Guidelines for management of an emergency wildlife disease response

Working draft

November 2018

Wildlife Health Australia

Contact information

This document will be reviewed regularly. Suggestions and recommendations for amendments should be forwarded to:

Wildlife Health Australia
Suite E, 34 Suakin Drive, Mosman NSW
Tel: 02 9960 6333
email: admin@wildlifehealthaustralia.com.au

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DISEASE WATCH HOTLINE: 1800 675 888

The Disease Watch Hotline is a toll-free telephone number that connects callers to the relevant state or territory officer to report concerns about any potential emergency disease situation. Anyone suspecting an emergency disease outbreak should use this number to get immediate advice and assistance.

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1.1   Purpose

These *Guidelines for management of an emergency wildlife disease response* are part of the arrangements for preparedness for an emergency wildlife disease (EWD) incident. The arrangements aim to deliver consistent, reproducible, structured and systematic responses across Australian states and territories, the Australian Government and any partner organisations. They provide information and advice to inform a response to an EWD incident in the terrestrial, marine and aquatic environments. The guidelines are intended to be a generic, overarching 'summary' document on how to approach an EWD response.

1.2   Rationale

The Australian Veterinary Emergency Plan (AUSVETPLAN) provides the basis for management of responses to emergency animal diseases (EADs) in production animals. The management of a response to an EWD needs a similar basis. However, response arrangements for a disease affecting native wildlife differ from those for diseases in production animals because EWDs can also affect people, trade and market access, and biodiversity. In many cases, the party that will be most affected by an EWD is not readily identifiable at the start of an incident. Many diseases of native wildlife and their potential impacts are unknown.

A high-level framework that articulates the authority, and roles and responsibilities of agencies during an EWD response, how these are determined, and how the response is to be managed will contribute to a coherent and reproducible response. Despite some differences from production animals, native wildlife are just other animals to be managed, and any guidelines should be consistent with current EAD management documents.

These guidelines use the AUSVETPLAN framework and provide an initial (draft) high-level document for EWD incidents in Australian native animals.

1.3   Scope and application

The hazard addressed by these guidelines is an 'emergency disease in an Australian native wildlife population'. Wildlife are defined as unmanaged populations of Australian native wild animals (mammals, birds, reptiles or amphibians). An emergency disease is defined as a disease that is (a) exotic to Australia or (b) a variant of an endemic disease or (c) a serious infectious disease of unknown or uncertain cause or (d) a severe outbreak of a known endemic disease, and that is considered to be of national significance with serious social or trade implications.

Disease outbreaks or incursions in Australian native fish are outside the scope of the guidelines.

The guidelines may be used for an emergency involving an unknown, emerging or endemic disease in Australian native wildlife. They should be used in conjunction with state and territory arrangements, plans, procedures and policies, and relevant components of AUSVETPLAN, such as the operational manuals.

Arrangements for a response to disease outbreaks or incursions in introduced and feral species are presented in the AUSVETPLAN *Wild animal response manual* and specific disease strategy manuals,[1] and the reader is referred to these sources for guidance. The tools and systems of the current guidelines can be used in such outbreaks or incursions.

The guidelines focus on principles, with the understanding that the states and territories can modify them to suit different contexts.

These guidelines do not contain specific information relating to the technical management of EWD responses or post-response activities, including recovery activities such as conservation and species recovery or management. This information will be determined at the time of the incident and will use currently available documents (eg *White-nose syndrome response guidelines*[2] and local plans), or future technical response plans specifically developed for Australian wildlife diseases.

The guidelines are intended for use by state and territory managers responsible for coordination and control who are likely to be, or are, involved in an EWD response. They are intended for use by those with suitable training and qualifications, such as the training and qualifications required for management of biosecurity and natural disaster emergencies (eg national public safety qualifications). The guidelines are not a substitute for such training or qualifications. People with different emergency management backgrounds and experiences involved in an EWD response are likely to come from a number of state and territory agencies, and the Australian Government.

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[1] https://www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/
[2] https://wildlifehealthaustralia.com.au/Portals/0/Documents/ProgramProjects/
WNS%20response%20guidelines%20-%201.0%20-%20May%202017.pdf

2 Legislation, agreements and plans relevant to management of an emergency wildlife disease response

2.1 Legislation

A response to an emergency wildlife disease (EWD) will need to operate in accordance with, and use the authority of, an array of legislation. The legislation provides the authority to act and undertake tasks, while providing protection for the individual and agency. Response managers will need to look for any potential conflict between legislative requirements to ensure that tasks and tactics used are legal.

This section summarises legislation that will need to be considered by response managers. The legislation referenced here is not a full list of the relevant legislation – for example, activities such as waste disposal will require consideration of other legislation. Timely legal advice must always be sought during a response to ensure the legality of actions and to ensure that response activities are not delayed by legal issues.

2.1.1 Biosecurity legislation

States and territories have operational responsibility for the control and eradication of diseases in animals, including native wildlife, within their borders. States and territories administer their legislation that is relevant to the control and management of emergency diseases. This legislation provides the powers and authority necessary for control measures and tactics.

Most states and territories have, or are moving to, a single biosecurity Act that replaces separate legislation for diseases of livestock and animals, and plant pests. The biosecurity legislation has been developed to apply to pests and diseases of terrestrial, marine and aquatic wildlife.

State and territory primary industries or agriculture agencies have primary responsibility for biosecurity legislation. The responsible agency for the biosecurity legislation has the authority to appoint personnel from other agencies, such as environment agencies and local government agencies, as authorised officers.

