

Australia's National Zoo Biosecurity Manual Self-audit Checklist

Audit Date:

Auditor's name(s):

Signature(s):

Notes:

1.0 Record keeping, animal identification, staff training and documentation

Record keeping

	Guideline	YES	NO	N/A	Corrective action
Are records permanently maintained for veterinary and husbandry activities concerning individual collection animals, including acquisition and disposition of animals to and from the collection?	G1.1				
If the zoo is managed with different Biosecurity Zones, are records maintained of movement of animals from one biosecurity zone to another?	G1.2				
Are records kept of all significant animal illness and all collection animal deaths?	G1.3				
Is a minimum set of information recorded for each significant animal illness and all collection animal deaths?	G1.4				

Notes:

Animal identification

	Guideline	YES	NO	N/A	Corrective action
Are individual animals permanently identified, with a method such as microchip or tattoo?	G1.5				
Are permanent animal identifications verified whenever possible?	G1.6				

Notes:

Staff training and documentation

	Guideline	YES	NO	N/A	Corrective action
Does the zoo keep a copy of the National Zoo Biosecurity Manual, readily accessible to all staff?	G1.7				
Does the zoo have a more detailed, site-specific document (the Institution's Biosecurity Plan) that encompasses the National Zoo Biosecurity Manual, also readily accessible to all staff?	G1.7				
Do all zoo staff have an appropriate awareness of biosecurity and its importance to the zoo and to Australia?	G1.8				
Do zoo staff working with animals and other staff with biosecurity responsibilities have an appropriate level of understanding of biosecurity risks and management procedures relevant to their work responsibilities?	G1.9				
Do staff receive regular training in the relevant aspects of the National Zoo Biosecurity Manual and the Zoo's site-specific Biosecurity Plan?	G1.10				

Are records of training maintained for the duration of the employment of each staff member?	G1.10				
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Notes:

2.0 Property Management

Inputs and outputs

	Guideline	YES	NO	N/A	Corrective action
Do zoo management and staff working with animals have a good understanding of the major routes for disease and contaminant movement into, from and within, the zoo?	G2.1				
Do zoo management and staff working with animals have a good understanding of work practices which minimise the risk of disease and pathogen movement?	G2.2				
Are all inputs and outputs assessed for potential biosecurity risks?	G2.3				
Does the zoo run a domestic animal (“petting zoo”), and if so, are these animals sourced from low biosecurity risk facilities?	G2.4				
Do domestic (“petting zoo”) animals undergo risk assessment processes?	G2.4				
Are domestic (“petting zoo”) animals housed and managed in ways to minimise the biosecurity risk to other zoo animals?	G2.4				

Notes:

Perimeter security

	Guideline	YES	NO	N/A	Corrective action
Does the property have a secure perimeter fence or otherwise well defined boundary establishing a clearly defined biosecurity zone?	G2.5				
Are entrances to the property able to be closed and locked to vehicle and foot traffic?	G2.6				
Are entrances to the property locked during all non-visitor hours?	G2.6				
Are all animal enclosures appropriately constructed and secured to prevent animal escape?	G2.7				
Is each enclosure individually and permanently identified with a unique name, number or alphanumeric code for identification purposes?	G2.8				
Are all animals housed in appropriate enclosures with a suitable level of enclosure security for the species, including all species listed as either Extreme or Serious Threat species under the Vertebrate Pests Committee Guidelines?	G2.9				
Does the zoo have a written management action plan in the event of an escape or theft of an animal from the institution, including for all species listed as either Extreme or Serious Threat species under the Vertebrate Pests Committee Guidelines?	G2.10				

Notes:

An institution-specific biosecurity plan

	Guideline	YES	NO	N/A	Corrective action
Has the zoo developed and implemented an effective, documented institution-specific Biosecurity Plan?	G2.11				
If the zoo does not have their own Biosecurity Plan, have they implemented all the relevant guidelines within the National Zoo Biosecurity Manual?	G2.11				
Does the zoo have an up-to-date map of the property, showing identified enclosures, service buildings, veterinary and quarantine facilities, food sheds, access roads and gates?	G2.12				

Notes:

Biosecurity zones and compartmentalisation

	Guideline	YES	NO	N/A	Corrective action
Is the zoo property divided into distinct biosecurity zones based on differing levels of biosecurity risk?	G2.13				
Is there an up-to-date map of the property showing the different biosecurity zones?	G2.14				
Is there a written plan, which documents the biosecurity requirements of each zone?	G2.14				
If animals of lower biosecurity risk are housed with animals of higher biosecurity risk, is it assumed that they have a similarly high biosecurity risk profile?	G2.15				

Notes:

