Injured/sick/dead kea Response Protocol

Kea Conservation Trust (KCT)

Best Practice Standard -2.0

Contact: info@keaconservation.co.nz

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1.0 Purpose

The purpose of this document is to ensure that i) injured/sick kea are consistently and appropriately assessed, provided with supportive care, transported to receive medical attention and injury reported and ii) dead kea are correctly processed, sent away for post mortem and cause of death recorded in an appropriate database. This is intended to help identify specific threats in local areas which in turn will help with threat mitigation.

2.0 Background

Kea are neophilic – i.e. they love (and are attracted to) anything new in their environment. As a result some have a tendency to interact with humans and human property, often to their detriment. Kea continue to be found dead or injured as a result of illegal shooting/blunt force trauma, vehicle strike, interactions with traps, predation, interaction with high voltage cables and ingestion of baits, heavy metals (lead), and other foreign objects (e.g. rubber, string). Cause and prevalence of injury/death may be related to location and this information is important to capture. To date there has been no consistent procedure for attending to injured/sick kea across the South Island/DOC conservancies and information on who to contact including direction for volunteers has been unclear/difficult to find. Currently DOC's generic wildlife policy states that "only animals with a good chance of making a complete recovery in a reasonable timeframe should be considered for treatment and rehabilitation." However, assessing in the first instance if a kea is likely to make a complete recovery is very difficult and as such it should be encouraged that all injured/sick kea are, at the very least, transported to a veterinarian for assessment and, a decision on the bird's fate made at that time.

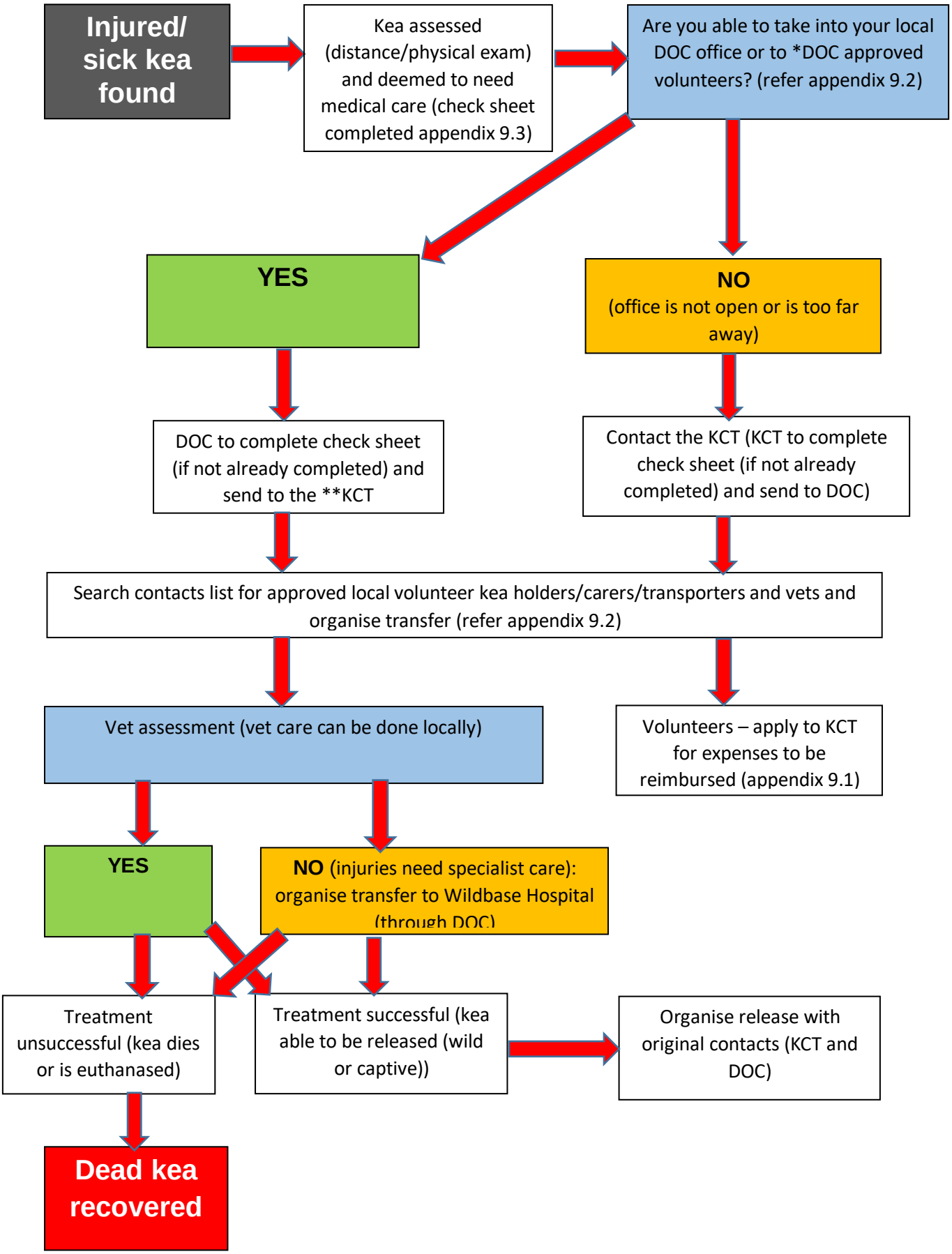
Reporting and recording of kea injuries or deaths (location, number and cause) has also not been centralised to allow for ease of searching.