The biosecurity legislation will need policy contextualised to the response to ensure that the intention of the legislation is fully applicable. For example, a case definition, legal instrument, or movement control schedule or policy, such as that for a control area (CA) or restricted area (RA), may be needed to contextualise the legislation to the response.

The Australian Government has relevant powers for the control and management of diseases of animals under the *Biosecurity Act 2015*. This Act enables the Australian Government to support states and territories, where necessary, and to control and manage diseases on land managed by the Australian Government.

Control and management activities on some land tenures, such as for the Australian Defence Force and Indigenous groups, may have requirements beyond those covered by biosecurity legislation.

Some of the new state and territory biosecurity legislation includes the concept of 'shared responsibility', which is reflected in general biosecurity obligations or duties. These obligations and duties mean that individuals are required to take responsibility for biosecurity.

It is important that veterinarians familiarise themselves with their local, state and territory biosecurity arrangements. Wildlife are included in these arrangements.

2.1.2   Emergency management legislation

Supporting the biosecurity legislation in each state and territory is the emergency management legislation.

This legislation aims to deliver a whole-of-government approach on an all-hazards basis, to ensure the effective coordination of emergency management.

In each jurisdiction, the arrangements that flow from this legislation articulate the lead and supporting agencies for each hazard, including emergency pests and diseases of plants and animals (including native wildlife). The arrangements ensure that there is coordinated support from government agencies for the control and management of diseases in wildlife.

2.1.3   Animal welfare legislation

States and territories have legislation for the welfare of animals. This legislation sets out the requirements for, and enforcement of, standards for animal welfare and prevention of animal cruelty.

The legislation aims to ensure that all animals receive good levels of care and conditions for their welfare. In some states and territories, the agency responsible for the legislation is the primary industries or agriculture agency; in other jurisdictions, it is the agency responsible for the environment, or even a nongovernment organisation. Inspectors under the legislation may be from government agencies, the RSPCA, or state or territory police.

There is no national animal welfare legislation.

Animal welfare legislation puts the onus on the carers of animals to ensure that welfare is of an acceptable standard. The legislation may be supported by codes of practice.

Welfare of animals, including wildlife, must be a consideration in the control and management of a disease in wildlife. Management of an EWD response does not provide an opportunity to set aside legislative requirements for animal welfare.

The AUSVETPLAN *Wild animal response strategy*,[3] and the *Australian code for the care and use of animals for scientific purposes*[4] list Australian legislation relevant to wildlife welfare, disease and management.

2.1.4 Wildlife protection and management legislation

States and territories have legislation that aims to protect native fauna, flora and the natural environment. This legislation typically includes specific protection for threatened species; maintenance of biodiversity; and protection against killing, taking, controlling and harming wildlife.

In some instances, the legislation that covers aquatic and marine wildlife may be separate from the legislation for terrestrial wildlife.

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* aims to protect the environment and biodiversity across Australia.

Wildlife protection and management legislation needs to be considered during a response where tactics and tasks may be contrary to the requirements of this legislation. For example, this may be the situation if a native wildlife species with high conservation status (such as vulnerable, endangered or critically endangered) is affected by an EWD response. An EWD response should avoid any adverse change to the conservation status of the species in question (eg a species being moved from the vulnerable to the endangered category).

Any impact will also have to be negotiated with the relevant authority – usually the state or territory, or national, environment agency – and a scientific permit will be required before any control activities occur.

2.1.5 Human health legislation

The human health legislation in each state and territory enables management and control of pests and diseases in people. This legislation may apply to some known and yet-to-be-identified diseases of native wildlife that are zoonotic. These zoonotic diseases may or may not be the target EWD of a response.

The requirements of human health legislation for zoonoses must be considered when the incident involves potential exposure of personnel and the community to a zoonotic disease. This legislation is likely to be used for zoonoses of significance rather than the more common zoonoses.

2.1.6 Other legislation

Transport of samples

Among the wide range of everyday requirements that must be complied with during an EWD response are those relating to transport of samples and related materials within Australia and overseas.

Where there is a suspicion of a notifiable or emergency animal disease, the relevant state or territory laboratory should coordinate sample packaging and consignment for delivery to the

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[3]   www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents
[4]   https://nhmrc.gov.au/about-us/publications/australian-code-care-and-use-animals-scientific-purposes

Commonwealth Scientific and Industrial Research Organisation Australian Animal Health Laboratory (CSIRO-AAHL), Geelong, for emergency disease testing. Specimens should be forwarded to CSIRO-AAHL after the necessary clearance has been obtained from the chief veterinary officer (CVO) of the state or territory of the suspect case, and after the CVOs of Victoria and Australia have been informed about the case and the transport of the specimens to Geelong.

For further information, see the AUSVETPLAN *Laboratory preparedness manual*.[5]

Samples must not be sent to overseas laboratories for testing without the permission of the state or territory CVO, who will liaise with the Australian CVO as required. This policy for the transfer of biological specimens to overseas laboratories for testing for infectious and parasitic diseases exists because there is a real possibility that inappropriate or unvalidated tests overseas may suggest the presence of a disease or parasite agent not previously considered to be in Australia; this could have serious socioeconomic impacts. There is also some risk of spreading diseases between countries. The local department of primary industries or Wildlife Health Australia (WHA) Coordinator can provide more information.

The International Air Transport Association (IATA) specifies the requirements for moving materials by air in Australia and internationally. Samples must meet these requirements, which may include packing by a person approved or accredited for dangerous goods packaging.