Enclosure and ground maintenance

	Guideline	YES	NO	N/A	Corrective action
Are enclosures maintained at an appropriate level of cleanliness for the species, with the aim of minimising biosecurity risk?	G2.16				
Are the zoo grounds (including maintenance and holding areas) maintained at a suitable level of cleanliness?	G2.17				
Are enclosure equipment and furnishings (including enrichment items) managed, using practices aimed at minimising disease and contaminant transmission, so as to minimise biosecurity risk?	G2.18				
Are all enclosures and furnishings cleaned regularly to maintain a level of hygiene appropriate for the species involved?	G2.19				
Are all enclosures adequately drained to prevent accumulation and stagnation of water?	G2.20				
Are enclosures and zoo grounds designed and maintained in a manner which actively reduces access and attractiveness to pest species?	G2.21				
Does water used for cleaning enclosures and waste products, including faeces and urine, not drain into adjacent enclosures, other areas with animal access or waterways?	G2.22				
Is equipment, furnishings and enrichment items dedicated to one enclosure or management area?	G2.23				
If equipment, furnishings and enrichment are moved to different enclosures, are they thoroughly cleaned and disinfected before use in the new area?	G2.23				
Is appropriate consideration and management of biosecurity risks undertaken prior to movement of items from one enclosure to another (e.g. use of faeces of one species for behavioural enrichment of another species)?	G2.23				

Drainage and waste disposal

	Guideline	YES	NO	N/A	Corrective action
Does zoo management have a knowledge of drainage routes?	G2.24				
Does the zoo maintain a map showing drainage routes?	G2.24				
Is water and waste draining from enclosures and holding areas assessed for biosecurity risks?	G2.25				
Does drainage from enclosures not enter other enclosures or management areas or waterways?	G2.26				
Are enclosures adequately drained to prevent accumulation and stagnation of water likely to attract wild birds, especially in the areas around collection waterfowl?	G2.27				
Is substrate removed and replaced as needed to maintain good enclosure hygiene?	G2.28				
Are waste products including substrate, food matter, faeces and other biological products assessed for biosecurity risks before disposal or subsequent use?	G2.29				
Are waste products disposed of in a manner appropriate to the biosecurity risks of the product, species, enclosure and individual?	G2.30				
Does the containment, transport and disposal of waste products and water leaving the property minimise any disease transmission risks?	G2.31				
Are waste products disinfected or destroyed, as necessary, using appropriate methods?	G2.32				

Notes:

Food quality and supply

	Guideline	YES	NO	N/A	Corrective action
Is food offered to zoo animals free from known disease risks?	G2.33				
Does food offered to zoo animals (at a minimum) meet health and hygiene levels applicable to livestock or equivalent domestic animals?	G2.33				
Do food storage, preparation and presentation practices, particularly those concerning food of animal origin, consider and minimise the risks of introduction and spread of infectious disease and contaminants?	G2.34				
Is food stored under conditions (correct temperature and humidity) that minimise spoilage and contamination?	G2.34				
Is feed offered to zoo animals procured, stored, prepared and presented in a manner to minimise or prevent accessibility by pest species?	G2.35				
Is food that has been damaged by pest species or has obvious contamination from pests (e.g. rodent faeces) not fed out?	G2.36				
Are staff trained in appropriate hygiene, including personal hygiene procedures to ensure that hygiene in food preparation areas is maintained at an appropriate level?	G2.37				
Are animal food storage and preparation areas physically separated from other functions such as the animal hospital, animal holding and staff and visitor food preparation areas?	G2.38				
Is food sourced from reliable suppliers with good biosecurity practices, including appropriate pest management?	G2.39				

Are written records maintained of food sources and delivery dates, or of the sources and delivery dates of food which may pose a biosecurity risk?	G2.40				
If the zoo offers whole animal carcasses as food items to zoo animals, do the carcasses undergo a regular assessment process for possible biosecurity risk?	G2.41				
Are carcasses scrutinised by the zoo's veterinary service on a routine or as needed basis?	G2.41				
Are no collection, pest or stray animals which die within the zoo grounds (other than animals specifically culled for feeding out) fed out to collection animals?	G2.42				

Notes:

Water quality and supply

	Guideline	YES	NO	N/A	Corrective action
Is fresh, clean drinking water supplied to all zoo animals	G2.43				
Are bowls and equipment used to provide drinking water to animals should be easily and regularly cleaned?	G2.44				
Are bowls and equipment used to provide drinking water to animals positioned so that the risk of contamination and soiling by animals (including pest species) and vegetation is minimised?	G2.44				
If drinking water for animals from a source other than town water, is the water tested on a regular basis for disease agents and contaminants and treated as appropriate to meet standards suitable for equivalent livestock consumption?	G2.45				
Is the water source itself (e.g. dam, tank or river) inspected regularly for contamination such as carcasses, rubbish, algal blooms etc?	G2.45				
Is water used for cleaning and bathing of zoo animals clean and not containing pathogens or contaminants which pose a health or biosecurity risk to the animals?	G2.46				
Has the effectiveness of the in-house water treatment system been validated before use. The water treatment system should be maintained and serviced on a regular, scheduled basis, with written records of the service and inspection history?	G2.47				
Is the water treatment system maintained and serviced on a regular, scheduled basis, with written records maintained of the service and inspection history?	G2.47				

With in-house water treatment, is there a regular program of testing and recording water quality to demonstrate the effectiveness of the treatment system and is microbiological validation of the efficacy of the treatment system conducted regularly?	G2.48				
Is there regular monitoring and recording of water quality for any aquatic and semi-aquatic zoo animals and is water quality maintained to appropriate levels?	G2.49				
If humans are in direct contact with water bodies used by animals (e.g. interaction with aquatic animals), is water quality closely monitored and maintained?	G2.50				

Notes:

Management of pest species

	Guideline	YES	NO	N/A	Corrective action
Are all zoo enclosures, facilities, waste and rubbish containers designed and maintained to limit access by pest species?	G2.51				
Are all feed storage areas be pest-proof?	G2.52				
Are all feed spills cleaned up immediately?	G2.52				
Is rubbish collected and rubbish bins emptied frequently, and in an appropriate manner to minimise attraction of pest species?	G2.53				
Is food presented to zoo animals offered in a manner to discourage non-target consumption by pest and other species?	G2.54				
Are any materials within the property that may harbour pest species cleaned up on a regular basis and not be allowed to accumulate?	G2.55				
Is a safe and effective program for the control of pest species developed and maintained?	G2.56				
Is a safe and effective trapping and/or baiting program for rodents developed and maintained, if necessary?	G2.57				
Is a staff member nominated as responsible for pest management (prevention and control) within the zoo, with regular training provided?	G2.58				

Notes:

Management of stray and domestic animals

	Guideline	YES	NO	N/A	Corrective action
Are domestic animals prevented from accessing zoo grounds unless they are a part of the zoo collection, they are part of public education programs or they are disability animals (e.g. seeing-eye dogs accompanying their owners)?	G2.59				
If domestic animals are brought to the zoo for rescue or rehabilitation purposes, are they maintained in isolation from zoo collection animals?	G2.60				
Are perimeter fencing and security measures constructed and maintained so as to minimise the opportunity for stray animals to gain access to zoo grounds?	G2.61				
Does the zoo have a documented procedure for the management of stray animals on zoo grounds?	G2.62				
Are any pets living with staff within the zoo confined to the immediate vicinity of the zoo accommodation, without access to zoo grounds?	G2.63				
Does the zoo have a documented protocol for managing disability animals within the zoo?	G2.64				

Notes:

Animal movements within zoo grounds

	Guideline	YES	NO	N/A	Corrective action
Do managers and animal staff consider and manage biosecurity risks before moving animals between enclosures?	G2.65				
Are enclosures cleaned, treated, or left empty for designated periods, if necessary, to minimise biosecurity risks when moving animals between enclosures?	G2.66				
Are rehabilitation wildlife and other non-collection animals (e.g. confiscation cases) entering or leaving the zoo physically separated from collection animals at all times?	G2.67				
Appropriate quarantine procedures undertaken before such animals are permitted to enter the zoo collection?	G2.67				
Are biosecurity risks associated with walking animals outside of enclosures considered and are risk management procedures (e.g. choice of times and routes) documented?	G2.68				

Notes:

Zoo animal facility design and construction

	Guideline	YES	NO	N/A	Corrective action
Does the design and construction of zoo facilities incorporate features that allow for the prevention and management of biosecurity risks?	G2.69				
Are animal enclosures designed and constructed to prevent animal escape, prevent unauthorised access and allow adequate staff and vehicle access?	G2.70				
Are animal facilities, structures and furnishings designed and constructed to allow thorough cleaning and disinfection?	G2.71				
Does drainage from enclosures or holding areas not enter other enclosures or areas that can be accessed by other animals?	G2.72				
Are all zoo facilities, enclosures, food storage and preparation areas, waste and rubbish containers designed and constructed to prevent access and attractiveness to pest species?	G2.73				
Are animal feed containers and dispensers designed to prevent access by pest species?	G2.74				
Are appropriate substrates chosen, that do not harbour or allow the accumulation or growth of disease agents or contaminants and that can be readily cleaned, disinfected or changed as required?	G2.75				
Are enclosures adequately drained to prevent accumulation and stagnation of water likely to attract wild birds, especially in the areas around collection waterfowl?	G2.76				
Are property and enclosure perimeters designed and constructed with the intent to prevent access by stray and pest animals and prevent escape of zoo animals?	G2.77				

Are facilities used for quarantine, hospital, post mortem examination, isolation and holding appropriately designed and constructed?	G2.78				
Do animal facilities have appropriate provision for safe capture and restraint?	G2.79				
Are water filtration and sanitation systems capable of minimising contamination, accumulation and transmission of disease agents and contaminants?	G2.80				
Are animal food storage and preparation areas designed and constructed to facilitate appropriate levels of hygiene?	G2.81				
Does zoo facility design and construction include the appropriate provision of hand washing or sanitising facilities for visitors and staff?	G2.82				
Are wash bays for vehicles and equipment incorporated into animal facility design and construction, if appropriate?	G2.83				
Are moats and water bodies designed and constructed to allow adequate cleaning, disinfection, drainage and avoid stagnation or accumulation of contaminants?	G2.84				
Are display and holding facilities for animals designed and constructed with physical and/or spatial barriers, as appropriate, to manage risk of disease transmission between animals and people and <i>vice versa</i> ?	G2.85				

Notes:

3.0 Work and Hygiene Procedures for staff and visitors

Zoo staff and all personnel working with animals

	Guideline	YES	NO	N/A	Corrective action
Are staff working with animals aware of the risk of disease transmission from their person, their clothing and their footwear to animals and humans?	G3.1				
Do staff working with animals wear a uniform, or other dedicated work clothing while at work in the zoo?	G3.2				
Do staff change out of their uniform or work clothes prior to contact with other animals outside of the zoo?	G3.2				
Do staff working with animals wear only dedicated footwear whilst on zoo grounds?	G3.3				
Is footwear removed, to remain at the zoo site at the end of each work day?	G3.3				
Alternatively, is footwear thoroughly cleaned and disinfected prior to leaving and on re-entering the zoo grounds?	G3.3				
Are zoo management and zoo staff aware of the biosecurity risks associated with wearing footwear outside the zoo grounds, and are there measures in place to strengthen footwear biosecurity practices as needed?	G3.3				
Does the zoo have specific areas or species enclosures designated as “higher biosecurity footwear or practice” areas?	G3.3				
If staff work with zoo or wild animals off-site (e.g. animal shipment, <i>in situ</i> field work), are their uniforms laundered and boots cleaned and disinfected prior to leaving and returning to the zoo?	G3.4				