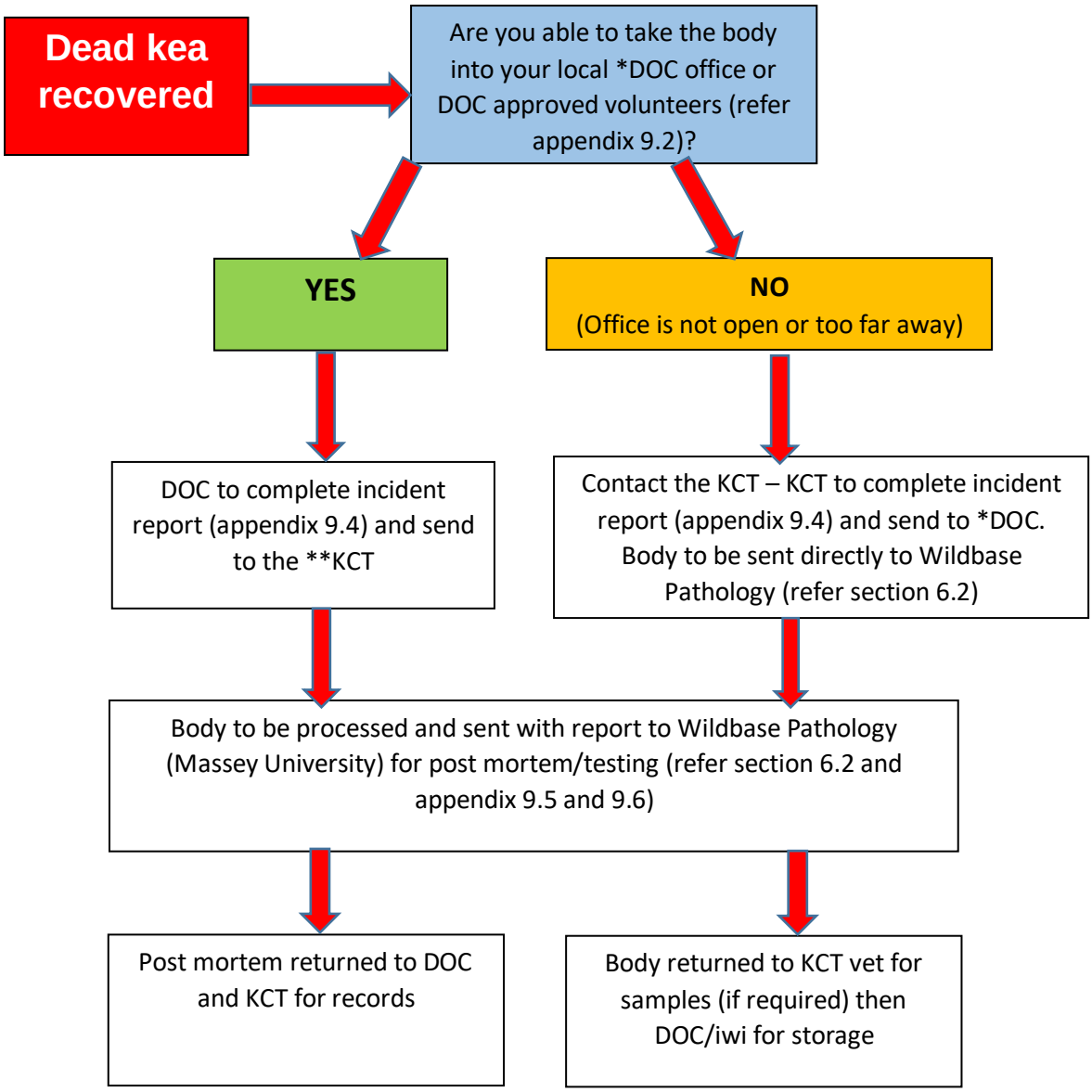
This SOP seeks to develop an information resource to support volunteers who care for injured/sick kea and to enable appropriate and effective recording of incidents for the ongoing benefit of kea conservation.