The IATA requirements also apply to ground transport of samples.

In addition to meeting the requirements for ground and air transport of samples, there may be requirements for movement of samples that result from movement controls and restrictions applied under the biosecurity legislation during an EWD response. For example, declared zones such as an RA or CA may include restrictions on movement of risk materials, including samples. A legal instrument such as a permit may need to be issued to cover the movement of samples within or through an RA or CA.

Convention on International Trade in Endangered Species

Many Australian native species are recognised under the Convention on International Trade in Endangered Species (CITES), which aims to protect and conserve wildlife by regulating international trade. Under CITES, a permit may be required for export of specimens overseas. There may be import requirements for the receiving country. State and territory government laboratories, and the Australian Government Department of the Environment and Energy can provide more information. The Australian Government is likely to take the lead when samples are to be shipped overseas during an EWD response.

The Resources section of the WHA website contains a number of relevant documents.[6]

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[5]   www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents
[6]   www.wildlifehealthaustralia.com.au/Resources.aspx

2.2 Nonlegislative arrangements

2.2.1 AUSVETPLAN

The purpose of AUSVETPLAN is to ensure coherent operations and procedures among national, state and territory animal health authorities, and emergency management organisations in the management of an emergency animal disease (EAD).

Some AUSVETPLAN manuals and strategies may be relevant to an EWD response. If the EWD is listed under the Emergency Animal Disease Response Agreement (EADRA), the relevant disease strategy and supporting documents will provide guidance for the response.

The AUSVETPLAN manuals that are likely to contain information and advice that is relevant to an EWD response are:[7]

- operational manuals such as *Decontamination* and *Disposal procedures*

- management manuals, including the *Control centres management manual* (Parts 1 and 2)

- guidance documents, such as those providing guidance on declared areas and premises classifications, and risk-based assessment of disease control options for rare and valuable animals

- resource documents, including those relating to communication and public information.

2.2.2 National Environmental Biosecurity Response Agreement

The National Environmental Biosecurity Response Agreement (NEBRA) is a partnership between the Australian Government and the states and territories. The NEBRA establishes a framework for national response arrangements to be applied by agreement of the parties where there are no pre-existing arrangements. It establishes national arrangements for responses to nationally significant biosecurity incidents for which the response predominantly has public benefits.

The NEBRA is likely to be the primary reference for an EWD response. The requirements and processes of the NEBRA have been put into a response context in these guidelines. These guidelines are not a substitute for a detailed knowledge of the NEBRA.

The presence of a suspect EWD should trigger initiation and completion of actions under these guidelines until a decision is made on the applicability of the NEBRA.

The NEBRA does not displace or replace the operation of any of the related biosecurity arrangements, including those for cost sharing under pre-existing arrangements, such as those for emergency pests and diseases of production animals and plants.

The NEBRA applies only to response activities. It does not apply to recovery actions.

Cost sharing

The NEBRA provides a basis for the sharing of costs between the signatory parties. It also provides opportunities for private beneficiaries to become involved in a response.

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[7]   https://www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents

Under the NEBRA, initial response actions are funded by the affected state or territory, which may request reimbursement of eligible costs by the cost-sharing parties. Reimbursement of costs is subject to the response being determined to meet the criteria for funding in the NEBRA.

Schedule 3 of the NEBRA details the criteria that must be considered to determine funding eligibility.

Category classification of EWDs

Under the NEBRA, there is no category classification of pests and diseases as there is for EADs under the EADRA.

Where the EWD is determined to be a listed EAD under the EADRA, the relevant category (1 to 4) will apply, and the response will be managed under the EADRA rather than the NEBRA. See the EADRA[8] for details on the category classification of EADs.

2.2.3 Plans

EWD-specific plans are developed as needed. The two plans currently available (*Disease strategy: chytridiomycosis [infection with* Batrachochytrium dendrobatidis*]*[9] and *White-nose syndrome response guidelines*[10]), have not yet been through the formal process for approval and endorsement under the AUSVETPLAN framework. Responsibility for the ongoing maintenance and curation of EWD-specific plans is yet to be agreed.

Wildlife health partners such as zoos, private collections and conservation areas may have plans for EWDs that could affect their enterprise.[11] Response managers should ensure that partners are given every opportunity to enact their plans within the scope of a given response.

2.2.4 Policies and standard operating procedures

Policies and standard operating procedures (SOPs) that may be relevant to an EWD are developed and maintained by state and territory agencies, the Australian Government and WHA. The state and territory policies and SOPs take precedence over any information in these guidelines.

The detailed procedures in SOPs, along with supporting documentation such as risk assessments and plans, are typically maintained by the agency that normally undertakes the activities described in the documents. These agencies include primary industries and agriculture, the environment and human health.

The following links provide access to some SOPs that may be relevant to response actions and tactics. State and territory SOPs are not always published on the internet.