Does the zoo have documented protocols for minimising biosecurity risks associated with staff and other non-zoo personnel working in close or direct contact with zoo animals, enclosures or animal products?	G3.5				
Are zoo managers aware of all personnel, including staff, volunteers, students, researchers and others who have regular close or direct contact with zoo animals, animal products and animal enclosures?	G3.6				
Are staff working with animals trained and, if necessary, supervised to minimise risk of disease or contaminant transmission?	G3.7				
Are volunteers, students, researchers and other personnel assisting zoo staff with work practices instructed and supervised in their work practices to ensure that appropriate biosecurity procedures are followed?	G3.8				
Do staff working with animals adopt work practices which minimise transfer of organic material and contaminants into or from enclosures, via their footwear, clothing and equipment?	G3.9				
Is equipment used as part of disease investigations, research or surveys outside of zoo grounds cleaned of organic matter and disinfected prior to usage and upon return?	G3.10				
Are staff working with animals aware of biosecurity risks if they have contact with domestic or wildlife outside their workplace and are they encouraged to manage these biosecurity risks through appropriate procedures?	G3.11				
Are staff working with animals aware of the biosecurity risks of visiting multiple different enclosures and animals on a single day and do they adopt work practices which minimise these risks?	G3.12				

Are veterinarians aware of the biosecurity risks of examining multiple animals (some of which may be diseased) and entering different enclosures on a single day?	G3.13				
Do vets assess each circumstance for its biosecurity risks and implement appropriate precautions, including appropriate personal hygiene and management of clothing and footwear?	G3.13				
During time of increased biosecurity risk, are work and hygiene practices altered to minimise associated risks?	G3.14				
During increased biosecurity risk, do staff clean and disinfect footwear when entering or leaving designated management areas?	G3.15				

Notes:

Contractors

	Guideline	YES	NO	N/A	Corrective action
Is the zoo aware of the biosecurity risks posed by contractors entering enclosures for work related matters?	G3.16				
Does the zoo have documented protocols for minimising biosecurity risks associated with contractors who come into contact with zoo animals, enclosures or animal products?	G3.16				
Are contractors working within the zoo restricted from entering enclosures or having contact with zoo animals, unless it is a necessary part of their work?	G3.17				
Are zoo managers aware of all contractors in the zoo whose work requires close or direct contact with zoo animals, animal products and animal enclosures?	G3.18				
Are contractors who are in contact with zoo animals, enclosures or animal products instructed and, if necessary, supervised in their work practices to ensure that appropriate biosecurity procedures are followed?	G3.19				
Is enclosure maintenance by contractors scheduled, where possible, when enclosures are empty of animals?	G3.20				
Are all tools used by contractors in animal enclosures cleaned and disinfected, if necessary, before and after use at the zoo, and between use in different areas of the zoo?	G3.21				

Are contractors working in close or direct contact with animals or their products briefed on the biosecurity risks they may pose to the zoo, and given assistance by zoo staff to determine appropriate measures to manage biosecurity risks?	G3.22				
Has a standard risk assessment and briefing document been developed to help manage contractor risk?	G3.23				
Does the zoo maintain a record of contractors who enter animal enclosures?	G3.24				
Has the entry of delivery personnel into the zoo grounds been assessed for biosecurity risk?	G3.25				
Is there a system in place to allow tracing when delivery personnel enter the grounds (e.g. through delivery dockets and feed company records)?	G3.26				

Notes:

Zoo Visitors

	Guideline	YES	NO	N/A	Corrective action
Are zoo managers aware of the biosecurity risks if the visiting public enter animal enclosures or have contact with zoo animals?	G3.27				
Are Contact Areas and Interactive Programs assessed and managed appropriately for their specific biosecurity risks?	G3.28				
Does the zoo have documented protocols for managing the biosecurity risks associated with visitors (in particular human-animal interaction) in Contact Areas and Interactive Programs?	G3.29				
Are Visitors to Contact Areas and Interactive Programs supervised by a staff member who has been trained in, and has a good understanding of, biosecurity risks and minimisation practices?	G3.30				
Is the level of biosecurity supervision tailored to the risks of the particular circumstances (e.g. greater supervision with children handling reptiles, or visitors holding koalas than with public walking through macropod enclosure)?	G3.30				
Are all staff working in Contact Areas and Interactive Programs trained in, and do they have a good understanding of zoonotic risk and management?	G3.31				
When selecting species and individual animals for use in Interactive Programs, is consideration given to minimising biosecurity and zoonotic disease risks?	G3.32				