3.0 Scope

This document will identify 1) process and contacts for helping and reporting injured/sick kea and 2) process for reporting, testing and recording of dead kea. It will also identify any sources of funding required to assist in reimbursement of volunteer expenses. The document also provides basic information on assessment of sick and injured kea, possible reasons and signs of illness/injury and forms for reporting. The information given is not intended to be a complete reference for the treatment of kea, but instead provides support for initial pick up and transport of kea to wildlife veterinary specialists. Further information on assessment and treatment of birds may be found in Morgan, 2008. It is envisaged that this SOP will be expanded as new information becomes available.

4.0 A quick overview: Flowchart - What to do if an injured/sick/dead kea is found





* Department of Conservation

** Kea Conservation Trust

5.0 Injured/sick kea

5.1 Who to contact

Currently there are limited DOC funds to enable injured/sick kea to receive medical treatment. As such, a network of volunteers South Island wide, supporting existing official organisations (DOC, KCT, Wildbase Hospital, Air NZ etc) is vital to ensure kea receive the care they need. Volunteers fall under 3 categories; 1) transporters – people who are prepared to transport injured/sick kea to holders/vets/flights; 2) temporary kea holders – individuals/facilities able to hold kea while awaiting treatment/release or to hold longer term while receiving therapy (eg chelation treatment for lead poisoning) and 3) veterinarians able to administer treatment pro bono (in collaboration with Wildbase Hospital). Volunteers are able to apply for support from the KCT for reimbursement of fuel and consumable items (medical supplies etc). Reimbursement will be dependent on availability of local funds (refer appendix 9.1 for an expenses claims form).
A list of volunteers and official organisation contacts is being compiled and will be added to as new people come forward. This will allow DOC and KCT personnel to search by location and by volunteer category (holder/rehabilitator, transporter, vet). Refer appendix 9.2 for table of current contacts (by category and location). If there are no contacts in your area, please contact the KCT prior to seeking local veterinarian attention.

5.2 Assessment

Any assessment should include 1) collection of the birds history (see 5.2.1), 2) a distance examination (see 5.2.2) and 3) a physical examination (see 5.2.3 and refer to appendix 9.3 for assessment check sheet (for a more thorough assessment, refer to Morgan, 2008)).
Any kea brought in for treatment (whether veterinary assistance is required or not), should be colour banded before release for easy identification.

What does a healthy kea look like? A healthy kea will be bright and quickly responsive to visual and audio stimulus, stand with weight evenly distributed on both feet, move all limbs freely and with a balanced gait and have sleek, glossy plumage. Weight range c.700g-1kg (gender dependent - males are heavier than females).

A kea which displays physical and behavioural responses opposite to the above may be in serious trouble. It is important to note that a bird displaying obvious signs of distress or shock is likely in a dire situation. This is due to the 'preservation reflex' in birds which refers to the fact they will mask any signs of illness to reduce unwanted attention of predators or possible rejection by their flock (Cannon 1991, cited in Morgan, 2008). Signs of distress/shock include unresponsiveness, mouth gaping and shallow, rapid respiration. If a kea has been captured easily by a member of the public its condition is potentially life threatening.

5.2.1 History – A detailed history should first be taken from the person who has found the bird. Questions should include the following:

- Where and when was the bird found?
- What was it doing at the time?
- What did it do in response to being approached and caught up?
- Has it been offered any food/water (and has it consumed any)?
- Has it passed any droppings and if so how did they look (amount, colour and consistency)?
- Has it received any first aid care or medications?

5.2.2 Distance examination

If the kea has not been caught and only presumed unwell, it is important that a distance examination is carried out to ascertain whether the bird needs to be caught for a physical exam. This

should be undertaken prior to any contact being made so that the bird's behaviour is not altered due to attempted capture and handling stress. Some birds may be unable to be caught despite injuries or illness. Where possible, note as much of the following as you can and take photos of any obvious lesions. A distance examination should check any obvious identification marks, mental status, posture, gait, respiration, state of plumage and any obvious wounds. Results should be recorded on check sheet (appendix 9.3):

- Identification marks: Is the bird banded? If so provide details. Does the bird have a transmitter attached?
- Mental status: Is the bird bright, alert and reactive to stimuli? quiet and dull? moribund?
- Posture: Is the bird standing? If so, is it standing evenly on both legs? Is it using its bill for balance?
- Flight: Is the bird trying to fly but can't?
- Wings: Is the bird holding it's wings in a normal position? Is one or both wings drooping or primary feathers dragging on the ground?
- Gait: Is the bird moving normally?
- Respiration (this should be barely visible): Is the bird open-mouth breathing or exhibiting exaggerated respiratory effort? Can respiratory noise or click be heard on inspiration/expiration?
- Eyes, nostrils, cloaca: Is there any discharge? If so what colour? Signs of diarrhoea? Are eyes closed or partially closed? Is there any cloudiness in eyes? Are the pupils of even size?
- Feathers: Is there any obvious damaged or misshapen feathering? Are feathers fluffed up? Are any matted feathers or bald patches evident?
- Wounds: Are there any obvious signs of injury (fresh or dry blood, cuts, open wounds)?
- Body symmetry (ie each side of the body should look the same as the other): Are there any clearly damaged, missing or misshapen parts of the body?

