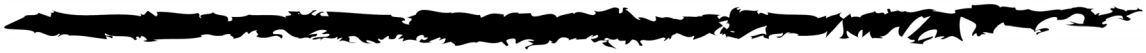
Draft Code of Practice for Injured, Sick and Orphaned Protected Fauna



NSW GOVERNMENT

Environment, Climate Change & Water

Published by:
Department of Environment, Climate Change and Water NSW
59 Goulburn Street
PO Box A290
Sydney South 1232
Phone: (02) 9995 5000 (switchboard)
Phone: 131 555 (environment information and publications requests)
Phone: 1300 361 967 (national parks information and publications requests)
Fax: (02) 9995 5999
TTY: (02) 9211 4723
Email: info@environment.nsw.gov.au
Website: www.environment.nsw.gov.au

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Contents

1. Introduction

1.1. Purpose

The Code of Practice for Injured, Sick and Orphaned Protected Fauna (the Code) is designed to ensure the welfare of native fauna which is unable to survive in the wild.

The Code does this by describing:

- **standards,** which are the actions required to achieve an acceptable level of animal welfare. These standards are the minimum requirements that must be followed by licensed rehabilitators.
- **guidelines,** which are best practice based on accumulated experience and scientific data. They also provide guidance on aspects of human health and safety.

1.2. Definitions

1.2.1. Protected fauna

Protected fauna is defined in the *National Parks and Wildlife Act 1974* (NPW Act) as any amphibian, reptile, bird and mammal with the exception of animals listed in Schedule 11 of the Act. For the purposes of this Code, protected fauna includes all native vertebrate fauna except fish.

1.2.2. Fauna rehabilitators

Fauna rehabilitators are individuals and authorised members of incorporated organisations and zoological parks who have been licensed by the Department of Environment, Climate Change and Water (DECCW) under Section 120 of the NPW Act to rescue, hold and release protected fauna for the purpose of rehabilitation.

1.2.3. Fauna rehabilitation

Fauna rehabilitation is the temporary care of injured, sick or orphaned fauna with the aim of successfully releasing it back into the wild.

1.2.4. National parks estate

National parks estate is any area reserved or dedicated under the NPW Act – nature reserves, national parks, state conservation areas, Karst conservation reserves, Aboriginal areas, historic sites and regional parks. National parks estate also includes Crown land, reserved under the *Crown Lands Act, 1989,* for which the Director-General of DECCW has management responsibility as trustee.

1.3. Supervision and responsibility

This section details how the Code fits into the state's legislative and regulatory framework and explains the responsibilities of stakeholders in relation to the Code.

1.3.1. The Department of Environment, Climate Change and Water (DECCW)

DECCW has the statutory responsibility for the protection and care of fauna in NSW as articulated by the NPW Act. This includes licensing persons to

rescue, hold and release protected fauna under Section 120 of the NPW Act. DECCW has the power to apply terms and conditions to a licence which are legally binding on the licensee. Compliance with this Code is a condition of all fauna rehabilitation licences.

1.3.2. The New South Wales Wildlife Council (NWC)

The NWC is the peak body representing the State's wildlife rehabilitators. It is responsible for developing, maintaining and up-dating standards in relation to the care of sick, injured and orphaned protected fauna. It has the right to specify terms and conditions of membership to the Council.

1.3.3. Fauna rehabilitation organisations

Fauna rehabilitation organisations have a legal obligation to ensure their members comply with the conditions of the NPW Act. They are also responsible for ensuring their members comply with the standards in this Code and for providing regular training and education.

1.3.4. Species coordinators

Most fauna rehabilitation organisations have coordinators to supervise the activities of rehabilitators. Their responsibilities include guidance, support and compliance.

1.3.5. Individual fauna rehabilitators

The majority of wildlife rehabilitators (> 99%) are authorised to care for and release protected fauna by a licensed fauna rehabilitation organisation. The remainder are authorised under individual rehabilitation licences. Rehabilitators are responsible for meeting the standards, aiming to achieve the guidelines, keeping their skills and knowledge current and undertaking ongoing self-assessment.

2. Rescue

Objective

Animal rescues must be safe for the people involved and carried out so as to avoid further stress and injury to the animal. Rescuers must not take any action which places their life or anyone else's life at risk.

2.1. Standards

2.1.1. Rescuers must assess the environmental hazards of a situation prior to attempting to rescue the animal and take steps to minimise the risks. Hazards may include traffic, bushfire, flood, high winds and cliffs.

2.1.2. Rescuers must assess the dangers posed by the animal and only attempt to rescue species they have been trained to handle. Dangers may include injuries and disease caused by bites, scratches, blows and envenomation.

2.1.3. Rescuers must wear safety clothing appropriate for the rescue and be trained in its use.

- Rescuing snakes requires closed footwear and long trousers.
- Rescuing flying fox requires thick gloves, long sleeves and protective eyewear.
- Rescuing large birds requires protective eyewear.
- Rescuing wombats with sarcoptic mange requires a body covering (e.g. plastic apron).
- Rescuing animals on or near a road requires a high-visibility vest.

2.1.4. Rescuers must employ the correct rescue equipment for the type and size of animal and be trained in its use.

2.1.5. Rescuers must only attempt to rescue an animal when a sufficient number of trained personnel for that animal's species and size are involved.

2.1.6. Rescuers must record the location of the rescue so that an appropriate release site can be chosen.

2.2. Guidelines

2.2.1. Rescuers should only attempt to rescue an animal if it

- is exhibiting signs of injury or disease, or
- is behaving abnormally, or
- is well outside of its natural range, or
- is in imminent danger of dying.