Are the individual animals used in Interactive Programs regularly monitored for biosecurity and zoonotic disease risk?	G3.33				
Are staff and visitors participating in Interactive Programs or mobile zoo discouraged from eating, drinking or smoking during the interaction?	G3.34				
Are hand-washing or disinfection facilities available to all participants of Interactive Programs?	G3.35				
Are all participants of Interactive Programs made aware of the hand washing and disinfection facilities and encouraged to practice good personal hygiene?	G3.35				
Do visitors who enter enclosures or have close contact with zoo animals receive a briefing beforehand on the biosecurity risks associated with the visit, as necessary?	G3.36				
Has a standard risk assessment and briefing document been developed to help manage visitor risk around these events?	G3.37				
Has consideration been given to the need of Visitors to wear suitable footwear (robust, enclosed shoes) which can be cleaned and disinfected if necessary, when they enter animal enclosures?	G3.38				
Has consideration been given to the need for visitors who have entered animal enclosures to clean their shoes of organic material and disinfect the soles, using a chemical footbath, prior to leaving the area?	G3.39				

Notes:

Vehicle movement within and outside zoos

	Guideline	YES	NO	N/A	Corrective action
Is the number of vehicles entering and leaving the zoo grounds minimised?	G3.40				
Has the zoo (if there are drive-through enclosures) considered the biosecurity risks of driving vehicles through animal enclosures?	G3.41				
Does the zoo have a documented protocol for managing and reducing risks of driving vehicles through animal enclosures?	G3.41				
Have documented routes been established to minimise biosecurity risks?	G3.41				
Does the zoo have methods to trace all non-zoo vehicles which enter enclosures or transport animals?	G3.42				
If vehicles enter animal holding areas, is any organic matter or gross contamination, especially on wheels, removed prior to entry or exit?	G3.43				
If staff or visiting vehicles need to be brought onto zoo grounds, are they only be driven and parked in designated areas, chosen for their low biosecurity risk?	G3.44				

Notes:

4.0 Zoonotic disease risk management

	Guideline	YES	NO	N/A	Corrective action
Are zoo managers aware of the risks of zoonotic disease spread from zoo animals, enclosures and animal products to staff and visitors?	G4.1				
Has the zoo developed a documented protocol and management policy (seeking the assistance of human health authorities) for minimising zoonotic disease risks to staff, contractors and visitors?	G4.2				
Does the documented protocol and policy address risks associated with direct or close contact with zoo animals, animal enclosures or animal products?	G4.2				
Do staff working in direct contact with animals and their products have documented training in zoonotic disease risk management procedures and access to zoonotic disease minimisation protocols?	G4.3				
Has the zoo (if there is a "petting zoo") referred to and developed biosecurity guidelines based on the government public health documents mentioned on Page 32 of the Manual?	G4.4				
Does the zoo have appropriate hand washing or hand disinfection facilities available for staff and visitors?	G4.5				

Are Visitors coming into direct or close contact with zoo animals and their products encouraged to utilise these hand washing/ disinfection facilities?	G4.5				
Is zoonotic disease awareness and risk management part of the zoo animal collection preventative medicine program?	G4.6				
Has the zoonotic awareness and management program been developed seeking input from a human health professional with knowledge of zoonotic diseases and does it include awareness of anthroozoonotic diseases and their management?	G4.6				
Does the zoo have a staff health (occupational health and safety) program incorporating appropriate hygiene, education, training and procedures regarding zoonotic diseases?	G4.7				
Does the staff health program also incorporate, as necessary, pre-employment health and disease screening, vaccination programs and regular ongoing disease screening for staff placed at risk of zoonotic disease due to their work?	G4.7				
Is suspected or confirmed zoonotic disease in staff or others within the zoo reported (through the Zoo's Occupational Health and Safety system) to zoo management and/or zoo veterinary staff?	G4.8				
If zoo staff are aware, or suspect they have a zoonotic disease, do they advise zoo management of this?	G4.9				

Is a document detailing the risks of zoonotic disease in a zoo setting provided to all staff (and others) who report suspected zoonotic disease, which they can take to their physician?	G4.10				
Are zoo managers aware that the health status of an individual staff member may influence their susceptibility to zoonotic disease?	G4.11				
Are staff members also aware that changes in their health status can alter their risk of zoonotic disease?	G4.11				
Are staff working with animals aware that they may transmit infectious disease to the animals in their care?	G4.12				
Are zoo managers and staff aware of any taxonomic groups or species in their care with increased zoonotic risk potential? See p 33 for examples	G4.13				

Notes:

5.0 Animal Health and preventative medicine

	Guideline	YES	NO	N/A	Corrective action
Has the zoo engaged the services of a suitably qualified veterinarian with relevant experience in the species held?	G5.1				
Is there an arrangement for regular veterinary attendance at the facility (to administer the preventative medicine program)	G5.1				
Does the veterinary service have the necessary professional equipment to deal with zoo animals (e.g. administration of chemical restraint)?	G5.1				
Is there a veterinarian available for emergency response at all times?	G5.1				
Has the zoo established and maintained a documented preventative medicine and health program, under the supervision of the veterinarian?	G5.2				
If the institution is a ZAA member, has the veterinarian been encouraged to become a member of the ZAA Veterinary Specialist Advisory Group list serve?	G5.3				
Is the zoo, or delegate, a member of a linked network that enables rapid access to biosecurity information, such as the ZAA list serve and the AWHN?	G5.4				
Are the veterinarian and key animal management staff familiar with the Australian Animal Welfare Strategy-Exhibited Animals (AAWS), the ZAA Accreditation Standards (for Association member zoos), AUSVETPLAN Zoos Enterprise Manual and the AUSVETPLAN Wild Animal Response Strategy?	G5.5				