5.2.3 Physical examination – this should only be performed by an experienced bird handler, veterinary nurse, or veterinarian.

For a full description and demonstrations of avian physical examination please see Module 4 at: http://www.doc.govt.nz/wildlife-health-course

A methodical head to feet examination should generally check for the following:

- Any asymmetry
- Wounds/haemorrhages/swellings/ bruises (note: bird bruises often appear green)
- Missing, broken or matted feathers
- Body condition (muscle condition on birds breast bone (keel)) and weight
- Presence of external parasites
- Bones and joints – any abnormal movement or noise (crepitus)

5.3 Common injury types recorded in kea and their signs

5.3.1 Non-specific signs of ill health include:

- unable to stand, fly or move freely
- moderate to severe weight loss (underweight, with a prominent keel bone)
- poorly kept feathers
- decreased activity
- increased respiratory effort or rate
- diarrhoea or change in colour of the faeces

5.3.2 Signs of shock may occur following any severe injury, severe chronic disease, blood loss or severe dehydration.

- dull responses or non-responsive to stimuli
- weakness
- open mouthed breathing/ gaping
- shallow or rapid breathing
- cool body temperature

5.3.3 **Trauma** – cases of blunt (e.g. from impact injuries) or direct trauma have been recorded in kea as a result of vehicle strike; gun shot; electrocution; traps; predators; or other blunt force (e.g. someone hitting the bird).

Signs - The kea is likely to be in shock and be unable to stand or move freely. Injuries may include broken bones, open wounds, bleeding, internal injury, haematomas (large internal blood clot) and/ or bruising. Bleeding from the ears, nose, mouth may occur. Bones or joints may move abnormally and make a grating/popping noise (crepitus). In some cases bone may be protruding from the wound. The bird may look asymmetrical.

5.3.4 **Ingestion of foreign objects** – such as rubber, string, insulation, plastic etc. This may cause an internal blockage resulting in the bird being unable to digest food or causing internal damage.

Signs – The kea may be underweight with breast bone (keel) pronounced. Depending on severity (length of time or internal damage), the bird may be in shock. No or scant faeces are passed. Urates (white portion) and urine (clear portion) may still be passed. Occasionally, vomiting may be present. Vomiting may not be obvious but may result in food being sprayed around the bird or found on top of the bird's head.

5.3.5 **Poisoning** – from heavy metals (lead, tanalised timber), toxic gas (e.g natural gas) and/or poison baits. Depending on the type and amount of poison absorbed, poisoning may be acute (severe and sudden onset) or chronic (long-term) and result in internal haemorrhaging, respiratory distress, kidney failure or general body organ failure.

Signs – The kea may be underweight (chronic poisoning such as with heavy metals), have unkempt plumage, be lethargic, have paresis (partial paralysis) or be ataxic (e.g. unsteady or wobbling gait). In some cases the kea may vomit or exhibit signs of shock. In acute cases the bird the bird may be in good body condition (weight normal, plumage good) but be vomiting, ataxic, unconscious and/ or show signs of shock.

5.4 Catching and temporary containment

If the kea is in a serious condition then catching may be a straightforward case of picking the bird up (being sure to carefully restrain the wings). If the kea is injured but still alert then this should be carried out by approved personnel using approved catch techniques (please contact DOC or KCT personnel listed in the appendix 9.2).
Once the kea is caught up, it should be kept in a cool, quiet, dark box/carry cage with a non-slip floor and good ventilation. Access to water should be provided at all times. Food may consist of cut fruit (apple, pear, banana), carrots, nuts and grains (parrot mix or similar). Peanut butter (crunchy or smooth) is a good emergency food to offer (Gartrell pers comm, 2016).

A record of all food and water consumed should be included in the history.

5.5 Getting veterinary treatment

Once the kea has been caught and contained, transport should be organised as soon as possible, to enable transfer of the bird to a kea approved vet for a full assessment. A decision can then be made by the vet, on treatment required, whether to send on to Wildbase Hospital or the Nest at Wellington Zoo for specialist treatment (refer volunteer vets contact details in appendix 9.2) or if the bird is unlikely to recover, euthanasia. If the kea is to be sent to Wildbase Hospital, they should be contacted and Air NZ transport to the North Island organised via the local DOC office contact (refer appendix 9.2). Please note that any transport box used will have to comply with airline requirements (Gartrell pers comm, 2016). Details of IATA approved transport boxes (which can safely contain kea), can be found in appendix 9.7). The assessment check sheet/injured-sick kea report form should also be sent with the bird (appendix 9.3).