2.2.2. Rescues near roads can be particularly dangerous. Rescuers should endeavour to increase their visibility by parking their vehicle away from obstructions and turning on hazard lights. Where possible, a person should be watching for vehicles during the rescue.

2.2.3. Rescuers should monitor healthy nestling and fledgling birds rather than attempt to rescue them. Birds at risk of attack from domestic or feral animals may be protected by placing them in a nearby tree or by erecting temporary fencing.

2.2.4. Rescuers should take steps to protect animals from additional stressors, such as onlookers, loud noises, other animals and extremes of temperature, during rescue.

Note: Licence holders are responsible for educating themselves and their authorised members about appropriate safety clothing, rescue equipment and potential hazards associated with rescuing animals.

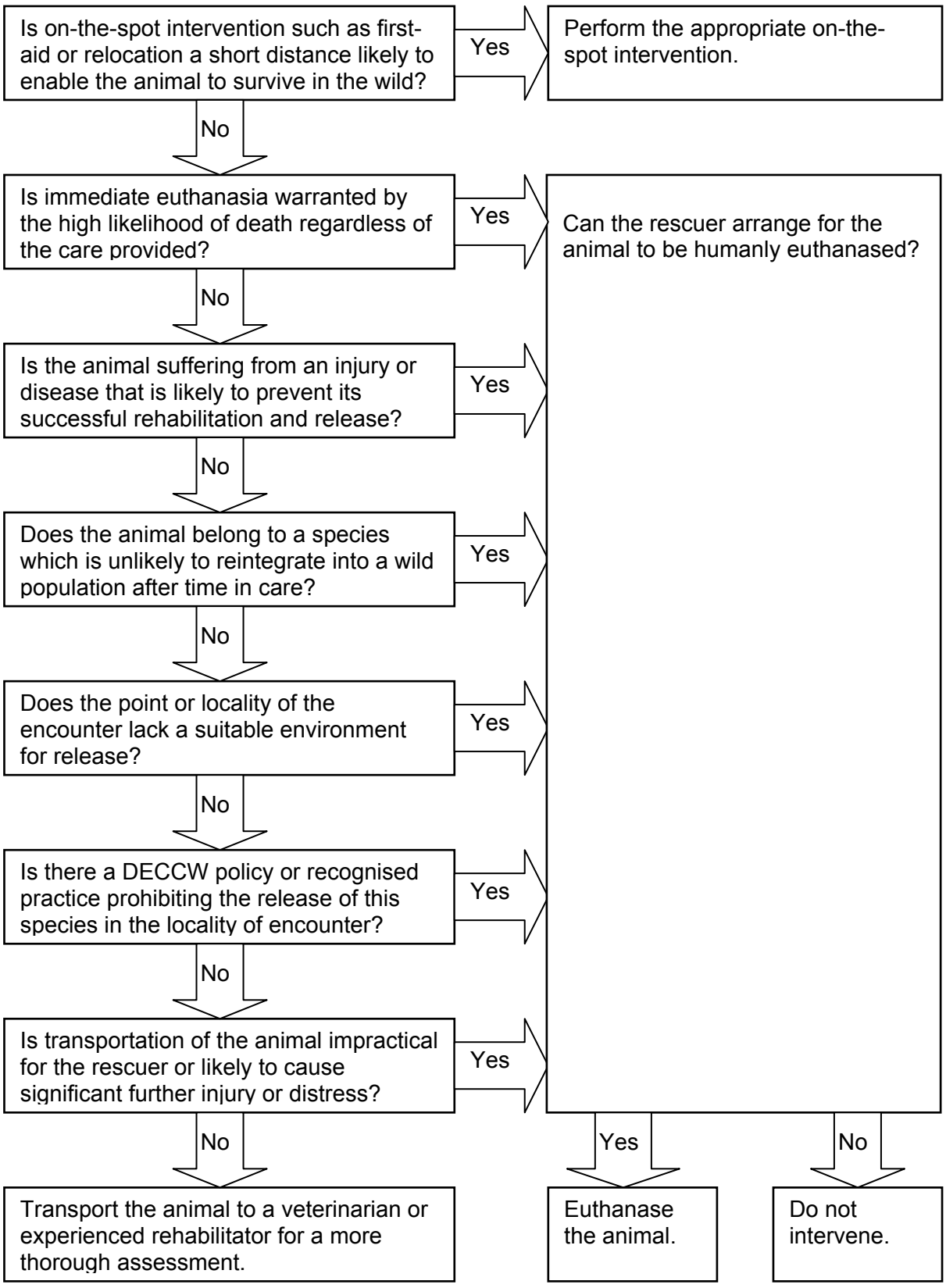
3. Initial assessment

Objective

Injured, sick or orphaned animals must be assessed on rescue to determine the necessity for and type of intervention. The primary objective of rehabilitation is the successful reintegration of animals into the wild population and all decisions must be informed by this goal. This will mean that some animals need to be euthanased.

3.1. Standards

The following decision tree must be followed when an injured, sick or orphaned animal is encountered:



4. Transport

Objective

Transport of animals must be safe for the people involved and carried out so as to avoid further stress and injury to the animal. This section applies to all movement of fauna including from the point-of-rescue to a veterinary surgery and between rehabilitation facilities.

4.1. Standards

4.1.1. Transport methods and container sizes must be appropriate for the species, size, strength and temperament of the animal.

4.1.2. Containers must be designed and set-up to prevent injuries to the animal. This may involve padding walls and covering floors with a non-slip, non-ingestible, tangle-free surface.

4.1.3. Containers must be designed to prevent the animal from escaping.

4.1.4. Containers must be kept at a temperature which is appropriate for the species and age of the animal.

- A range of 25 – 27^{o}C is appropriate for most species and ages.
- 31^{o}C is appropriate for unfurred joeys.
- 21^{o}C is appropriate for echidnas.