Does the veterinarian have knowledge and understanding of the OIE disease list, the National and State/ Territory Notifiable Disease List and any other diseases considered important to Australia's biosecurity?	G5.6				
Is the veterinarian aware of their state/ territory and national disease notification requirements is there a documented protocol for notification?	G5.7				
Are animal management staff aware of their responsibilities for disease notification and are there protocols for informing the Zoo's veterinary service?	G5.8				
Has the veterinarian been involved in developing any biosecurity procedures specific to the zoo?	G5.9				
Does the veterinarian have a good working knowledge of the National Zoo Biosecurity Manual, the zoo's biosecurity procedures and any relevant local requirements with respect to biosecurity?	G5.9				

Notes:

6.0 Quarantine

General quarantine practices

	Guideline	YES	NO	N/A	Corrective action
Have species or circumstance-appropriate quarantine procedures been developed, documented and implemented as required, addressing the details on p37 of the Manual?	G6.1				
Is each animal arriving at the zoo, whether a newly arrived collection animal, wildlife rescue case or confiscation case assessed for biosecurity risk, including zoonotic risk, by the zoo veterinarian or a Competent Keeper with a strong understanding of biosecurity?	G6.2				
Is an appropriate biosecurity management procedure developed for each case with documentation of the procedures if the risks are high, or the procedures vary significantly from standard quarantine protocols?	G6.2				
When animals arrive at the zoo as part of a planned transaction from another zoo, are biosecurity risks and management plans developed between both zoos, prior to the transaction?	G6.3				
Are all biological products arriving at the zoo, such as semen, embryos, feathers and taxonomic preparations, assessed for biosecurity risk, including zoonotic risk, by the zoo veterinarian or a Competent Keeper with a strong understanding of biosecurity, with a biosecurity management procedure established for each case?	G6.4				

Do newly arrived animals or biological products remain in quarantine until such time as their biosecurity risk has been established and mitigated?	G6.5				
Is there adequate and appropriate signage to indicate areas of restricted access and quarantine status?	G6.6				
Are quarantine work practices designed and documented to reduce the risk of cross transmission, introduction, and spread of potential pathogens?	G6.7				
Are all staff working with quarantined animals trained and familiar with the zoo's quarantine management protocols?	G6.8				
Are staff working in quarantine situations trained in the principles and application of barrier keeping?	G6.9				
Are barrier keeping practices applied to ensure effective isolation of rehabilitation wildlife cases and confiscation cases from collection animals?	G6.9				
Does the institution have physically separate, dedicated holding facilities for the quarantine of newly-arrived collection animals?	G6.10				
Where a biosecurity risk is suspected, are sick collection animals and/or their social group physically separated from other collection animals and are appropriate facilities available for this isolation?	G6.11				
If dedicated quarantine or isolation facilities are not available, are protocols for management of newly acquired or sick collection animals implemented to ensure there is no direct or indirect contact between these and healthy collection animals?	G6.12				

If the zoo lacks appropriate facilities for appropriate quarantine of a particular species, has consideration been given to quarantine occurring at another institution with suitable facilities?	G6.13				
If the institution accepts wildlife for treatment and rehabilitation, are these cases housed, in a physically separate, dedicated facility and managed separately from collection animals?	G6.14				
If dedicated wildlife rehabilitation facilities are not available, does the zoo provide an acceptable alternative in low-risk situations to ensure effective isolation of wildlife cases through work practices such as barrier keeping?	G6.14				
If the zoo receives and holds confiscated exotic or native fauna on behalf of regulatory authorities, are these animals, and any equipment used to house or care for them, maintained and managed in strict isolation from all other animals until an appropriate health assessment and quarantine process has been completed?	G6.15				
Do keepers caring for quarantined, isolated, or confiscated animals attend to these animals only after fulfilling other responsibilities for collection animals?	G6.16				
Do keepers caring for quarantined, isolated, or confiscated animals use appropriate barrier keeping practices as needed?	G6.16				
Are equipment and tools used in quarantine areas dedicated for use only within these areas?	G6.17				

Are equipment and tools used in quarantine areas cleaned and disinfected on a regular basis, and at the end of each quarantine period?	G6.17				
Do footwear protocols within quarantine areas follow best possible practices?	G6.18				
Do staff in quarantine areas wear dedicated footwear which is not worn outside the quarantine area?	G6.18				
Is entry/ exit from quarantine areas only made through a footbath containing a suitable disinfectant, used in accordance with manufacturer's instructions, maintained and changed on a regular basis and is there provision for scraping the soles of footwear before dipping to ensure organic material is removed and the disinfectant makes effective contact with the soles of the footwear?	G6.18				
Are disposable footwear covers worn by all staff within the quarantine area?	G6.18				
Are facilities for hand sanitation using an appropriate antiseptic available at the entry/ exit to each quarantine area?	G6.19				
Are hands thoroughly cleaned on entry /exit from quarantine areas?	G6.19				
Are species appropriate quarantine procedures, once established, documented and readily available to staff at all times?	G6.20				
Are waste products, including bedding, food, faeces, urine and water assessed for their biosecurity risk and managed and disposed of, using strict biosecurity practices, during quarantine?	G6.21				