5.6 Safety

The safety of volunteers and kea must be taken into account during each step of this process. It should always be remembered that kea are a wild animal and should be treated as such.

Minimising stress to the injured/sick kea is vital to ensure the best chance of surviving the catch, assessment, transport and treatment process. This may be achieved by minimising handling, ensuring handlers know how to safely handle flighted birds, washing hands before handling to minimise infection, keeping the bird secured in a quiet, dark transport box (refer appendix 9.7 for safe kea containers), ensuring the bird is kept cool (but not cold) and by providing water and, if held for longer periods, food. It is important to note that a bird in shock or very poor condition may need to be kept warmer (22-28C).

The safety of volunteers also needs to be taken into account. Since kea can deliver a powerful bite, handlers should have some knowledge of safe handling techniques for parrots or similar birds. Any wounds received should be promptly cleaned and treated and hands should be washed after handling to minimise transfer of zoonosis'. Ensure transport cages are secured properly during transit and when transporting kea, drive to the local conditions.

5.7 Reporting

To ensure that the maximum information from each bird is gathered and that this information is consistent, a number of forms have been developed (refer appendices for all forms). It is extremely important that all information is documented accurately from the time the kea is sighted (dead or alive) until it is submitted to Wildbase Hospital and/or released back into the wild after successful treatment. This information can then be utilised to identify areas of risk to kea and help in mitigating future risks.

5.8 Reimbursement of expenses

Care of injured/sick kea would not be possible without passionate local volunteers donating their time and resources to the cause. In many cases these volunteers have received little thanks or support whilst developing a valuable level of expertise to support their local kea. To ensure that this process continues, volunteers should be supported and basic expenses (such as fuel for transporters and consumables for vets/rehabilitators) covered where possible.

Please note that an estimate of vet consumable costs should be supplied to the Kea Conservation Trust *prior* to any treatment commencing so that an initial decision on whether the treatment can go ahead can be made. After the volunteer action has been completed a claim form (refer appendix 9.1) should be completed and sent into the KCT for processing. Although payment is not guaranteed, an effort will be made to cover basic expenses with available KCT funds and/or to raise funds as required through Crowd Funding.

5.9 What happens after treatment?

After treatment a decision must be made on the future of the kea. An assessment of the bird will be undertaken by those people involved with its vet care and rehabilitation. If the bird is deemed unable to support itself in the wild, then provision needs to be made for its long-term care in captivity. If the bird is able to be released back into the wild a decision must be made on release location (taking into account the initial threat/s) and follow up monitoring. The KCT and DOC (local or TSO depending on outcome) will be notified on decision (refer appendix 9.2 for contacts list).

Release into captivity – in the event the kea is unable to be released into the wild, then a decision on long-term captive care will be made by the DOC Lead Technical Support Officer (TSO) for kea (refer 9.2 for contacts list) in discussion with the ASMP Captive Coordinator. If the bird is unable to be placed in a suitable facility then a discussion on its future (including possible euthanasia) should be tabled with key stakeholders.

Release into the wild – currently, rehabilitated kea are released back into the area where they were first recovered and local DOC and community contacts notified. Although there is a risk that the birds may be exposed to the same threat which caused their initial illness/injury, it is also recognised that the birds are likely to have a greater chance of survival being placed in an area which is familiar to them (ie to source food, shelter and conspecifics). As threats will have been recorded in the initial assessment and treatment findings and entered into a local threats database, work towards mitigating these threats can be initiated (not within the scope of this document). Initial release should take place away from any known risks (i.e. roadways, powerlines, buildings, human habitation etc) and in favourable weather conditions to maximise success. Birds are to be transported to the release area by volunteers (refer contact list appendix 9.2) in an appropriate transport box.

Where funds allow, follow up monitoring to ascertain survivorship should be put in place. This may to some extent influence where kea are released (i.e. existing monitoring of local kea). Monitoring may be achieved through local sightings (as all rehabilitated birds will be colour banded) or remotely using attached radio transmitters. Please contact the KCT regarding proposed monitoring methods and funding for equipment.

6.0 Dead kea

6.1 Who to contact

If a dead kea is found it should immediately be reported to the local DOC office and the KCT (refer contact details in appendix 9.2). The body should be delivered to DOC so that it can be submitted for post mortem. Ascertaining cause of death may help save other kea from a similar fate.