4.1.5. Containers must be ventilated so air can circulate around the animal.

4.1.6. Containers must exclude light, noise and vibrations and prevent contact with young children and pets.

4.1.7. Containers holding snakes and bats must have a warning label that says ‘DANGER – live snake’ or ‘DANGER – live bat’.

4.1.8. Animals must not be transported in the back of uncovered utility vehicles or car boots.

4.2. Guidelines

4.2.1. Adult animals should not be fed or watered during trips lasting less than a few hours. Dependent young may require feeding during shorter trips.

4.2.2. The use of medication to facilitate transport should be approved by a veterinarian.

4.2.3. Animal transport should be the sole purpose of the trip and undertaken in the shortest possible time.

5. Euthanasia

5.1. When to euthanase

Objective

Euthanasia is the induction of death with minimal pain and distress. It is a valid option when death is inevitable, or full recovery is doubtful; or the likelihood of successful reintegration into the wild population is remote; or the animal poses an unacceptable health risk to wild animals.

5.1.1. Standards

Table 1. Standards for determining when to euthanase wildlife

Type of animal	An animal must be euthanased when any of the following apply:
All	• death is inevitable, regardless of the treatment provided • it is reasonably suspected to be carrying an incurable disease that may pose a health risk to wild animals • the location of encounter is not known or there is no suitable environment available in the locality of encounter (see Section 10.2 Release site selection) • an injury or disease has occurred or a procedure has been undertaken that will render the animal sterile.
Birds	• a wing is missing or will require amputation • a foot or leg is recently missing or will require amputation • a wing, leg or foot is injured to the extent that normal flight or locomotion will never be regained • a wing, leg or foot is injured and requires an orthopaedic procedure (e.g. pinning) which will involve a recovery period longer than 3 months • it is a passerine, raptor or owl with a missing rear toe • it has a recent injury to one or both eyes to the extent that vision will be significantly impaired or lost • its beak is damaged to the extent that self-feeding is not possible (prosthetics must not be used as they are ineffective) • It has an injury that will require intensive care in a hospital cage for more than 2 months.

Type of animal	An animal must be euthanased when any of the following apply:
Reptile & Amphibian	• a limb is recently missing or will require amputation and this will severely limit locomotion/swimming • it is suffering from an injury or disease that means full mobility is not expected to return within 4 months. An exception may be made provided that rehabilitation is undertaken according to a written management plan endorsed by a veterinarian. • it has a recent injury to one or both eyes to the extent that vision will be significantly impaired or lost • it is a turtle with a major crack in its carapace and/or plastron involving displaced or missing segments.
Mammals (all)	• more than one limb is missing or a limb will require amputation • a limb is missing or permanently damaged and this is reasonably suspected to be impairing the animal's ability to survive in the wild • a leg or foot is injured and requires an orthopaedic procedure (e.g. pinning) that will involve a recovery period longer than 3 months • it is suffering from an injury or disease that means full mobility is not expected to return within 3 months. An exception may be made provided rehabilitation is undertaken according to a written management plan endorsed by a veterinarian • it has a recent injury to one or both eyes to the extent that vision will be significantly impaired or lost.
Mammals (arboreal)	• it is a species with a prehensile tail and the tail is either missing or requires amputation of more than 10% of its length • it is an adult suffering from exudative dermatitis to the extent that recovery is not expected within 2 weeks.
Mammals (macropods)	• the tail is injured to the extent that normal locomotion is permanently impeded.

5.1.2. Guidelines

5.1.2.1. Very young animals with little prospect of being successfully hand-reared should be euthanased.

5.1.2.2. Very old animals with little prospect of survival in the wild should be euthanased. Advanced tooth wear is often a useful indication of old age.

5.2. How to euthanase

Objective

An effective euthanasia method will produce a rapid loss of consciousness followed by death.

5.2.1. Guidelines

5.2.1.1. Rescuers should arrange for a veterinarian to perform euthanasia. Intravenous barbiturate overdose is an appropriate euthanasia method for most species.

5.2.1.2. In exceptional circumstances, when a non-veterinarian is required to perform euthanasia, a method appropriate for the species and circumstances should be employed to ensure minimal pain and suffering. This may include:

- shooting for large animals
- inhalation of carbon dioxide or stunning followed by cervical dislocation for small birds and mammals
- stunning followed by decapitation and destruction of the brain for reptiles and amphibians.

5.2.1.3. The following euthanasia methods should not be used on any animal:

- suffocation via drowning, strangulation or chest compression
- freezing or burning
- carbon dioxide produced from household products
- carbon monoxide via car exhaust
- poisoning with household products
- air embolism
- exsanguination or decapitation without prior stunning
- electrocution
- microwave irradiation
- chloroform, cyanide or strychnine
- neuromuscular blocking agents.

5.2.1.4. An animal that requires euthanasia should not be exposed to additional stressors such as large numbers of onlookers, people touching it, loud noises or extremes of temperature.

5.2.1.5. The person euthanasing an animal should consider the sensitivities of onlookers.

Note: The *Veterinary Practices Act, 2003* places restrictions on the types of procedures non-veterinarians can perform on animals.

The *Poisons and Therapeutic Goods Act, 1966* places restrictions on the types of poisons people can posses.

The *Firearms Act, 1996* specifies animal welfare as a genuine reason for having a firearms licence.

5.3. Disposal of carcasses and animal waste

Objective

Correct waste disposal procedures will help to minimise the risks of disease transmission.

5.3.1. Standards

5.3.1.1. Death must be confirmed prior to disposal of the carcass. The absence of a heart beat and the loss of corneal reflexes indicate death has occurred.