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8   https://www.animalhealthaustralia.com.au/what-we-do/emergency-animal-disease/ead-response-agreement/
9   https://www.environment.gov.au/system/files/resources/387d3e66-3cdc-4676-8fed-759328277da4/files/chytrid-fungus-manual.pdf
10   https://wildlifehealthaustralia.com.au/Portals/0/Documents/ProgramProjects/WNS%20response%20guidelines%20-%201.0%20-%20May%202017.pdf
11   https://www.wildlifehealthaustralia.com.au/WHADocuments.aspx

WHA

- https://www.wildlifehealthaustralia.com.au/WHADocuments.aspx
- https://www.wildlifehealthaustralia.com.au/Resources.aspx

Nationally Agreed Standard Operating Procedures

- www.agriculture.gov.au/biosecurity/partnerships/nbc/nbepeg/nasops

NSW Department of Primary Industries

- https://www.dpi.nsw.gov.au/climate-and-emergencies/emergency/management/resources-and-publications

3 Components of the response structure

3.1 Pre-incident arrangements and preparedness

Agricultural issues of national importance, which may include animal health issues, are the responsibility of the Agricultural Ministers' Forum (AGMIN), which comprises state and territory primary industries ministers, and is chaired by the Australian Government Minister for Agriculture and Water Resources. The Agriculture Senior Officials Committee (AGSOC) is the standing committee supporting AGMIN, which manages the work of AGMIN. AGSOC comprises all department heads and chief executive officers of the state and territory, Australian Government and New Zealand departments responsible for agriculture policy.

The National Biosecurity Committee (NBC) is a subcommittee of AGSOC with responsibility for national biosecurity policy issues across jurisdictions and sectors. The NBC is formally established under the Intergovernmental Agreement on Biosecurity.

The Secretary of the Australian Government Department of Agriculture and Water Resources chairs the NBC as a member of AGSOC. The Australian Government is represented by senior officials from the Australian Government Department of Agriculture and Water Resources, and the Australian Government Department of the Environment. Members include senior representatives from agriculture or primary industry and environment departments responsible for biosecurity matters in each state or territory and New Zealand. Each jurisdiction may have up to two representatives that bring a single position on matters to be considered by the NBC. Plant Health Australia and Animal Health Australia are permanent observers on the committee.

The Animal Health Committee (AHC), a subcommittee of the NBC, comprises the chief veterinary officers (CVOs) of the Australian Government, and the states and territories. Representatives from the CSIRO Australian Animal Health Laboratory (CSIRO-AAHL), Animal Health Australia and Wildlife Health Australia (WHA) participate as observers. The primary purpose of AHC is to provide scientific and technical advice on animal health issues to the NBC and AGSOC.

The overall organisation of wildlife health management in Australia is shown in Figure 3.1.
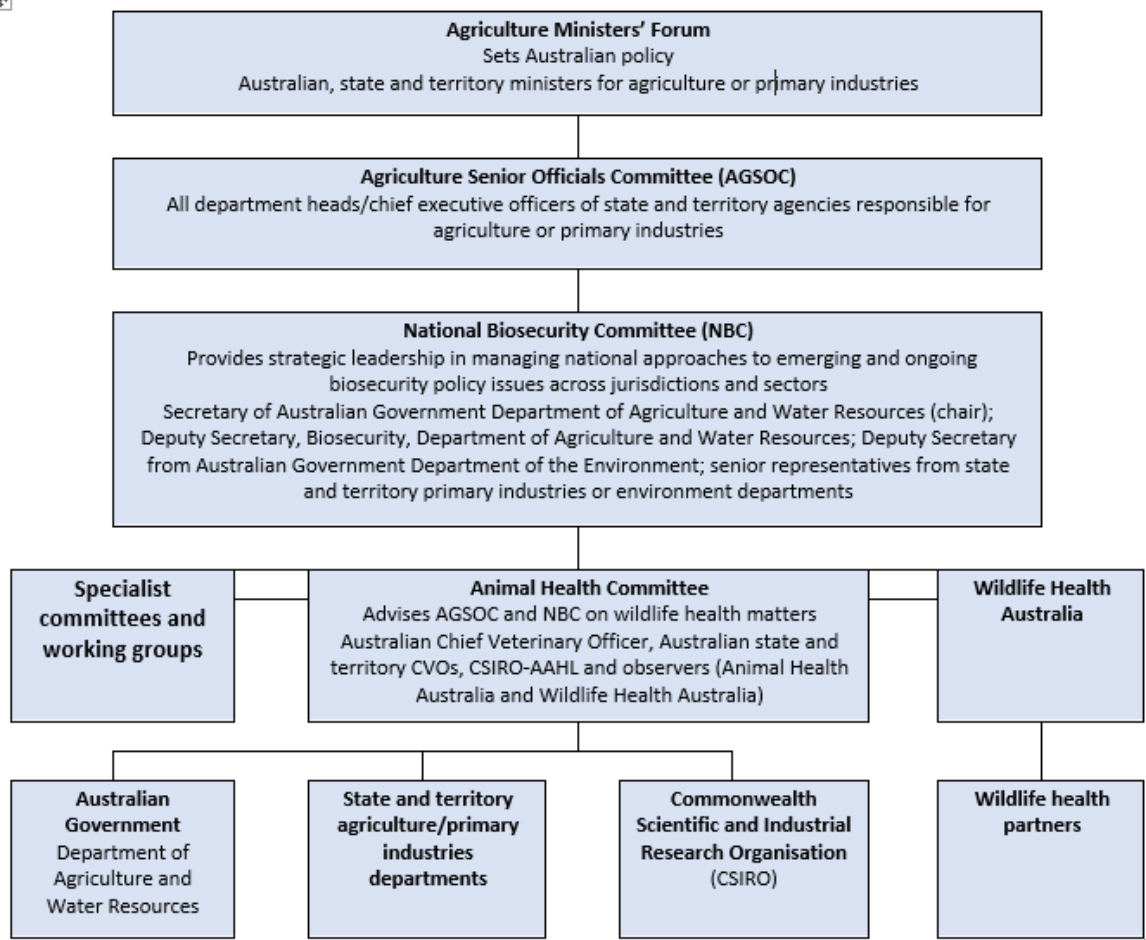
CSIRO-AAHL = CSIRO Australian Animal Health Laboratory