6.2 Processing the body

A dead kea can provide vital information on local threats to other kea. As such all kea bodies should be dropped off to DOC as soon as possible, so that they can be submitted for post mortem at Wildbase Hospital. If the DOC office is too far away or is closed, refrigerate & send directly to Wildbase (please do not send on Friday or over the weekend as the body is likely to deteriorate in transit (Yong pers comm, 2016)). The three important points to consider when submitting an animal for post mortem are:

- Preservation – chill and dispatch ASAP
- Documentation – ID and specify what you want in the documentation
- Packaging – contain, preserve and protect in transit

Step by step instructions can be found in appendix 9.5 (How to submit a specimen for post-mortem (Massey University). The Huia Wildlife Submission form which is required to be completed and sent with the body, can be found in appendix 9.6.

6.3 Reporting

All reports of kea deaths are being held by a number of organisations including DOC, Wildbase Hospital and the KCT. The Huia Wildlife Submission form will be held in the initial two organisations database, but we also request that a KCT incident report form – dead kea (found in appendix 9.4) be completed and sent to the KCT.

7.0 Acknowledgements

Thank you to the following people who provided input and feedback on this document: Dr Brett Gartrell, Sandy Yong, Dr Kate McInnes, Dr Susan Shannon, Dr Janelle Ward and Dr Lorne Roberts.

8.0 References

Morgan, K.J. 2008. Kiwi First Aid and Vet Care. Department of Conservation. Wellington, NZ.
Captive Wildlife Policy - www.doc.govt.nz/Documents/about-doc/role/policies-and-plans/protected-wildlife-policy.pdf

9.0 Appendix

9.1 Expenses – reimbursement form

Claimant Details	
Name and affiliation	
Address	
Contact Phone	
Date of Claim	
Bank Account	

Claim Details			
Date	**Item (Where was it brought from? What is it? Why was it brought?**	**Budget Code**	**Total Invoice Amount $**
Have you attached all receipts/paperwork?		**Total (incl GST)**	
		Less Cash Advance	
		Total to pay	

Mileage Claim Details					
Date	From	To	For	Distance	Fuel $
				Total to pay	

9.2 Local volunteer contacts list

Name	Category	Contact details	Affiliation	Location
Tamsin Orr-Walker	Official contact person/ Transporter	Email info@keaconservation.co.nz; Ph 0274249594	*KCT	Queenstown
Pete Neale	Transporter		**APWT	Arthurs Pass
Graeme Kates	Transporter		APWT/DOC	Arthurs Pass
Chris Stewart	Official contact person		DOC	Arthurs Pass
Andrea Goodman	Official contact person		KCT	Motueka/Nelson area
Jose Watson	Official contact person		DOC	West Coast
Tracey Dearlove	Rehabilitation	Ph 037534147	***WReNNZ	West Coast
Susan Shannon	Vet/Rehabilitation	Ph 039807554/ 0277520033	****SIWH/Hornby Vets/WReNNZ	Christchurch
Pauline Howard	Vet	Ph 022 106 0170; admin@wildlifehospital.co.nz	SIWH	
Orla Fitzpatrick	Vet	Ph 021456215 Email Orla.fitzpatrick@vetent.co.nz	Vet Ent	Queenstown
??	Vet		Ferrymead Bird & Animal Hospital	Christchurch
Paul Kavanagh	Holder/Rehabilitation		*****KBP	Queenstown
Jennifer Clark	Rehabiliation	034428059	WReNNZ	Otago/Southland
Nick Ackroyd	Holder/Rehabilitation	Ph 03 3596226; email nick@willowbank.co.nz	Willowbank	Christchurch
Meg Rutledge	Holder/Rehabilitation	Email meg@natureland.nz	Natureland	Nelson
Rosalie Goldsworthy	Rehabilitation	Ph 034394033	WReNNZ	Dunedin
Brett Gartrell	Vet (specialist care)	Ph 06 3505329 (hospital) / 021241 3086 (BG mobile)	Wildbase Hospital	Palmerston North
Baukje Lenting	Vet (specialist care)	Email Baukje.Lenting@wellingtonzoo.com	The Nest – Wellington Zoo	Wellington
Bruce McKinley	Lead TSO	Ph 03 4746939 Email bmckinlay@doc.govt.nz		

* Kea Conservation Trust
** Arthur's Pass Wildlife Trust
*** Wildlife Rehabilitators Network of New Zealand (www.wrennz.org.nz)
**** South Island Wildlife Hospital
***** Kiwi Birdlife Park

9.3 **Assessment check list/injured kea report form** (adapted from Morgan, 2008)