5.3.1.2. Carcasses and organic waste suspected of disease contamination or that have been exposed to chemicals (e.g. barbiturates) must either be incinerated or buried at a depth that will prevent scavengers from reaching them.

5.3.2. Guidelines

5.3.2.1. Carcasses of protected fauna should not be fed to other animals.

Note: Local councils have by-laws regulating the disposal of animal carcasses and waste.

6. Care procedures

6.1. Case assessment and monitoring

Objective

While undergoing rehabilitation, the recovery and eventual release of the animal must always be the principle consideration. The type and frequency of monitoring will vary with the species, type of injury or illness and required treatment.

6.1.1. Standards

6.1.1.1. Rescuers must arrange for animals to be assessed by a veterinarian or experienced wildlife rehabilitator within 24 hours of rescue to ensure accurate diagnosis and prompt treatment. If this is not possible due to the remoteness of the location, expert advice must be sought via telephone or email.

6.1.1.2. Dependent young, seriously ill animals and recently injured animals (i.e. within the past 2 weeks) must be monitored at least every four hours and weighed at least once per day.

6.1.1.3. Independent young, slightly ill animals and animals recovering from injury must be monitored at least once per day and weighed at least once per week.

6.1.1.4. Rehabilitators must record the weight of animals in their care so changes can be quickly identified.

6.1.1.5. Rehabilitators must regularly monitor the temperature within enclosures containing thermal support (e.g. blankets, hot water bottles and electric heat mats).

6.2. Controlling disease transmission between animals

Objective

It is critically important to prevent the spread of diseases among animals undergoing rehabilitation. Stressed animals are more susceptible to contracting and expressing infectious diseases.

6.2.1. Standards

6.2.1.1. Newly arrived animals must be isolated in separate areas until their disease status can be determined by a veterinarian or experienced rehabilitator.

6.2.1.2. Animals suspected or known to be carrying an infectious disease must be kept under strict quarantine conditions throughout their rehabilitation. Signs of disease may include coughing, sneezing, abnormal breath sounds, discharge from the eyes or nose and diarrhoea.

6.2.1.3. Dedicated cleaning equipment must be used for enclosures housing animals with a suspected or confirmed infectious disease.

6.2.1.4. All enclosures, cage furniture, food and water containers must be thoroughly cleaned and disinfected between animals.

6.2.1.5. Animals undergoing rehabilitation must be prevented from coming into contact with domestic pets.

6.2.1.6. Rehabilitators must wash their hands thoroughly with soap or disinfectant before and after handling any animal in care.

6.2.2. Guidelines

6.2.2.1. When handling multiple animals, rehabilitators should start with the youngest and healthiest and finish with the oldest and sickest to reduce the risks of disease transmission.

6.2.2.2. Different species undergoing rehabilitation should be kept in separate enclosures at all times.

6.2.2.3. When animals are housed together, care should be taken to avoid overcrowding and minimise aggressive interactions.

6.2.2.4. A program of pest control is recommended for all rehabilitation facilities.

6.3. Controlling disease transmission from animals to humans

Objective

A number of diseases can be transmitted between animals and humans (these are called zoonoses). Disease can pass to humans by inhalation of infective droplets or dust; by ingestion of contaminated food or water; by penetration of skin through bites or scratches; or by absorption through mucus membranes. Many of these diseases can cause serious illness and some are potentially fatal. Rehabilitators should institute procedures to minimise the risks of contracting a zoonotic disease.

Some diseases associated with animal care include:

- Bacterial – salmonellosis, tuberculosis, leptospirosis, yersiniosis, pasteurellosis, psittacosis, Q fever and tetanus.
- Viral – Australian bat lyssa virus, Menangle virus and Hendra virus.
- Fungal – thrush, ringworm and aspergillosis.
- Parasitic – cryptosporidiosis, scabies, lice, fleas, ticks and roundworms.

6.3.1. Standards

6.3.1.1. Rehabilitators who work with bats must be vaccinated against the Australian bat lyssa virus.

6.3.1.2. Rehabilitators must maintain a high level of personal hygiene by wearing clean clothes and boots and using protective equipment such as gloves and masks.

6.3.2. Guidelines

6.3.1.1. Rehabilitators should familiarise themselves with the infection pathways and signs associated with zoonoses.

6.3.1.2. All cuts and abrasions from animals or enclosures should be immediately treated with soap and water followed by iodine and a protective bandage.

6.3.1.3. Rehabilitators who suspect they have contracted zoonoses should immediately seek expert medical advice. If the diagnosis is confirmed, rehabilitators should notify their group.

6.3.1.4. Precautions with respect to food should include:

- packaging human food separately from animal food if both are being stored in the same location
- storing human food in a different refrigerator/freezer from animal carcasses
- eating and drinking away from animals, animal food preparation areas and animal waste storage areas.

6.3.1.5. Rehabilitators should be vaccinated against tetanus and Q fever as handling native fauna increases the risk of contracting these diseases.

Note: People with lower or under-developed immunity (e.g. children, the elderly and pregnant women) are at a greater risk of contracting a zoonotic disease.

7. Husbandry

7.1. Food and water

Objectives

An appropriate feeding and watering regime will encourage rapid recovery, support growth in juveniles and assist with the maintenance of foraging behaviour necessary for survival in the wild.

7.1.1. Standards

7.1.1.1. Clean, fresh drinking water must be available at all times and changed daily.

7.1.1.2. Water containers must be designed and positioned so as to avoid spillage and contamination and must be appropriate for the species, size, age and mobility of the animal.

7.1.1.3. If bathing water is required, it must be in a separate area from drinking water.

7.1.1.4. Animals must be provided with a balanced and complete diet that supports growth and development and is appropriate for the species, size, age, mobility and physiological status of the animal.