Figure 3.1 Organisation of wildlife health management in Australia

3.2   Response arrangements – whole of government

The national arrangements for a response to an emergency wildlife disease (EWD) have response management structures at national, state and territory, and regional and local levels in both affected and and nonaffected states and territories, and the Australian Government. The whole-of-government model is shown in Figure 3.2.
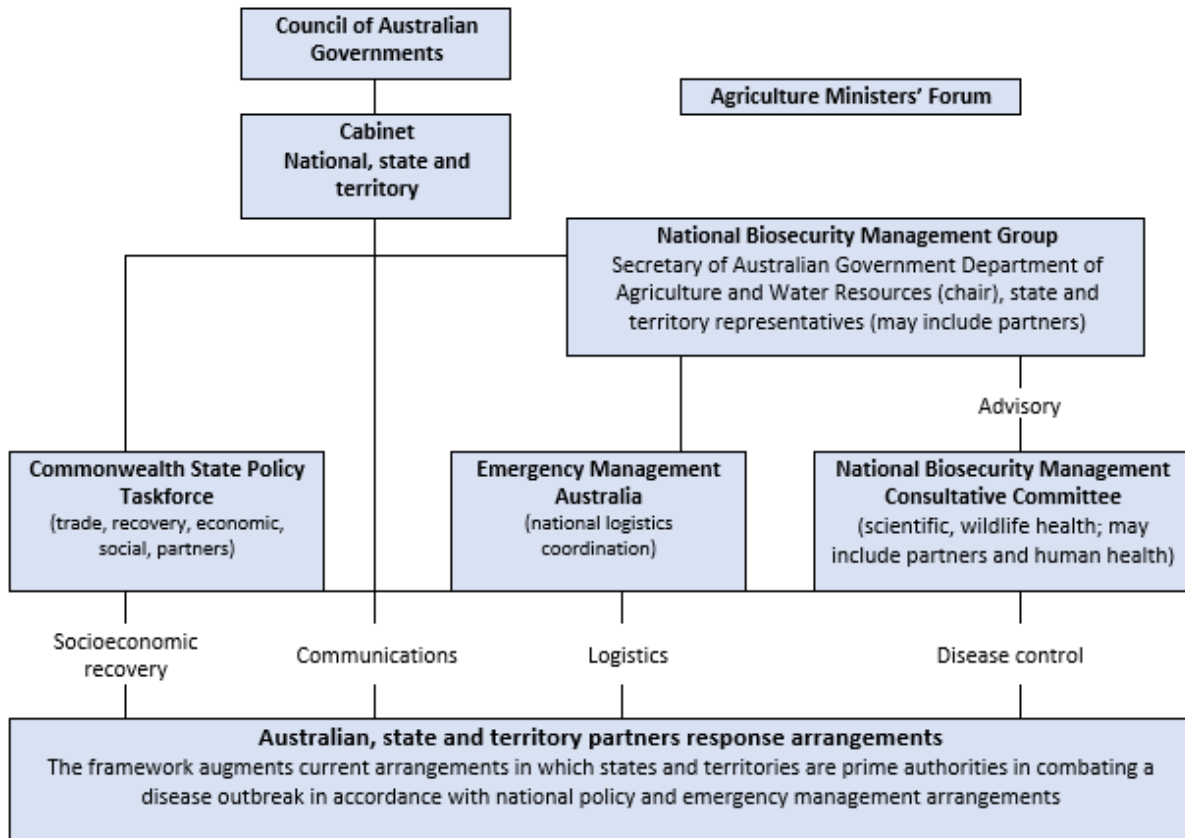
Figure 3.2 Whole-of-government response in a major or multistate incident

3.3   Response arrangements – national level

The Australian Government Department of Agriculture and Water Resources is the lead Australian Government agency for biosecurity emergencies. It is also responsible for reporting to international agencies, such as the World Organisation for Animal Health (OIE), and advising trading partners. The Australian OIE Focal Point for wildlife is appointed by, and reports to, Australia's OIE Delegate (the Australian CVO). The current Focal Point is located within WHA.

3.3.1   National Biosecurity Management Group

The National Biosecurity Management Group (NBMG) and the National Biosecurity Management Consultative Committee (NBMCC) ensure that there is a high level of interaction between each state and territory, the Australian Government, and any agreed private partner that may be involved in a response. An NBMG is created for a specific response at the request of a party to the National Environmental Biosecurity Response Agreement (NEBRA). The NBMG is not a standing group or committee.

The NBMG includes:

* representatives from the Australian Government (nonvoting chair plus one voting member from agencies determined by the Australian Government)
* one voting representative at chief executive level from the designated lead agency of each state and territory

- one nonvoting representative at chief executive level from interested nonlead agencies of each state and territory

- the Chair of the NBMCC

- the chair of the affected sector committee

- private or industry representatives as agreed to by the chair

- observers, who may include one representative from each of the health departments of the Australian Government and each state or territory, and advisers to voting members. Advisers may be nongovernment personnel.

At the start of each response, each state or territory must identify their lead agency and supporting agency(s) to ensure the correct representation on the NBMG.

The NBMG is active during the alert, operations and stand-down phases (see Section 5).