Your name and contact details: _____

Assessment category	Question	Answer	Completed (tick)
History	Where and when was the bird found?		
	What was it doing at the time?		
	What did it do in response to being approached and caught up?		
	Has it been offered any food/water (and has it consumed any)?		
	Has it passed any droppings and if so how did they look (amount, colour and consistency)?		
Distance exam	ID - Is the bird banded? Does the bird have a transmitter attached? If so, provide details (numbers/colour/position).		
	Age – Does the bird have any yellow around its eyes, nose, beak (juvenile)?		
	Mental status - Is the bird bright, alert and reactive to stimuli? Quiet and dull? Moribund?		
	Posture - Is the bird standing? If so, is it standing evenly on both legs? Is it using its bill for balance?		
	Flight – Is the bird able to fly? Is it trying to fly but can't?		
	Gait - Is the bird moving normally? Can it move its wings?		
	Breathing - Is the bird gaping or exhibiting exaggerated respiratory effort? Can respiratory noise or click be heard on inspiration/expiration?		

	Eyes, nose, cloaca - Is there any discharge? If so what colour? Are the eyes closed or partially closed? Are they cloudy?		
	Feathers - Is there any obvious damaged or misshapen feathering? Are feathers fluffed up? Are there matted feathers or bald patches?		
	Wounds - Any obvious signs of injury (fresh or dry blood, cuts, open wounds)?		
	Body symmetry - Are there any obviously damaged, missing or misshapen parts of the body?		
Physical exam (this is a closer, hands on exam and should be brief and gentle to minimise additional stress)	Head – Is there any discharge/damage in eyes, ears, oral cavity, nostrils?		
	Abdomen – Are there any wounds, bruising etc?		
	Wings – Do the wings move freely when manipulated? Is there any abnormal bending or crepitus?		
	Legs/feet – feel the limbs for any fractures or abnormal fluid collecting in joints.		
	Vent – check vent for prolapse, discharge, trauma.		
	Plumage – check for external parasites (can signify chronic illness).		
	Samples – collect blood to test for lead (by trained personnel only with lead testing kit).		

9.4 Incident report form - dead kea

Date of death (where possible) **or recovery of body** (day/mth/yr)							
Location description (eg found in carpark, on side of road, in creek, caught in trap etc)							
Location area (eg Fox Glacier)							
Region (eg West Coast)							
Probable cause of death							
Post mortem report available? *(attach if Yes)*		**Is info in Huia database?**(Y/N)		**Age** (J/SA/A)		**Male or Female?**	
Description of state of carcass (any obvious breaks, is bird wet, presence of blood, faeces etc)							
Band details of recovered kea (if any)							
Transmitter details (if any)							
Who recovered body? (member of the public, DOC staff member etc (name where possible and contact details for follow up)							
Where is body stored?							
Contact details of person entering information into this form (name, email, organisation)							
Unique identifier (post mortem band number) *(office use only)*							

9.5 How to submit a specimen for post-mortem

Massey University – Wildlife Postmortem Service

http://www.massey.ac.nz/massey/learning/departments/centres-research/wildbase/wildbase-pathology/how-to-submit-a-specimen.cfm

How to submit specimens

The three important points to consider when submitting an animal for post mortem are:

- Preservation
- Documentation
- Packaging

Preservation

To be of most benefit, post mortem examination should be performed as close to the time of death as possible. If this isn't possible, place the animal in a refrigerator (approx 4 degrees C) as soon after death as possible, and then send as soon as possible (please don't send over the weekend). Freezing the body interferes with results and should be a last resort. Fixing a body whole in formalin or 70 percent alcohol, or field dissection and submission of fixed tissues for histopathology, are alternatives that can be used in some circumstances.

If you are collecting material into fixatives, remember skin contact and inhalation of formalin is hazardous. The volume of fixative needed is 10 times the amount of tissue you are fixing; for example, 100 g of tissue needs 1 L of formalin. The smaller the piece of tissue the better the fixation; ideally, pieces of tissue should be no thicker than 1 cm to allow for rapid fixation. It is surprising how much information can be gleaned even from fairly decomposed specimens, so do not let a rotten carcass discourage you from submitting it for post mortem.

Documentation

Proper documentation is essential to get the most benefit from the post mortem. The Huia database submission form (PDF file) should be sent with the body or emailed to wildbase@massey.ac.nz or faxed to 06 350 5636. If this isn't possible, please include the following information:

- Animal, tissue or specimen identification (including species, individual's ID)
- Geographical location where animal was found, time of collection (who, what, where, when?)
- Any history you think relevant; for example, previous signs of ill-health, use of toxins/baits in the area. The more history you provide the better
- Any other special requests; our routine practice is to try to establish a cause of death and other intercurrent diseases when a whole body is submitted. You may want to know something else instead of or in addition to these things
- Let us know what you would like us to do with the remains of the body; would you like it returned or disposed of? Let us know if you would like the animal returned for taxidermy purposes as we will need to modify the post-mortem technique

Packaging

To prevent contamination of people and equipment with potentially infectious or hazardous substances, a suitably sized polystyrene foam chilly bin is best. Alternatives can include a cardboard box with newspaper and bubble-wrap protecting the well-wrapped and bagged body. Freezer blocks can be improvised using 500 mL plastic PET drink-bottles—don't quite fill them and put them in your freezer. To contain the body and prevent any leakage, use multiple tear- and puncture-resistant sealed plastic bags, or plastic containers with firmly screwed down tight-fitting lids; don't use glass. Place the submission form in a separate plastic bag.