7.1.1.5. Natural food, which is available in the wild, must form the basis of the animal's diet.

7.1.1.6. Hand-reared mammals must be fed a milk formula that is appropriate for the species and age

7.1.2. Guidelines

7.1.2.1. Food should be weighed and compared to the animal's weight gain.

7.1.2.2. Food in storage should not be accessible to pets, pests and wild animals and should be protected from contamination and nutritional loss.

7.1.2.3. Rehabilitators should refer to species-specific Codes of Practice for information on appropriate diets.

Note: Section 24 of the *Prevention of Cruelty to Animals Act, 1979* details certain defences against prosecution for cruelty to animals. One defence concerns the release of live vertebrate prey to feed a predatory animal. A person can only do this if the prey forms part of the predator's diet and they believe on reasonable grounds that the feeding of live prey to the predatory animal is necessary for the predatory animal's survival because it will not eat a dead animal or meat from a dead animal. Rehabilitators are encouraged to contact the Animal Welfare Branch of the Department of Industry and Investment for further information.

The use of wild-caught animals as food for fauna in care poses a disease and poisoning risk.

7.2. Hygiene

Objectives

Maintaining clean rehabilitation facilities will help to contain and prevent diseases.

7.2.1. Standards

7.2.1.1. Faeces and uneaten food must be removed on a daily basis and disposed of so that it cannot be consumed by other animals (e.g. in closed garbage or compost bins).

7.2.1.2. Food and water containers must be cleaned and the substrate replaced on a daily basis. Cleaning involves the use of water, a detergent and the physical removal of all residues.

7.2.1.3. Enclosure furniture, bedding, weighing bags and pouches must be cleaned when soiled.

7.2.1.4. Animals must be cleaned when soiled with faeces, urine or uneaten food.

7.2.1.5. All enclosures, cage furniture and food and water containers must be thoroughly cleaned and disinfected between animals.

7.2.1.6. Rehabilitators must minimise the disturbance to animals when cleaning.

7.2.2. Guidelines

7.2.2.1. Equipment used for cleaning animal enclosures, containers and furniture should be separate from those used domestically.

7.2.2.2. Rehabilitators should wash their hands and clean all food preparation surfaces and equipment prior to preparing animal food.

8. Housing

8.1. General requirements

Objectives

Animals undergoing rehabilitation must be housed in enclosures that keep them safe, secure and free from additional stress.

8.1.1. Standards

8.1.1.1. All reasonable steps must be taken to ensure enclosures are escape-proof.

8.1.1.2. Housing must be made safe for animals to live in by excluding hazards that might harm them.

8.1.1.3. Housing must be designed and/or positioned so as to protect the animals from physical contact with wild animals and pests.

8.1.1.4. Housing must be designed and/or positioned so that animals cannot see, hear or smell domestic pets. The failure to recognise pet species as predators will preclude rehabilitated animals from being released into the wild.

8.1.1.5. Housing must be designed so rehabilitators can safely work in it and access animals.

8.1.1.6. Housing must be positioned so animals are not exposed to strong vibrations, noxious smells (e.g. wood smoke) or loud noises (e.g. radios and televisions).

8.1.1.7. Housing must be constructed from non-toxic materials that can be easily cleaned and disinfected.

8.1.1.8. If different species are kept within the same enclosure, they must be compatible and their respective needs must be met.

8.1.1.9. If multiple animals are kept within the same enclosure, there must be sufficient space for individuals to avoid undue conflict with cage-mates.

8.1.2. Guidelines

8.1.2.1. Enclosures should be at least the size specified in Appendix A for that species and stage of rehabilitation. These floor dimensions are based on the average size of adults. Smaller individuals (e.g. juveniles) may not require the space specified and larger individuals may require more space.

8.2. Intensive care housing

Objectives

Intensive care housing is designed to restrict activity for a short period of time to facilitate frequent monitoring, treatment, feeding and re-hydration.

8.2.1. Standards

8.2.1.1. Intensive care housing must provide sufficient space for the animal to maintain a normal posture (e.g. stand upright) and to stretch its body and limbs, but not enough space to run, jump or fly.

8.2.1.2. Intensive care housing must provide a constant temperature appropriate to the species, age and nature of the illness or injury. If an artificial heat source is provided, animals must be able to move to a cooler section of the enclosure.

8.2.1.3. The temperature in intensive care housing must be regularly monitored using a thermometer and electrical heat sources must be regulated by a thermostat.

8.2.1.4. Animals in intensive care housing must experience a light-dark cycle that replicates outside conditions. If an artificial light source is used, it must be separate from any artificial heating.

8.2.1.5. Intensive care housing must be designed and/or positioned so that visual and auditory stimuli are reduced (e.g. by covering with towel and placing in a quiet room).

8.2.1.6. Intensive care housing must be adequately ventilated without causing excessive drafts.

8.2.2. Guidelines

8.2.2.1. Birds undergoing intensive care should not be kept in cages with exposed wire as it can cause feather damage.

8.3. Intermediate Care Housing

Objectives

Intermediate care housing represents a transitional stage between intensive care and pre-release housing. Enclosures must be large enough to allow some physical activity while enabling the animal to be readily caught for monitoring or treatment.

8.3.1. Standards

8.3.1.1. Intermediate care housing must provide sufficient space for the animal to move about freely whilst being conveniently sized for capture.

8.3.1.2. If an artificial heat source is provided, animals must be able to move to a cooler section of the enclosure. Electrical heat sources must be regulated by a thermostat.

8.3.1.3. Animals in intermediate care housing must experience a light-dark cycle that replicates outside conditions. This may be achieved by placing the enclosure in a well-lit room or in a sheltered area outside.