The NBMG is the peak national biosecurity decision-making forum through which parties would seek decisions in the event of an outbreak of an EWD. Decisions to be made by the NBMG include whether the outbreak is of national significance, whether a national biosecurity incident response is required, the approving of the National Biosecurity Incident Response Plan (NRP; see Section 5.2), and cost sharing of eligible costs of implementing an NRP.

The outputs required by the NBMC to make these decisions are described in Section 6.2.

An important NBMG decision towards the end of a response will be to determine whether the disease has been eradicated in accordance with proof-of-freedom evidence and progress against the NRP. Alternatively, the NMBG may determine that eradication is no longer feasible and cease the response under the NEBRA. Affected parties are then free to determine whether any further response activities occur (Figure 5.1); however, these will not be funded under the NEBRA.

Emergency management agencies are not usually represented on the NBMG unless a state or territory determines such an agency to be a supporting agency. An emergency management agency may make a contribution at the national level through the emergency management committees.

3.3.2 National Biosecurity Management Consultative Committee

The NBMCC is a technical committee that will advise the NBMG in relation to its biosecurity decision-making responsibilities and will have a role in coordinating national biosecurity incident responses between the parties.

The creation and membership of the NBMCC is fundamentally the same as for the NBMG except that there are no nonvoting members and the representative from CSIRO is a voting member. Observers are present, as for the NBMG.

The NBMCC will provide wide-ranging technical and expert advice to the NBMG, including on the EWD, control measures, distribution of the disease and host(s), impacts of the disease, transmission pathways and tactics such as surveillance. A key activity of the NBMCC is to consider a proposed NRP and recommend it (or not) to the NBMG. The NBMCC will

manage national-level reports and monitor progress to assess whether eradication of the EWD is feasible.

NBMCC meetings are likely to be frequent during the initial stages of a response. Subsequently, the NBMCC will meet as often as necessary to ensure that the affected states or territories are able to manage and control the EWD, or until eradication is successful or a decision is made that it is not feasible to eradicate the EWD.

3.3.3 Technical review group, and scientific advisory group or panel

The NBMCC is able to create a special interest group(s) or panel(s) to consider and provide specialist advice to the NBMCC. The membership of such a group or panel is usually determined at the time. The group or panel may or may not include a representative from each state and territory, the Australian Government, and other stakeholders with relevant specialist knowledge and expertise.

Such groups or panels for an EWD are very likely to include experts from a number of institutions, such as universities, overseas organisations and private foundations. These institutions are likely to have experts with knowledge of the specific hosts of the EWD agent, the target EWD, target populations, survey and sampling methodologies, and environmental assessments and measurements.

The budget of the NRP will specify the use of any external experts and reflect the costs to engage them.

3.4 Response arrangements – state and territory level

Emergency management agencies, animal health authorities and human health authorities are jointly responsible for maintaining emergency animal disease (EAD) plans, including EWD support plans, and for preparedness activities such as development and maintenance of policies, procedures, response systems, training programs for personnel and exercises.

3.4.1 State and territory agency support plans

Responses to an EWD will require significant resources (stores, equipment, services) and people with expertise, skills and knowledge from agencies other than those directly involved in a response.

Plans are developed and maintained on an all hazards-basis as part of the emergency management arrangements at the national, and state and territory levels. These include state and territory disaster plans and supporting subplans, such as the biosecurity subplans of Victoria and New South Wales. The arrangements under these plans and subplans ensure a coordinated whole-of-government approach to resourcing at state and territory, regional and local levels. These arrangements will be important during a response to an EWD incident.

3.4.2 Command, control and coordination

The command, control and coordination in the states and territories will bring together personnel from a number of agencies, including primary industries and agriculture, the environment and heritage, and human health. Many personnel from the agencies will have

experience with command, control and coordination systems that are fundamentally the same for natural disasters, human health emergencies and animal health emergencies.

The Biosecurity Incident Management System (BIMS) is the basis for biosecurity responses. BIMS, as contextualised for an EAD and detailed in the AUSVETPLAN *Control centres management manual* (Parts 1 and 2),[12] is accessible online.[13] Personnel from primary industries and agriculture agencies will be familiar with BIMS.

Personnel from environment-based agencies are more likely to be familiar with the Incident Control System (ICS), which is used for responses to natural disasters such as bushfires and floods. The ICS is developed and maintained as part of the Australasian Interagency and Incident Management System.

BIMS and ICS are fundamentally the same. Those familiar with either will be able to work with both. The key principles of both are:

- unity of command
- functional management (control, planning/intelligence, operations, logistics, finance and administration, communications and media)
- management by objective
- span of control
- flexibility.

Both systems are designed to expand and contract in response to the context of the situation. Both provide a structured and systematic approach to management and decision making.

The structural difference between the two systems is in the operations function. BIMS has a number of operations functional areas, such as investigations (including surveillance and tracing), destruction, disposal and decontamination. These functions specifically target biosecurity and are not present in the ICS.

Finance and administration is a key functional area for biosecurity emergencies, including those for an EWD response. Finance management must be given a high priority from day 1 of a response. See Section 10 for more information.

Logistics, communications, community engagement and media are basically the same in each system. Planning in both systems includes roles with specific technical expertise that underpins the technical management for the given hazard.

Figure 3.3 presents a model structure for a single state or territory. The figure shows the relationship between government, including emergency management agencies, the EWD response agency(s) and the national-level forums.