Are biological materials which leave the zoo during the period of quarantine assessed and managed for their biosecurity risk?	G6.22				
If the zoo runs a domestic animal or "petting" zoo, are these animals sourced from low biosecurity risk facilities and does risk assessment occur?,	G6.23				
If the zoo runs a "petting" zoo, are these animals housed and managed to minimise the biosecurity risk to other zoo animals?	G6.23				

Notes:

Veterinary care and investigation during quarantine

	Guideline	YES	NO	N/A	Corrective action
Are animals only allowed to enter the collection after they have undergone appropriate quarantine or disease risk assessment?	G6.24				
Is a plan of health assessment and preventative medicine for the quarantine period developed and carried out under the supervision of the veterinarian or as described in the quarantine protocol?	G6.25				
Are complete medical records maintained for all newly-arrived collection animals during the quarantine period?	G6.26				
Are all newly-arrived collection animals permanently identified during the quarantine period, with any existing identification confirmed?	G6.27				
Are any treatments required determined only by the supervising veterinarian, or by a Competent Keeper in consultation with the veterinarian?	G6.28				
Is the cause of death of any animal that dies during quarantine established wherever possible?	G6.29				
Does every animal that dies during quarantine have a post mortem examination performed under the supervision of a veterinarian, with representative tissues submitted for histopathological examination and other specific diagnostic tests?	G6.29				

Are zoo animals only released to the wild, if deemed as suitable for release as part of rehabilitation or sanctioned recovery programs (with appropriate state/ territory or national authority and permits)?	G6.30				
Are animals only released from quarantine once all examinations and tests have been completed, the health status of the animal is determined and approval is given by the supervising veterinarian?	G6.31				
Is blood collected and serum banked from animals undergoing quarantine, with either a -70°C freezer or a -20°C freezer (without cyclic defrost) should be available to bank sera?	G6.32				

Notes:

7.0 Management of sick animals

Identifying and reporting sick animals

	Guideline	YES	NO	N/A	Corrective action
Are animal staff trained to recognise signs of ill health in animals held in the zoo's collection and to report their findings appropriately to zoo management and/or the zoo's veterinary service?	G7.1				
Is the condition and health of the animals assessed daily by the keepers?	G7.2				
Does the zoo should have a documented procedure for reporting and recording, on a daily basis, all signs of injury or ill health in collection animals?	G7.3				
Is there a reporting mechanism that allows this information to be presented to the veterinary service in a timely manner and a documented process for requesting veterinary assistance?	G7.4				
Do all animals showing signs of illness or injury receive appropriate and timely attention?	G7.5				
Are keepers and other animal staff aware of their limitations in diagnosing and treating disease and do they refer to the zoo's veterinary service for appropriate professional assistance?	G7.6				

Do keepers and other animal staff avoid interpretation of signs of illness, diagnosing disease and prescribe treatment (beyond the limits acceptable to non-veterinary personnel) and does the responsibility for diagnosis and prescribing treatment rest with the zoo's veterinary service?	G7.7				
Is a veterinarian available, including a 24 hour emergency service, to respond to reports of illness or injury in the zoo's animals?	G7.8				

Notes:

Investigation priorities and trigger points

	Guideline	YES	NO	N/A	Corrective action
Are any unexpected and unexplained illness or death of zoo animals (including deaths suspected to be a result of infectious disease) assessed for biosecurity risks to animals and humans, including those outside the zoo?	G7.9				
Are all signs of illness and all deaths in zoo animals reported to zoo management or the zoo's veterinary service, recorded in the zoo's official recording system and investigated by zoo veterinarians or other suitably qualified staff?	G7.10				
Are all unexpected or unexplained illnesses and deaths in wildlife within the zoo grounds reported to zoo management or the zoo's veterinary service, recorded in the zoo's official recording system and investigated by zoo veterinarians or other suitably qualified staff?	G7.11				
Are relevant authorities contacted if there is any suspicion of an emergency disease or an unexplained morbidity or mortality event?	G7.12				
Are any biosecurity risks resulting from a disease incident addressed using an Emergency Biosecurity Response Plan?	G7.13				

Notes:

8.0 Animal deaths, post mortem examination and carcass disposal

	Guideline	YES	NO	N/A	Corrective action
Does the zoo have a documented procedure for the investigation of collection animal deaths?	G8.1				
Does the zoo have a documented procedure for retrieval, storage and disposal of animal carcasses, which minimises biosecurity risks?	G8.2				
Are all collection animal deaths reported without delay to the appropriate authority (either the Zoo's veterinary service or Zoo management)?	G8.3				
Are all deaths of animals within zoo grounds reported on a daily basis to the Zoo's veterinary service or Zoo management?	G8.4				
Are dead animals within the zoo grounds handled and processed (including post mortem examination and disposal) using methods which minimise the risk of disease transmission to animals and people and also reduce any opportunity for scavenging?	G8.5				
Are collection, pest or stray animals which die within the zoo grounds never fed out to collection animals?	G8.6				
Are animals culled within the zoo grounds not be fed out to other collection animals, unless the veterinary service has assessed the risk of transmissible diseases (including the implications of state/ territory restrictions on swill feeding to minimise disease transmission)?	G8.7				