8.3.1.4. Perching birds must be provided with multiple perches high enough for their tail feathers to clear the substrate. Waterbirds and seabirds must be provided with a pool of clean water deep enough for swimming and a dry area covered with a soft substrate.

8.3.1.5. Intermediate care housing for reptiles must contain absorbent substrate and a shelter that facilitates natural hiding behaviour. Reptiles that naturally bask must be provided with lighting appropriate to the species' needs (e.g. UV light). Arboreal reptiles must be given climbing opportunities and aquatic reptiles (e.g. turtles) must be given swimming opportunities.

8.3.1.6. Hand-reared wallabies and kangaroos must be exposed to members of the same species or family during the intermediate care stage.

8.3.2. Guidelines

8.3.2.1. Reptiles do not usually require extensive conditioning prior to release and should be suitable for release after an appropriate period in the intermediate care stage.

8.4. Pre-release Housing

Objectives

Pre-release housing gives animals the opportunity to regain their physical condition, acclimate to current weather conditions and practise natural behaviour.

8.4.1. Standards

8.4.1.1. Pre-release housing must provide sufficient space for the animal to move about freely, express a range of natural behaviours and withdraw from undue conflict with cage-mates.

8.4.1.2. Animals in pre-release housing must have some exposure to prevailing weather conditions.

8.4.1.3. Pre-release housing must provide locations where all animals can find shelter from prevailing weather conditions.

8.4.1.4. Pre-release housing must contain habitat that enables the animal to perform a range of natural behaviour.

For example:

- Perching birds require a variety of perches designed to suit the size and habits of the species being housed (e.g. limb-perching and ledge-perching birds).
- Waterbirds and seabirds require a pool of clean water deep enough for swimming and a dry area covered with a soft substrate.
- Possums require branches at various heights with some foliage cover.
- Koalas require at least two tree forks each, which are more than 1.8 m above the ground and more than 0.9 m apart.
- Large kangaroos require open areas and locations for dust bathing.
- Wombats and echidnas require deep, hard-packed substrate for digging.

8.4.1.5. Pre-release housing must be designed and/or positioned so that exposure to humans is kept to the minimum required for monitoring, feeding and cleaning.

8.4.2. Guidelines

8.4.2.1. Birds in pre-release housing should have the opportunity for extended flight (10 wing beats is recommended). This may not be feasible for the larger seabirds; however they should have enough space to flap their wings.

8.4.2.2. Pre-release housing for birds capable of flight should have a double-door entry system.

9. Suitability for release

Objectives

Preparations for an animal's release must start at the time of rescue and continue throughout the rehabilitation process. Rehabilitators must ensure the animal is physically fit and possess the appropriate survival skills prior to its release.

9.1. Standards

9.1.1. An animal must not be released until it is physically ready.

This status has been achieved when:

- it has fully recovered from any injury and/or disease
- its weight and condition (i.e. body score) is within the appropriate range for that species, age and sex
- it has appropriate fitness levels as determined by both passive observation and active assessment (e.g. by encouraging the animal to exercise and noting recovery time)
- its pelage, plumage, scales or skin is adequate for survival (e.g. waterbirds have water-proof feathers)
- it has acclimated to prevailing climatic conditions
- it exhibits salt tolerance (marine species only).

9.1.2. An animal must not be released until it is behaviourally ready.

This status has been achieved when:

- it can recognise, catch and consume appropriate, naturally-available food
- it can recognise and successfully avoid predators (including pets)
- it avoids humans (i.e. not humanised) and is not attracted to sights, sounds or smells that are specific to captivity (i.e. not imprinted)
- it can navigate effectively through its natural environment
- it can recognise and interact normally with other members of the same species (social species only).

9.1.3. An animal's readiness for release must be confirmed by a veterinarian or experienced rehabilitator. In the case of a threatened species, a veterinary assessment is mandatory.

9.2. Guidelines

9.2.1. Animals that manipulate their physical environment (e.g. build nests, dig burrows or construct drays) should exhibit this behaviour prior to release.

10. Release considerations

10.1. Timing of release

Objectives

Animals must be released at a time that minimises stress and maximises their chances of survival in the wild.

10.1.1. Standards

10.1.1.1. Animals must be released at a time of year that facilitates survival and reintegration into the wild population.

For example:

- Reptiles must be released during the warmer months (e.g. spring and summer).
- Juvenile species must be released during their natural dispersal period.
- Insectivorous species must be released during periods of high insect abundance (e.g. spring and summer).
- Migratory species must be released at least one month prior to their typical departure period.

10.1.1.2. Animals must be released when weather conditions encourage high activity levels (e.g. reptiles must be released on warm days or when water temperatures are high). Release during extremes of temperature and storms must be avoided.

10.1.1.3. Animals must be released at a time of day that enables them to immediately investigate their environment. The optimal release time for diurnal animals is approximately one hour after dawn and for nocturnal animals is approximately one hour after dusk.

10.1.2. Guidelines

10.1.2.1. Territorial animals may have occupied a territory prior to coming into care. Such animals should be released before their territory is likely to be re-occupied. The average time for this to occur varies between species.

10.1.2.2. If a social animal is absent from its family group for too long it may not be recognised when it returns and treated as an intruder (i.e. attacked). Such animals should be released before their group is likely to forget them. The average time for this to occur varies between species.

10.2. Release site selection

Objectives

The primary concern when selecting a release site is the impact the release will have on the wild population and the natural environment. The welfare of the rehabilitated animal after release is a secondary consideration.

10.2.1. Standards

10.2.1.1. A rehabilitated or hand-raised animal must be released at the point-of-encounter unless the environment is unsuitable.