Send to:
Wildlife Post Mortem Service
Fifth floor
Vet Tower
IVABS

Massey University
Fitzherbert Road
Palmerston North

- Mark the package: Urgent, Perishable or Keep Cool, Do Not Freeze.
- Inform us by email, phone or fax so we know to expect a parcel
  Email: wildbase@massey.ac.nz
  Phone 06 350 4525
  Fax 06 350 5636
- The Huia database submission form (PDF file) can be included with the animal's body and/or emailed/faxed to the above contacts
- The following courier companies are recommended:
  NZ Couriers
  Tranzlink

In summary:

- Chill and dispatch ASAP
- Identify and specify what you want in the documentation
- Contain, preserve and protect in transit by appropriate packaging

9.6 Huia Wildlife Submission form (for post mortem of dead kea)

http://www.massey.ac.nz/massey/fms/NZ%20Wildlife%20Health%20Centre/huia_submission_form.pdf

WILDLIFE SUBMISSION FORM

Forwarding Instructions

This animal is the property of the Department of Conservation. Please send a copy of test results to: Wildlife Mortality Database Manager, c/- Pathobiology, IVABS, Massey University, Private Bag 11-222, PALMERSTON NORTH

Submitter Details

Surname: _____
First name: _____
Organisation: _____
Address/Box: _____
Suburb: _____
City/Town: _____
Phone (bus.): _____
Phone (home): _____
Mobile: _____
Fax: _____
Email: _____

Submission Details

Date submitted: _____/_____/_____ Submitter ref: _____
Date found: _____/_____/_____ Number dead: _____
Number at risk: _____ (In-contacts) Number sick: _____

Mortality

Date animal died: _____/_____/_____

Death circumstances:

- Found dead ☐
- Found alive and died ☐
- Treated and died ☐
- Capture or release ☐
- Infertile ☐
- Euthanased ☐
- By-catch ☐

Specimen Details

Animal Details

(Please use separate page for additional animals)

Species/common name: _____
Animal ID: _____
Identification type: _____
(Leg band, microchip implant, ng tag, attoo toe clip etc.) _____
Individual name: _____

Sex: Male ☐ Female ☐ Unknown ☐
Age Classification: Adult ☐ Subadult ☐ Juvenile ☐
Neonate ☐ Foetus ☐ Embryo ☐ Egg ☐

Date of birth/mating: _____/_____/_____

Age/incubation/gestation: _____ _____ _____ _____
period / period Years Months Weeks Days

Where born/hatched Wild ☐ Captivity ☐

Weight: _____gm/kg

Location Type

Wild

- Mainland National Park ☐
- Mainland Reserve ☐
- Mainland Private Land ☐
- Maritime Park ☐
- Island ☐
- Coastline ☐
- Sea ☐
- River ☐
- Other: _____ ☐

Captive

- DoC Facility ☐
- Private Breeding Facility ☐
- Rehabilitation Facility ☐
- Zoological/Wildlife Park ☐
- Other: _____ ☐

Location name: _____
Conservancy: _____
Description: _____

☐ Poisons are being used in the area. Please include details of the toxin.

_____

☐ Special requirements for disposal of body parts, e.g. return to submitter for iwi requirements, genetics, or forward to Te Papa etc.

Please state details of which body parts required and invoice submitter for carrier costs.

_____

History

Include any information which you think may be relevant to this case.

Previous health history:

Clinical signs; external examination; individual treaments; abnormal behaviours (feeding, reproductive, agnostic); breeding history; diet with any changes; exposure to toxins; translocation details; previous clinical pathology (attach relevant reports).

_____
_____
_____

Environmental Conditions (including climate):

Enclosure substrate/size/type; group treatments; in-contacts; clutch details if relevant - sire ID/name, dam ID/name, number of eggs, egg lay interval, season number, season clutch number, incubation temperature and humidity.

_____
_____
_____

Copntinue over leaf

Invoice Instructions

Invoice: Submitter ☐ National Wildlife Surveillance Fund ☐

(Refer to 'Guidelines for the use of the National Wildlife Surveillance Fund' for eligibility on the WILDLIFE HEALTH PAGE - WGNCR-37176)

9.7 Safe kea transport container details