Are dead collection animals removed from their enclosure as soon as observed (and it is safe to do so), apart from rare instances where there may be a social/ behavioural benefit in allowing the carcass to remain for a period of grieving?	G8.8				
Are dead pest, stray and wild animals within the zoo grounds collected and brought to a designated area for inspection, post mortem examination (if deemed necessary) or disposal as soon as possible?	G8.9				
Is a thorough post-mortem examination conducted on all dead collection animals to determine the cause of death?	G8.10				
If immediate examination is not possible, are dead animals stored in a designated cool room or refrigerator until post mortem examination or disposal?	G8.11				
If post mortem examination is delayed, and it is necessary to freeze the carcass, is this only done after consultation with the zoo's veterinarian?	G8.11				
Are carcasses placed in leak-proof, labelled plastic bags or containers until post mortem examination or disposal?	G8.12				
Is the refrigerator, cool room or freezer used only to store carcasses (not animal or human food stuffs)?	G8.13				
Is the refrigerator, cool room or freezer located in an area away from live animal housing and food storage and preparation?	G8.13				
Does the refrigerator, cool room or freezer have sufficient capacity to hold all carcasses prior to examination and/ or disposal and	G8.13				
Is the refrigerator, cool room or freezer cleaned and disinfected regularly?	G8.13				

<p>Are post mortem examinations performed by a veterinarian whenever possible, with other, appropriately trained staff performing post mortem examinations, collecting samples and recording observations if the veterinarian is not available?</p>	G8.14				
<p>Is interpretation of post mortem examination findings the sole responsibility of the veterinarian?</p>	G8.14				
<p>If resources are limited, is a priority of post mortem investigation given to animals that fit the categories outlined in Section 7 of the Manual Points and is a thorough post mortem examination, by the zoo's veterinary service, conducted in all cases falling into these categories?</p>	G8.15				

Carcase disposal

	Guideline	YES	NO	N/A	Corrective action
Does transport and disposal of carcasses use methods that minimise biosecurity risk and minimise the opportunity for scavenging?	G8.16				
If carcasses leave the property for disposal, are procedures followed to ensure that the carcasses are suitably contained (e.g. rip proof plastic bags)?	G8.17				
Are carcasses collected regularly from the property?	G8.18				
Does the vehicle collecting carcasses not enter the area of the zoo which houses collection animals?	G8.19				
Are all containers used for collecting dead and storing dead animals washed and disinfected before re-use?	G8.20				

Notes:

9.0 Management of animals, vehicles and equipment during animal transport carcase disposal

	Guideline	YES	NO	N/A	Corrective action
Does the zoo have a plan for biosecurity management during animal transfers?	G9.1				
Are all transport crates, equipment and, if necessary, vehicles, used to transfer animals between zoos thoroughly cleaned and disinfected before and after use?	G9.2				
Do all staff accompanying animal transfers employ the highest biosecurity work practices and personal hygiene (at minimum meeting protocols for zoo quarantine management)?	G9.3				
Does a Competent Keeper and/ or veterinarian accompany animal transfers, if required, to assist in management of biosecurity and other concerns?	G9.4				
Is the zoo aware of, and does it comply with relevant state/ territory requirements for movement of animals in general and the movement of animals between particular states/ territories?	G9.5				
Are waste products, including bedding, food, faeces and urine managed with strict biosecurity practices during transfer?	G9.6				
If necessary, are waste products, including bedding, food, faeces and urine securely bagged until arrival, and disposed of through the receiving zoo's established biosecurity management processes?	G9.6				

If zoo animals are transferred using commercial transportation companies, are zoo animals not transported in vehicles containing other (domestic) animals?	G9.7				
If zoo animals are transferred using commercial transportation companies and it is necessary to transport zoo animals in the same vehicle as domestic animals, is an appropriate biosecurity risk assessment undertaken?	G9.7				

Notes:

10.0 A Zoo-specific biosecurity

	Guideline	YES	NO	N/A	Corrective action
Has the zoo developed Zoo-specific biosecurity procedures (incorporating and building on the guidelines presented in the Manual) which clearly demonstrate the biosecurity arrangements in place at the zoo?	G10.1				
In developing the Zoo-specific Biosecurity Plan, was detailed consideration given to minimising the risk of disease entering into, spreading within or escaping from the facility?	G10.2				
Does the Plan align with any National (AUSVETPLAN and AAWS Standards) and local contingency and management plans including those for zoonoses or incidents that may impact upon human health?	G10.3				
Does the Zoo-specific Biosecurity Plan, at a minimum, include information on: a health program for all animals held at the facility; inspection, testing and quarantining of newly arrived animals; control of pest, wild and stray animals; hygiene procedures for staff and visitors; isolation of sick animals; drainage and waste disposal and; ensuring machinery and equipment does not introduce pests or disease?	G10.4				

Notes:

11.0 Emergency Biosecurity Response Plan

	Guideline	YES	NO	N/A	Corrective action
Has the zoo established and documented a clear Emergency Biosecurity Response Plan for use if an emergency animal disease alert is raised?	G11.1				
Does the Emergency Biosecurity Response Plan include protocols for work practices, restriction on animal, staff and visitor movement and does it detail the agencies and authorities which need to be informed?	G11.2				

Notes: