least 10m and a minimum of 20 minutes following soft release in order to record behaviour and to ensure the koala has settled in a secure resting position in a tree.

Hard release - For the purposes of this permit 'hard release' is defined as being when it has been assessed that a koala is healthy and above 4kg in total body weight and there is a low chance of wild dog impact, a koala may be released directly into suitable habitat (i.e. NO enclosure).

CTPI 49-Sch4 - Signature

signed

Date 1/5/12

Michael Devery
Delegate
Department of Environment and Heritage Protection

Appendix 1: Koala processing steps

Prior to capture

1. Set out tarp and equipment in a nearby flat and well-shaded position.
2. Test microchip and record the number on data sheet.

After capture

3. Weigh koala in bag, calculate the Alfaxan dose using the formula:

$$\text{Drug dose (mls)} = (\text{dose rate (mg/kg)} \times \text{body weight (kg)}) / \text{drug concentration (mg/ml)}$$
 Where dose rate = 3mg/kg and Alfaxan concentration = 10mg/ml
4. Apply surgical gloves to all team members involved with processing.
5. Draw up the required volume of Alfaxan.
6. Swab the injection site and administer the required volume of Alfaxan: place needle in sharps bin.
7. Record time of Alfaxan administration on data sheet.
8. Load ear tag into applicator and record number on data sheet.
9. Allow koala to sit quietly in bag cradled between legs for - 5 minutes, regularly checking status and alertness.
10. Assign a condition score (1-10) for the koala and record result on data sheet.
11. Check alertness at 10 minutes and administer top-up Alfaxan if required after 15-20 minutes: place needle in sharps bin.
12. Place koala carefully on its side (out of bag) once adequately sedated. Full general anaesthesia should result in loss of all voluntary movement, absence of palpebral reflex, minimal corneal reflex, absence of response to painful stimuli, and maintenance of reasonably constant respiration rate and heart rate.
13. Commence ongoing monitoring of the anaesthetised koala, through regular observation and recording of depth of anaesthesia and vital signs. Monitor vital signs through assessment of: pulse (rate, rhythm, amplitude and tone) by palpation of femoral or axillary pulses, mucous membrane colour and capillary refill time (oral mucosa) and colour of lips, heart rate and respiratory rate, and rectal temperature. A portable pulse oximeter will also be attached to the koala to assist the measurement of blood oxygen saturation and pulse. Assess and record these observations every 5 minutes.
14. Apnoea or marked slowing/irregularity of breaths may indicate a deepening level of anaesthesia, and warrants increased surveillance of vital signs, if SpO₂ falls below 90%, intervention to stimulate breathing or provide breathing support may be required. Firm rubbing of the chest area or stroking/palpitation of the thorax or costochondral junctions will often help to stimulate breathing.
15. Examine tooth wear to estimate age class and record result on the data sheet.
16. Check pouch and record any evidence of breeding or lactation.
17. Record general condition and any clinical signs of illness.
18. Take ocular and urogenital swabs; label the swab tube with koala ear tag number and place on ice-pack in esky (cooler box).
19. Clip a small area of fur on forearm (no greater than 3cm x 3cm) to collect a blood sample for analysis of general health status. Swab area and insert a 23 gauge needle into cephalic vein to draw - 1ml blood sample and transfer to EDTA tube and prepare a smear on slide.
20. Clip fur on outside and inside of the ear where tag is to be inserted (female in right; male in left), swab and take tissue sample using leather punch. Place tissue sample carefully in 70% ethanol with forceps and label with koala ear tag number.
21. Insert ear tag with shaft coated in Paraderm Plus cream.
22. Clip a small area of fur between the shoulder blades where the microchip is to be inserted.
23. Swab site and insert microchip: place needle in sharps bin.
24. Check radio transmitter, attach collar (ensure that it can slip snugly over head) and record frequency on data sheet.
25. Check that all processing and data sheet entries have been completed.
26. In the case of koalas to be translocated: maintain in recovery position until recovery to light sedation and sternally recumbent. Place koala in sitting position in carry cage for transport by

vehicle to the designated recipient site for soft-release (40 to 60 minute drive) with regular monitoring on route. Check for full recovery prior to release into enclosure.

27. In the case of koalas to be released in-situ: maintain in recovery position until recovery to light sedation and then place in bag, monitor until assessed as alert for release.
28. Koalas to be released in-situ should be released at the point of capture once the project supervisor or research officer is satisfied that the koala has fully recovered from sedation.
29. Monitor koala after release until it has settled in a secure resting position in a tree.
30. All equipment should be cleaned with alcohol and re-packed.
31. Hands are to be washed thoroughly with Betadine and rinsed.
32. Copy of data sheets to be provided to the Department of Environment and Heritage Protection for their records and database.

RTI DL RELEASE - EHP

Appendix 2: Koala monitoring frequency

A. In-situ Conservation Area Treatment Groups:

Stage 1: At least 3 days per week for the first 2 weeks.

Stage 2: At least 2 days per week for the next 6 weeks.

Stage 3: At least 1 day per week for the remainder of the radio-tracking program.

Recapture: Around 11 – 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

B. In-situ Control Treatment Group:

Stage 1: At least 3 days per week for the first 2 weeks.

Stage 2: At least 2 days per week for the remainder of the radio-tracking program.

Recapture: Around 11 - 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

C. Trial Translocation Treatment Groups:

Stage 1: 6 days per week whilst in soft-release enclosures.

Stage 2: At least 3 days per week once outside soft-release enclosure, or if the animal has been hard-released until the koala has re-established a home range in a secure habitat area.

Stage 3: At least once per week.

Recapture: Around 11 – 14 months for the scheduled 12-month health check and a minimum of 3 months prior to the expected end of battery life for the radio-collars.

D. Dependent Young Treatment Group:

As dependent juvenile koalas may become independent during the radio-tracking program, suitable independent young may be fitted with lighter-weight 12-month radio-collars. They may be in any of the above treatment groups.

Stage 1: At the same rate as the mother, prior to dispersal.

Stage 2: At least 3 days per week during dispersal, until established in a secure habitat area.

Stage 3: Thereafter, at least once per week at recipient sites and at least 2 days per week at East Coomera.

Recapture: Around 5 months after initial radio-collaring to check and adjust fit required.

Permit¹

This permit is issued under the following legislation:
S12(E) Nature Conservation (Administration) Regulation 2006

Scientific Purposes Permit

Permit number: WISP05591008

Valid from: 01-DEC-2008 to 30-NOV-2012

Parties to the Permit

Role	Name	Address
Principal Holder	Mr John Callaghan	CTPI 49-Sch4

Permitted Location Activity Details

Location (s)	Activity (s)
Non-protected areas - Gold Coast City Council LGA	Research on non-protected areas for scientific purposes

Permit Details

Species Details

Location		Activity	
Non-protected areas - Gold Coast City Council LGA		Research on non-protected areas for scientific purposes	
Common Name	Scientific Name	Category	Quantity
koala (southeast Queensland bioregion)	Phascolarctos cinereus (southeast Queensland bioregion)	Live	130 Animal/s Parts/Products

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service.

Conditions of Approval

Agency Interest: Biodiversity

- PB1 Permission must be obtained from the landholder prior to commencing activities on freehold/leasehold land.
- PB2 All practices and procedures undertaken pursuant to this permit are to be in accordance with those details contained in and attached to the Application for a Scientific Purposes Permit signed by the Principal Holder on 13 May 2008.
- PB3 Any mortality during capture or subsequent handling is to be reported immediately to the Project Officer (Scientific Permits), Environmental Protection Agency, (07) 4699 4366. The Queensland Museum has first refusal of any material resulting from mortality.
- PB4 This permit is issued subject to the Principal Holder holding the current approval of a registered animal ethics committee.
- PB5 This permit (or a copy plus proof of identity of Principal Holder) and a copy of the approved research methodologies must be carried while engaged in any activity authorised by the permit.
- Additional persons authorised to collect under this permit must while collecting
- (a) carry a copy of the permit endorsed by the Principal Holder with the additional persons name and residential address; and
 - (b) carry a form of identification that displays a coloured photograph of the person, such as a Queensland driver's licence.
- Names of additional persons authorised and endorsed by the Principal Holder should be provided in writing to the Project Officer (Scientific Permits) Environmental Protection Agency, PO Box 731, Toowoomba QLD 4350.
- PB6 Environmental impact is to be kept to a minimum.
- PB7 Collecting activities are to be effected away from public view.
- PB8 A return of operations (Wildlife Data Return and Report) must be submitted within 14 days after the end of each 12 month period the permit is in force and within 14 days after the permit ceases to have effect. The return is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected. This information is to be supplied to the Project Officer (Scientific Permits), Environmental Protection Agency, Toowoomba or electronically to SPPreport.southern@epa.qld.gov.au.
- A report on all work undertaken in relation to this permit and a copy of any resulting publication from this research is to be provided to the Project Officer (Scientific Permits), Environmental Protection Agency, PO Box 731 Toowoomba or electronically to SPPreport.southern@epa.qld.gov.au.



- PB9 The Principal Holder must not engage in the activity authorised by this permit for any commercial purpose.
- PB10 All activities must be undertaken in accordance with the provisions of the laws in force from time to time in the State of Queensland. A law shall be taken to be a law in force in the State of Queensland notwithstanding that it applies to only part of the State.

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RTI DL RELEASE - EHP



Scientific research and education purposes permits

Note: Provide justification for the project you propose to undertake.

If the project is proposed for a protected area, provide specific reasons why the activities cannot be undertaken on land other than the protected area estate.

If the project requires the take of wildlife, provide specific reasons why the activities cannot be undertaken on specimens sought from captive populations. All quantities of wildlife to be taken permanently are to be fully justified.

16. Project methodology

APPROVED

WISPO5591008

CTPI 49-Sch4 - Signature

PROJECT METHODOLOGY

Please refer to the attached Experimental Design for further details on the proposed project methodology.

1. KOALA SEARCHES

Koala searches will involve a combination of faecal pellet-based surveys to establish and model koala activity levels across each of the potential recipient sites, strip transect searches and spotlighting during evening work. Faecal pellet surveys will involve application of the Spot Assessment Technique (SAT) (Phillips and Callaghan 1995, as updated; see Attached). SAT surveys will also allow for a quantitative approach to rating koala habitat quality and estimating carrying capacity and will form a component of the annual monitoring program. Strip transect surveys (with reference to Dique et al. 2003) will be the primary method for locating koalas for capture and will involve teams of up to six trained searchers. Strip transects will also form an important component of ongoing monitoring surveys at established monitoring stations.

2. KOALA CAPTURE

All team members will be trained in safe and appropriate koala handling techniques prior to assisting with koala captures. The research team will practice working together in the field covering a range of potential scenarios that may occur during capture attempts. Training will continue until all members are confident and competent in their respective roles and with operating and communicating effectively as a team. The koala capture and processing team will include the project supervisor, the research officer and one or two other trained team members.

Potential captures will be carefully assessed to determine the most suitable capture technique for each situation and the likelihood of success. Risks to both the koalas and the capture team will also be assessed and adequately mitigated. If risks are considered high and unable to be adequately mitigated, a capture will not be attempted. Captures will be conducted using either extendable poles and flags (entirely from the ground or with the assistance of a ladder and/or a certified tree climber as one of the trained capture team), or by using a koala trap. The trap design will involve a standard cage trap inserted into a temporary (Corflute) enclosure surrounding a tree that contains a koala. The traps have been designed by Dr Steven Phillips (Biolink Ecological Consultants) and were successfully employed during koala population assessments undertaken on behalf of Gold Coast City Council in 2006 by Biolink in the East Coomera and Coombabah areas. Traps would be installed prior to dusk and would be checked at regular intervals during the evening and at dawn. Traps will be covered on the top and sides to ensure the koala keeps dry in the event of rainfall between checks. In urgent situations such as where a koala is located in a tree adjacent to a major road, a cherry-picker may be employed. All techniques will be subject to meeting Council training standards and WH&S requirements.

Koalas will generally be captured and bagged at the base of the capture tree or on the ground, rather than physically removing the animal from the tree prior to bagging. Trapped koalas would be released from the trap inside the repositioned Corflute enclosure, captured on the ground and bagged.

Team members will constantly be on the lookout for any signs of a high-level stress response in the koalas during capture attempts. The research team will abandon their capture attempt when a koala cries or exhibits other perceived high level signs of distress, unless the project supervisor or project research officer is confident that a successful capture can be completed within the following 2-3 minutes. If a capture is abandoned on the basis of a high stress response, a further capture attempt on that koala will not be made for at least 24 hours.

3. KOALA PROCESSING

Koalas will be sedated as soon as possible following capture in accordance with a license from Queensland Health for administration of Schedule 4 drugs and prior to invasive procedures including examination of tooth wear, urogenital and ocular swabbing, blood sampling, pouch examination, fitting of radio-collars, application of ear tags and micro chipping. Vital signs (pulse rate, rhythm, amplitude and tone; mucous membrane colour and capillary refill of lips and gums, heart rate; respiration rate; rectal temperature) will be monitored regularly throughout processing of each koala to ensure early detection of any adverse physiological response and to gauge the level of sedation. The project supervisor and research officer have been trained and certified for the administration of Schedule 4 drugs (Alfaxan, Pamlin and Lethabarb) by Dr Jon Hanger (Australia Zoo). Dr Hanger will supervise the drugs administration. Applications have been submitted to Queensland Health for authorities for the project supervisor and research officer to administer Alfaxan and Pamlin for the purposes of koala anaesthesia or sedation in accordance with the provisions of the Health (Drugs and Poisons) Regulation 1996.

Numbered leader-brand plastic ear tags will be obtained from Wildcare Australia, stamped with the Wildcare hotline number to facilitate reporting in case of injury or death. Ear tag and microchip numbers will be included in interim and final project reports to the EPA together with details of each koala.

Ear tag tissue punchlets will be collected immediately prior to ear tagging, stored in alcohol and supplied to Dr Bill Ellis and Deidre de Villiers at the University of Queensland for studies on genetics and retrovirus.

Ocular and urogenital swabs for Chlamydia screening will be forwarded to Professor Peter Timms at The Queensland University of Technology for analysis.

Blood samples will be collected into EDTA tubes and slide smears and forwarded to Dr Jonathan Hanger at the Australian Wildlife Hospital for analysis.

Koalas that show signs of acute disease or very poor condition will be referred for veterinary assessment prior to further consideration for inclusion in the radio-tracking program.

Radio-collars will be fitted with a minimum of 2-3 finger spaces under the collar and will be checked by sliding over the head to ensure the koala could pull out of the collar if it were to become entangled.

The main steps in koala processing will include:

Prior to capture

1. Set out tarp and equipment in a nearby flat and well-shaded position.
2. Test microchip and record the number on data sheet.

After capture

3. Weigh koala in bag, calculate the Alfaxan dose using the formula:
$$\text{Drug dose (mls)} = (\text{dose rate (mg/kg)} \times \text{body weight (kg)}) / \text{drug concentration (mg/ml)}$$

Where dose rate = 3mg/kg and Alfaxan concentration = 10mg/ml
4. Apply surgical gloves to all team members involved with processing.
5. Draw up the required volume of Alfaxan.
6. Swab the injection site and administer the required volume of Alfaxan: place needle in sharps bin.
7. Record time of Alfaxan administration on data sheet.
8. Load ear tag into applicator and record number on data sheet.
9. Allow koala to sit quietly in bag cradled between legs for ~5 minutes, regularly checking status and alertness.
10. Assign a condition score (1-10) for the koala and record result on data sheet.
11. Check alertness at 10 minutes and administer top-up Alfaxan if required after 15-20 minutes: place needle in sharps bin.

12. Place koala carefully on its side (out of bag) once adequately sedated. Full general anaesthesia should result in loss of all voluntary movement, absence of palpebral reflex, minimal corneal reflex, absence of response to painful stimuli, and maintenance of reasonably constant respiration rate and heart rate.
13. Commence ongoing monitoring of the anaesthetised koala, through regular observation and recording of depth of anaesthesia and vital signs. Monitor vital signs through assessment of: pulse (rate, rhythm, amplitude and tone) by palpation of femoral or axillary pulses, mucous membrane colour and capillary refill time (oral mucosa) and colour of lips, heart rate and respiratory rate, and rectal temperature. A portable pulse oximeter will also be attached to the koala to assist the measurement of blood oxygen saturation and pulse. Assess and record these observations every 5 minutes.
14. Apnoea or marked slowing/irregularity of breaths may indicate a deepening level of anaesthesia, and warrants increased surveillance of vital signs. If SpO₂ falls below 90%, intervention to stimulate breathing or provide breathing support may be required. Firm rubbing of the chest area or stroking/palpitation of the thorax or costochondral junctions will often help to stimulate breathing.
15. Examine tooth wear to estimate age class and record result on the data sheet.
16. Check pouch and record any evidence of breeding or lactation.
17. Record general condition and any clinical signs of illness.
18. Take ocular and urogenital swabs; label the swab tube with koala ear tag number and place on ice-pack in esky (cooler box).
19. Clip a small area of fur on forearm to collect a blood sample for analysis of general health status. Swab area and insert 23 gauge needle into cephalic vein to draw ~1ml blood sample and transfer to EDTA tube and prepare a smear on slide.
20. Clip fur on outside and inside of the ear where tag is to be inserted (female in right; male in left), swab and take tissue sample using leather punch. Place tissue sample carefully in 70% ethanol with forceps and label with koala ear tag number.
21. Insert ear tag with shaft coated in Paraderm Plus cream.
22. Clip a small area of fur between the shoulder blades where the microchip is to be inserted.
23. Swab site and insert microchip: place needle in sharps bin.
24. Check radio transmitter, attach collar (ensure that it can slip snugly over head) and record frequency on data sheet.
25. Check that all processing and data sheet entries have been completed.
26. In the case of koalas to be translocated: maintain in recovery position until recovery to light sedation and sternally recumbent. Place koala in sitting position in carry cage for transport by vehicle to the designated recipient site for soft-release (40 to 60 minute drive) with regular monitoring on route. Check for full recovery prior to release into enclosure.
27. In the case of koalas to be released in-situ: maintain in recovery position until recovery to light sedation and then place in bag, monitor until assessed as alert for release.
28. Koalas to be released in-situ should be released at the point of capture once the project supervisor or research officer are satisfied that the koala has fully recovered from sedation.
29. Monitor koala after release until it has settled in a secure resting position in a tree.
30. All equipment should be cleaned with alcohol and re-packed.
31. Hands are to be washed thoroughly with Betadine and rinsed.
32. Copy of data sheets to be provided to EPA for their records and database.

4. KOALA TREATMENT GROUPS

A. In-situ Conservation Area Treatment Groups:

Resident koalas in areas near where introductions are proposed will be captured, assessed, radio-collared, released at the capture site and monitored in accordance with the above protocol. We estimate around five koalas in each of three or four recipient sites.

B. In-situ Control Treatment Group:

A sample of koalas from within the Urban Footprint will also be captured, assessed, radio-collared, released at the capture site and monitored in accordance with the above protocol. We estimate including between 10-20 koalas in the in-situ control group.

C. Trial Translocation Treatment Groups:

We estimate including 80 to 100 koalas in the overall trial translocation program, split into groups of 20-25 at three or four recipient sites.

D. Dependent Young Treatment Group:

Subject to available funding, dependent young koalas that are likely to become independent during the radio-tracking program may be fitted with lighter-weight 6-month radio-collars and monitored until they have established a home-range in a secure habitat area.

Transport

Koalas will be transported by vehicle in a secure carry cage with adequate clean towelling to ensure comfort of the koalas. Carry cages will be covered with a fitted, light-weight cotton blanket so that koalas are kept in a darkened environment. Cages will be placed on the seat of the vehicle and restrained with a seat belt during transportation. Koalas will be regularly checked and monitored throughout transportation, which is estimated to take from 40 to 60 minutes.

Soft Release

Translocated koalas will be released into pre-set (soft release) enclosures, constructed of Corflute material. The enclosures will be placed around at least one or two preferred koala food trees plus other trees in a group with canopy separation from the surrounding trees. The aim will be to retain koalas within enclosures for at least 1 week, but not more than 2 weeks. Each koala will be observed from a distance of at least 10m for ~20 minutes following soft release in order to record behaviour and to ensure the koala has settled in a secure resting position in a tree.

The project will aim to trial four arrangements for soft-release enclosures, in order to establish the practicalities of each approach and to determine in terms of koalas establishing home ranges in the general release area (refer to Section 2.1.4 of the attached experimental design).

5. KOALA MONITORING

All team members undertaking radio-tracking will be trained and certified by the project supervisor as competent in use of the equipment and in koala observation to aid early detection of any potential health concerns.

Monitoring Frequency**A. In-situ Conservation Area Treatment Groups:**

Stage 1: At least 5 days per week for the first 2 weeks.

Stage 2: At least 3 days per week for the next 6 weeks.

Stage 3: At least 2 days per week for the remainder of the radio-tracking program.

Recapture: Around 11 months after initial radio-collaring with 12-month transmitters.

B. In-situ Control Treatment Group:

Stage 1: At least 5 days per week for the first 2 weeks.

Stage 2: At least 3 days per week for the remainder of the radio-tracking program.

Recapture: Around 11 months after initial radio-collaring for 12-month transmitters and at around 22 months for 24-month transmitters.

C. Trial Translocation Treatment Groups:

Stage 1: Daily whilst in soft-release enclosures.

Scientific research and education purposes permits

Stage 2: Daily for the next 4 weeks once outside soft-release enclosures.

Stage 3: At least every second day until the koala has re-established a home range in a secure habitat area.

Stage 4: At least 3 days per week.

Recapture: Around 11 months after initial radio-collaring for 12-month transmitters (and refitting) and at around 22 months for 24-month transmitters.

D. Dependent Young Treatment Group:

Stage 1: At least 5 days per week for the first 2 weeks.

Stage 2: At least 3 days per week for the remainder of the radio tracking program.

Recapture: Around 5 months after initial radio-collaring for 6-month transmitters and refitting if required.

All Monitoring Treatment Groups:

The program will aim to monitor the fate of koalas over at least one, but ideally two, breeding seasons following translocation.

Any necessary recaptures to replace radio transmitters are to be followed by two weeks of radio-tracking at least each second day, and thereafter at least twice per week, depending upon the length of time in the program.

Every possible effort must be made to directly observe each collared koala during each scheduled radio-tracking event in order to assess its welfare and to ensure that collars have not moved from a safe wearing position. It is acknowledged that in some habitats there may be difficulty in observing koalas during every radio-tracking event. If a koala is not clearly visible on a scheduled tracking session, every possible effort should be made to sight the koala during the next session. If the koala does not appear to have moved, the project supervisor or research officer will determine whether there is cause for concern.

If a radio-signal cannot be precisely located for any koala during any scheduled radio-tracking session or if it is considered likely that a signal has been lost, the radio-tracker must make every reasonable effort to locate the koala and to determine its fate. This should include a broad traverse of areas where the koala had been previously located as well as seeking a signal from accessible vantage points within a radius of several kilometres from the koalas known range or previous location.

Radio-collared koalas should be recaptured around a month in advance of the expected transmitter battery life for the purposes of either removing the collar or re-collaring with a freshly activated transmitter. Where appropriate, further Chlamydia swabs and clinical assessment would be undertaken at this stage.

In the event that the radio-tracking protocols cannot be adhered to for a period beyond one week (such as might occur during extreme weather or bushfire conditions), the project supervisor will notify the EPA licensing officer and the DPI&F AEC Coordinator.

6. EUTHANASIA

The following protocol will be applied in the event that a koala requires euthanasia during the course of the research project. It is envisaged that this situation could potentially arise as a result of encountering an animal that is severely debilitated and in obvious extreme pain and distress as a result of trauma from vehicle collision or dog attack or chronic disease.

i. If a koala is encountered that is suffering from major trauma, severe debilitation or acute disease, Wildcare Australia will be contacted immediately and arrangements will be made to deliver the koala as soon as possible for veterinary assessment. If the koala is conscious and considered to be suffering severe pain and distress, a dose of Pamlin (Diazepam) may be administered (in accordance with approvals from Queensland Health) prior to transport for veterinary assessment.

ii. If the veterinary assessment determines that euthanasia is warranted as the humane intervention, this would be undertaken by the veterinarian by administration of the appropriate barbiturate (e.g.,

Lethabarb Euthanasia Injection).

iii. The carcass of a euthanased koala would be disposed of by Wildcare Australia or the attending veterinarian following post mortem in accordance with standard practices.

iv. A copy of the post mortem results will be forwarded to the EPA for their records.

7. POST MORTEM EXAMINATION

Any freshly-dead koalas encountered during the koala research project will be taken to an experienced local veterinarian for post mortem examination. Histological examination would be undertaken if recommended by the veterinarian for a particular case. Any skulls found during the project will be examined for any obvious signs of injury and will be assessed for age at death based on tooth wear. A copy of the results will be forwarded to the EPA for their records.

8. REPORTING

Project Status Reports will be completed every two months following project commencement to completion.

Interim reports to the EPA will be completed and submitted as required.

At the completion of the project, a final project report will be prepared and will include an evaluation of the success of the trial translocation and monitoring program.

A series of collaborative papers will also be prepared for submission to relevant scientific and planning journals and for conference presentation during the third and fourth years of the project.

Note: Provide a detailed summary of the methods to be employed for the proposed project including techniques, apparatus/equipment (including firearms and scheduled drugs), sampling effort including number of wildlife to be sampled, etc. in 200 words or less.

If scheduled drugs are to be used within the project, the applicant must provide documentary evidence indicating authority for them to administer drugs.

17. Measures to minimise impacts (about 100 words)

MEASURES

Impacts on koalas would be minimised by strict application of protocols for koala capture, processing, translocation, release and monitoring throughout the project. Captured koalas would be anaesthetised as soon as possible following capture and would be maintained in this state throughout processing: health assessment, tooth wear examination, pouch examination, swab sampling, blood sampling, micro-chipping, and ear punchlet tissue sampling-tagging.

Koalas would be initially released into temporary soft-release enclosures (singularly or in trial groupings) surrounding a number of preferred food and shelter trees for one or two weeks, and would be monitored and visually assessed on a daily basis prior to being released from the enclosures and radio-tracked. Any koalas that appear not to be coping with the procedure would be re-captured for detailed health assessment by a veterinarian if required, or alternatively would be released from the temporary enclosures early (if considered appropriate) and radio-tracked in accordance with the monitoring schedule. Further intervention would only be undertaken if the koala was subsequently considered to require veterinary assessment and/or treatment, or dispersed from the release site into a high-threat environment or an area of unsuitable habitat.

Potential impacts of koala translocations on flora and fauna (other than koalas) will also be assessed and monitored. Surveys of fauna species with perceived greatest potential to be impacted by koala translocations (i.e. other arboreal mammals) will be conducted using a combination of faecal pellet surveys and spotlighting. These surveys will be undertaken annually in areas with no evidence of recent fires, or at 6-monthly intervals for any areas with evidence of recent fire (i.e. over the past 12 months).

A pest animal monitoring (and management) program will be undertaken in all identified koala translocation

Notice of decision - permit¹ application

This notice is issued by the administering authority to advise of a statutory decision on a permit application.

Mr John Callaghan
Koala Conservation Project Manager Environmental Planning and Conservation for the Chief Executive
Officer
PO Box 5042
GOLD COAST MC QLD 9729

Our reference: 325728

Dear Mr Callaghan

Re: Decision made in relation to your application

Your application received on 10-SEP-2013 has been assessed and the decision in regard to your application is specified below:

Permit applied for	Permit Number	Decision
Scientific Purposes Permit under Nature Conservation (Administration) Regulation 2006	WSP13423213	Granted - level 2

For the permit applied for that has been granted, the conditions of approval are attached. Where applicable, a Statement of Reasons is provided in relation to the decision. Please note that for the approval, this Notice of Decision and the relevant attachments constitute the permit documentation. Please retain this approval documentation for your records.

Included with this notice is advice on review and appeal processes that may be available to you. Should you seek a review or appeal, you are advised to seek independent advice before taking such action.

If you require more information, please contact Jacqui Brock on the telephone number listed below.

Yours sincerely

CTPI 49-Sch4 - Signature

Sally Egan
Department of Environment and Heritage Protection
Date 24/9/2013

Enquiries:

Wildlife - Toowoomba - EHP
PO Box 731
TOOWOOMBA QLD 4350
Phone: (07) 4699 4333
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Attachment - Permit/Statement of Reasons

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation.



Permit¹

This permit is issued under the following legislation:
S12(E) Nature Conservation (Administration) Regulation 2006

Scientific Purposes Permit

Permit number: WISP13423213

Valid from: 01-DEC-2013 to 30-JUN-2014

Parties to the Permit

Role	Name	Address
Principal Holder	Mr John Callaghan	CTPI 49-Sch4

Permitted Location Activity Details

Location (s)	Activity (s)
Non-protected areas - Gold Coast City Council LGA	Research on non-protected areas for scientific purposes

Permit Details

Species Details

Location		Activity	
Non-protected areas - Gold Coast City Council LGA		Research on non-protected areas for scientific purposes	
Common Name	Scientific Name	Category	Quantity
koala (southeast Queensland bioregion)	Phascolarctos cinereus (southeast Queensland bioregion)	Live	260 as already recruited under WISP05591008 Animal/s Parts/Products

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Conditions of Approval

Agency Interest: Biodiversity

- PB1 Permission must be obtained from the landholder prior to commencing activities on freehold/leasehold land.
- PB2 This permit is issued subject to the Principal Holder holding the current approval of a registered animal ethics committee.
- Unless otherwise specified, all practices and procedures undertaken pursuant to this permit are to be in accordance with those details contained in and attached to the Application for a Scientific Purposes Permit signed by the Principal Holder on 10 September 2013.
- Any mortality during capture or subsequent handling is to be reported immediately to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection.
- The Queensland Museum must be given first refusal of any material resulting from mortality.
- PB3 Environmental impact is to be kept to a minimum.
- All collection and handling equipment, items of clothing (including footwear) and vehicles must be cleaned before and after each separate collection activity.
- All equipment (traps, tents, flagging tape, markers etc) and any waste generated during the execution of this research project is to be removed prior to the expiry date of this permit.
- PB4 All collecting activities are to be effected away from public view.
- PB5 This permit (or a copy plus proof of identity of the permit holder) must be carried while engaged in any activity authorised by the permit.
- Additional persons authorised to collect under this permit must while collecting
- (a) Carry a copy of the permit endorsed by the Principal Holder with the additional person's name and residential address; and
 - (b) Carry a form of identification that displays a coloured photograph of the person, such as a Driver's licence.
- PB6 The Principal Holder must not engage in the activity authorised by this permit for any commercial purpose.
- PB7 A Return of Operations and Scientific or Educational Purposes Permit Report must be submitted on the standard reporting forms:
- within 10 business days of the anniversary date of the permit each year the permit is in force; and
 - within 10 business days of the expiry date.
- The return is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected. This information is to be supplied to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection, PO Box 731, Toowoomba or electronically to SPPreport.southern@ehp.qld.gov.au. Please refer to the Wildlife Data Return Guidelines available at www.ehp.qld.gov.au for assistance completing the form.
- A copy of any resulting publication from this research is to be provided to the Project Officer (Scientific Permits), Department of Environment and Heritage Protection, PO Box 731,

Toowoomba or electronically to SPPreport.southern@ehp.qld.gov.au.

CTPI 49-Sch4 - Signature

Signed

Sally Egan
Delegate
Department of Environment and Heritage Protection

RTI DL RELEASE - EHP