An unsuitable environment is one that:

- lacks appropriate habitat or has inadequate food resources
- does not contain conspecifics or is overcrowded with conspecifics, or
- places the animal at a high risk of being injured (e.g. near major roads or domestic animals).

10.2.1.2. If the environment at the point of encounter is unsuitable, the rehabilitated or hand-raised animal must either be euthanased or released in a suitable environment within the locality of the original encounter without transporting it across a geographic or physical barrier that it would not normally cross.

Locality is defined as:

- the East Coast of Australia for seabirds, marine mammals and marine turtles
- within 100 km of the point-of-encounter for mobile terrestrial species such as large kangaroos and flying-foxes
- within 50 km of the point-of-encounter for wombats
- within 10 km of the point-of-encounter, but within the same catchment for all other mammals, birds and reptiles
- within 2 km of the point-of-encounter for koalas
- within the property of the point-of-encounter for brush-tail possums.

10.2.1.3. Amphibians must not be released due to the high risk of transmitting infectious diseases to wild populations (e.g. chytrid fungus).

10.2.1.4. An animal can only be released in national parks estate if

- the animal was originally encountered in that location
- the release has written approval from the relevant Parks and Wildlife Area Manager
- the release complies with the relevant DECCW policies on translocation and environmental integrity.

These conditions also apply to the release of an animal in a location where it might reasonably be expected to enter national parks estate (e.g. on a road or property adjoining a national park).

Note: Rehabilitators who wish to release a rehabilitated or hand-raised animal elsewhere than in the locality of encounter require a translocation approval (s. 132 c of the NPW Act).

10.3. Release techniques

Objectives

Rehabilitators must employ release techniques that facilitate rapid reintegration into the wild population.

10.3.1. Standards

10.3.1.1. Rehabilitators must record the location of the release site.

10.3.2. Guidelines

10.3.2.1. Hand-reared mammals and animals that have been in care for extended periods of time should be provided with temporary post-release support ('soft' release). This may include supplementary feeding, shelter provision or protection from predators.

10.3.2.2. Social animals should be released with conspecifics.

10.3.2.3. Rehabilitators should not release more than six ring-tailed possums and two brush-tailed possums from a single location per year, as increased competition is likely to have a detrimental effect on the existing population.

10.3.2.4. Rehabilitators should arrange for animals to be tagged, banded, and micro-chipped or marked as appropriate for individual identification prior to release.

Note: There is little information regarding the fate of rehabilitated animals after release. This makes it difficult to compare the relative merits of different rehabilitation and release techniques. Rehabilitation groups and individuals are encouraged to develop post-release monitoring programs to determine survivorship. Collaboration with research institutions and government agencies may prove useful in this regard. All research involving protected fauna requires a licence (s. 132 c of the NPW Act).

11. Training

Objectives

Rehabilitators must possess appropriate knowledge and skills to ensure the welfare of animals in their care.

11.1. Standards

11.1.1. Fauna rehabilitation groups must provide regular training for their members.

11.1.2. Training courses must

- address the Standards and Guidelines described in this Code
- focus on what a person can do as a result of completing the program
- have an assessment component.

11.1.3. Rehabilitators must be assessed as competent in the relevant areas before undertaking rescue, rehabilitation or release of particular species.

11.1.4. Training must be accompanied by on-going in-field support.

11.2. Guidelines

11.2.1. Rehabilitators should have an understanding of

- the objectives of fauna rehabilitation
- wildlife ecology (e.g. population dynamics, habitat selection, competition, and predator-prey interactions)
- animal behaviour (e.g. feeding, predator avoidance and social interactions)
- the human health and safety issues associated with fauna rehabilitation (e.g. disease transmission, managing hazardous chemicals and operating in dangerous locations and times)
- how to keep accurate records.

11.2.2. Rehabilitators should be proficient in

- species identification
- animal handling techniques
- first aid for injured animals
- recognising the signs of disease
- animal husbandry.

12. Occupational health and safety

Objectives

Rehabilitators must maintain their care facilities in good order and operate in a manner that protects the health and safety of all those involved.

12.1. Standards

12.1.1. Rehabilitators must establish procedures to safely store and dispose of hazardous chemicals (e.g. bleach and solvents), biological waste (e.g. soiled bandages and bedding) and sharps (e.g. needles and scalpels).

12.1.2. Rehabilitators must have access to on-site hand and clothes washing facilities.

12.1.3. Rehabilitators undertaking animal rescues must wear appropriate safety clothing and use the correct equipment (See Section 2).

12.1.4. Animals, both live and dead, pose a disease risk to humans and must be handled in an appropriate manner (See Section 6.3).

12.2. Guidelines

12.2.1. A first-aid kit, stocked with appropriate equipment (e.g. bandages, antiseptic and eye wash), should be taken to animal rescues and available in rehabilitation facilities.

12.2.2. Rehabilitators should employ the correct techniques for lifting heavy objects and restraining animals.

13. Record keeping

Objectives

Records of animal admissions represent a vital resource for rehabilitation organisations and DECCW. They can be used to develop better treatments, educate rehabilitators and identify state-wide trends in fauna incidents.

13.1. Standards

13.1.1. Licensed groups, zoological parks and individuals must maintain an annual record of all injured, diseased and orphaned protected fauna encountered.

These records must contain the following information:

- encounter (date, location, encounter circumstances and the animal's condition)
- animal (species, sex, age, weight, pouch condition if a marsupial and a unique ID number)
- care (name and location of the initial assessor, name and location of the rehabilitator)
- fate (date, final disposition, location and any permanent marking).

These records must be submitted to the WLMU in an approved electronic format on an annual basis.

13.2. Guidelines

13.2.1. Rehabilitators should record the following additional information at the time of the animal's rescue:

- who discovered the animal (name and contact details)
- when the animal was discovered (time of day)
- any treatment or food provided prior to transport.

13.2.2. Rehabilitators should record the following additional information at the time of the animal's assessment by a veterinarian or experienced rehabilitator:

- details of wounds, injuries, diseases and external parasites
- details of mobility
- details of abnormal behaviour
- recommended management (e.g. euthanasia or treatment).

13.2.3. Rehabilitators should record the following additional information at the time of the animal's entry into a rehabilitation facility:

- standard length measurements
- identifying features if the animal is to be housed communally
- housing (e.g. intensive care, general) (See Section 8. Housing).

13.3.4. Rehabilitators should record the following daily care information:

- details regarding the type and quantity of food/liquid ingested
- weight and length changes (measurement frequency will depend on the type of care provided; see Section 5.4. Monitoring)
- details of treatment (e.g. medication, therapy)
- details of instructions from veterinary practitioners and coordinators
- details of changes to general fitness and behaviour
- details of enclosure cleaning (e.g. quantity and quality of faeces/urine).

13.2.5. Rehabilitators should record the following additional information regarding the fate of the animal:

- if released, details regarding the type of release (hard or soft)
- if released, details regarding the condition of the animal (e.g. weight).

13.2.6. If the death of an animal is suspected to be the result of a serious disease outbreak, the rehabilitator should immediately contact their local NPWS Area Office to ascertain whether tissue analysis or a necropsy is required (see DECCW Policy and Procedures for the Identification and Management of Diseases in Fauna).

13.2.7. When an animal is transferred to another rehabilitator or organisation for any reason, copies of the records to date should be transferred with it.

13.2.8. Rehabilitators should keep duplicates or backups of records to avoid information being lost.

Appendix A: Minimum enclosure size guidelines

Table 1: Guidelines for housing mammals

Type of mammal (Mammals specified below are examples)	Intensive care L x W (m)	Intermediate care L x W (m)	Pre-release L x W (m)	Max no. of animals per pre-release
Small bats (free-tail bats)	0.3 x 0.2	0.5 x 0.5	5 x 3	8
Large bats (flying foxes)	0.4 x 0.3	1 x 0.5	10 x 4	6
Rodents	0.3 x 0.2	1 x 0.3	1 x 0.3	1
Small dasyurids (antechinus and dunnarts)	0.3 x 0.2	1 x 0.3	1 x 0.3	6
Large dasyurids (quolls)	0.4 x 0.3	1 x 1	3 x 2	1
Bandicoots and potoroos	0.4 x 0.3	1 x 1	3 x 2	1
Small macropods (pademelons)	0.7 x 0.5	1 x 1	5 x 3	5
Large macropods (grey kangaroos)	1 x 0.7	5 x 5	30 x 20	10
Small possums (sugar gliders)	0.3 X 0.2	0.6 X 0.3	1 X 1	4
Large possums (brushtail possums)	0.4 X 0.3	1 X 1	3 X 2	2
Wombats	2 x 1	3 x 2	7 x 5	2
Koalas	0.5 x 0.5	2 x 1	4 x 3	2
Echidnas	0.5 x 0.5	1.5 x 1.5	6 x 6	2

Note: L is length and W is width

Table 2: Guidelines for housing birds

Type of bird (Birds specified below are examples)	Intensive care L x W (m)	Intermediate care L x W (m)	Pre-release L x W (m)	Max no. of animals per pre-release
Small passerines, parrots and pigeons (finches and wrens)	0.3 X 0.2	0.6 X 0.45	3 X 2	8
Large passerines, parrots and pigeons (magpies and cockatoos)	0.5 X 0.5	0.9 X 0.9	5 X 2	4
Brush turkeys	0.7 X 0.4	2 X 2	6 X 4	2
Small waterbirds (ducks and grebes)	0.4 X 0.4	0.6 X 0.6	2 X 2	2
Large waterbirds (swans and herons)	0.7 X 0.7	1 X 1	4 X 2	1
Small seabirds (gulls, cormorants and terns)	0.4 X 0.4	0.6 X 0.6	2 X 2	2
Large seabirds (albatrosses and pelicans)	0.7 X 0.7	1.5 X 1	3 X 3	1
Small raptors (kestrels and hobbies)	0.5 X 0.5	2 X 2	4 X 3	1
Large raptors (eagles, hawks and falcons)	1 X 1	3 x 3	6 X 4	1

Note: L is length and W is width

Table 3: Guidelines for housing reptiles

Type of reptile (reptiles specified below are examples)	Intensive care L x W (m)	Intermediate care L x W (m)	Max no. of animals per pre-release
Geckos	0.3 X 0.15	0.45 X 0.45	2
Small skinks (garden skinks)	0.3 X 0.15	0.45 X 0.3	2
Large skinks (blue-tongue lizards)	0.6 X 0.45	0.9 X 0.6	1
Small dragons (jacky dragons)	0.6 X 0.45	0.9 X 0.6	1
Large dragons (water dragons)	0.9 X 0.6	1.5 X 0.9	1
Monitors (lace monitors)	2.4 X 1.8	3.6 X 2.7	1
Small venomous snakes (death adders)	0.6 X 0.3	0.9 X 0.45	1
Large venomous snakes (eastern brown snakes)	1.2 X 0.6	1.8 X 0.9	1
Small pythons (spotted pythons)	0.45 X 0.3	0.6 X 0.45	1
Large pythons (carpet/diamond pythons)	0.9 X 0.6	1.5 X 0.9	1
Small freshwater turtles (eastern snake-necked turtles)	0.6 X 0.3	1.2 X 0.45	5
Large freshwater turtles (broad-shelled turtles)	0.9 X 0.6	2.4 X 1.2	5

Note: L is length and W is width