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[12] www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/
[13] www.agriculture.gov.au/biosecurity/partnerships/nbc/nbepeg/bims
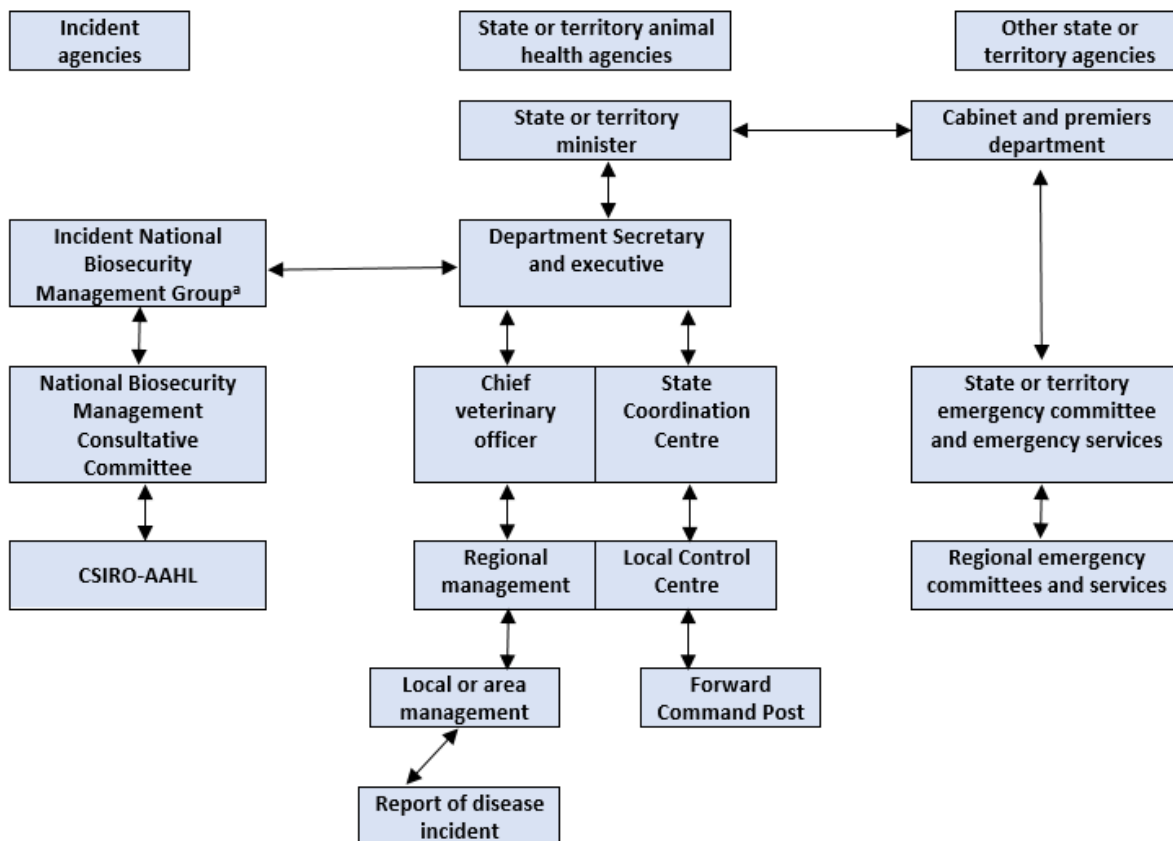
CSIRO-AAHL = CSIRO Australian Animal Health Laboratory
a Partner membership or representation

Figure 3.3 Model response structures in a single state or territory

3.4.3   State and territory coordination

Coordination in each state and territory is undertaken from the State Coordination Centre (SCC), which is usually located within or near the head office of the lead agency.

The SCC has responsibility for overall coordination of policy at the state or territory level; direction of the response, strategy and tactics; state- or territory-wide resource management; state- or territory-wide communication with stakeholders; and liaison with supporting agencies and partners.

The SCC will liaise closely with state or territory minister(s), other state and territory SCCs, and the Australian Government – for example, it will be represented on the NBMG and the NBMCC.

Significant resources will need to be allocated to the Planning function in the SCC to develop and maintain key policy documents. These include the case definition, legal instruments, reports (including national-level situation reports), and documentation for the NBMG and NBMCC. The latter includes the NRP, the strategic risk assessment (see Section 6.5), the cost–benefit analysis (see Section 6.2), the national significance assessment (see Section 6.2) and a coordination plan to operationalise the NRP for the state or territory. The workload will be significant initially, and ongoing throughout the response.

Most communications and media, other than for the community in the immediately affected area or region, will be managed and led from the SCC.

Finance management is the domain of the SCC. It must be adequately and appropriately resourced throughout a response. Finance management will work closely with the Local Control Centre (LCC) to ensure that a systems approach is taken to resource acquisition and disposal, accounts receivable and payable, and budget management.

Consideration will be given to forming one or more groups or committees that will support the activities of the SCC. These may include:

- state or territory management group that includes representatives from the key stakeholder agencies and partners – for example, environment, primary industries, human health and wildlife health

- technical review group that includes experts with knowledge, experience and expertise that is relevant to the context, the disease hosts, the EWD, diagnosis and host populations

- liaison group that includes representatives from key community special interest groups and partners or industry-based groups – for example, wildlife carer and rehabilitation groups, wildlife veterinarians, and zoos.

The SCC will have a close working relationship with the emergency management agencies and organisations, including nongovernment organisations, through the emergency management arrangements for the state or territory.

3.5 Response arrangements – regional or local level

Management and control of the response in the affected region or local area will be from an LCC. More than one LCC may be present if more than one region or local area is affected in a state or territory. An LCC may be supported by one or more Forward Command Posts (FCP) that can be located nearer the areas of field activity and resource availability.

All the BIMS and ICS functions will be present in an LCC. Many of the LCC personnel will be in operations, undertaking field activities.

LCC Planning will take its lead from SCC Planning, and documents such as the NRP and state- or territory-level policy documents (such as the case definition). A time-critical output from LCC Planning is the situation report. The situation report must synthesise the collected, collated and analysed information into a high-quality output. The Planning function must actively monitor and report against stated performance indicators and milestones, success of strategies and tactics, and progress towards eradication.

There may be instances where the SCC and LCC are co-located. Where this occurs, it is important that a function(s) of the SCC and LCC is not reduced to a single functional area (eg SCC Planning and LCC Planning becoming a single Planning function). The outputs and outcomes from the SCC Planning and LCC Planning functional areas are different and must both be produced at the relevant level.

LCC Community Engagement and LCC Media Liaison will include a significant commitment to community engagement activities to develop and maintain support from local stakeholders and partners. There is also likely to be a need for local communications and media working in concert with this function at the SCC level.

3.6   Wildlife Health Australia

WHA is the coordinating body for wildlife health in Australia. Australia has an integrated biosecurity system that includes wildlife (Bunn & Woods 2005). The wildlife component is simple, national and functional. WHA assists the Australian Government and partners to coordinate activities ranging from surveillance to education and training, research and outreach. Activities contribute to preparedness, and an improved understanding and management of risk from diseases that have native wildlife as part of their epidemiology.

One of the core activities of Australia's wildlife health surveillance system is to ensure that relevant authorities are notified of significant wildlife disease outbreaks. WHA acts as a stakeholder liaison body, and may also assist in responding to an EWD or EAD event as directed by the affected jurisdiction, and the Australian CVO.

Where a wildlife disease response crosses state or territory borders and is considered important but does not trigger an EWD or EAD response, WHA may be asked to help to determine if there are similar events in other states or territories; ensure that key agencies, organisations and networks are aware of the event; encourage or coordinate communications across disciplines and agencies; and provide linkage to key expertise at the national level. WHA has a position on the National Biosecurity Communication and Engagement Network, which produces nationally consistent public information in response to pest and disease outbreaks (biosecurity incidents) that affect Australia's agricultural industries and wildlife.

Because the responsibility for wildlife health within a jurisdiction sits with the CVO, their authority must be recognised. They, or their appointed representative for wildlife (the WHA Coordinator), must always be kept informed of any events of concern, and the response activities undertaken under their direction.

A decision has not yet been made about the ongoing management of emergency plans relating to Australia's native wildlife. In the meantime, WHA will act as custodian of the emergency plan, including these guidelines. WHA reports to AGSOC via AHC and the NBC.

3.7   Wildlife health partners

As with other national programs, wildlife surveillance arrangements rely on strong partnerships between Australian governments, industries and nongovernment organisations. In the case of general wildlife surveillance, 'industries' are more accurately referred to as 'partners'. They comprise front-line observers who are most likely to observe and report disease outbreaks, including unusual outbreaks, in their jurisdiction. Partner organisations and networks have an active role in promoting biosecurity and EAD awareness. They include Australian universities, the Zoo and Aquarium Association, the RSPCA, the Australian Veterinary Association, the Australasian Section of the Wildlife Diseases Association, major Australian zoos, the Australian Registry of Wildlife Health, and all Australian veterinary schools.

Private veterinarians are another group of nongovernment wildlife stakeholders and partners. A sentinel surveillance system is based on private veterinary clinics and a number of focus groups. Some partners maintain biosecurity plans, and plans for diseases of significance that may affect their enterprise.

3.8   Qualifications and training

Personnel with a diversity of skills and knowledge that have been developed through education, training and experience are needed to successfully manage an EWD response.

3.8.1   Technical skills and knowledge

Technical expertise will be required for roles that will underpin the development of plans, strategies and tactics, and for tasks that are likely to be specific to the technical context of a response. Expertise will be needed for the target EWD; wildlife health; disease hosts; population management; weather and climate; surveying, trapping, capturing and handling of hosts; and the environment.

There will be a need for people who can prepare a comprehensive cost–benefit analysis, disease ecologists, veterinary epidemiologists, and experts in geospatial information systems and statistical analysis. These experts will have appropriate tertiary education, research backgrounds and extensive specialised experience. The expertise is likely to come from institutions and organisations other than the lead government and supporting government agencies. The contributions of these external experts, which can be funded under the NEBRA, will be vital to the success of a response.

3.8.2   Response management

Management of a response will require personnel with incident management skills, knowledge and experience, based on relevant qualifications. Public safety qualifications at certificate III, certificate IV, diploma, advanced diploma and degree levels are relevant. Personnel from biosecurity-based agencies are likely to hold qualifications with a bias towards biosecurity. Personnel from environment-based agencies are likely to hold qualifications targeting management of natural disasters or similar.

Personnel from both backgrounds are able to fill management team roles of a response. The core units of the qualifications for both groups are the same or very similar, and are relevant to management of an emergency response on an all-hazards basis. For example, a qualified Logistics Manager for any type of emergency response can be a Logistics Manager for an EWD response. Similarly, an experienced and qualified Planning Manager or Operations Manager for emergency responses will be suitable for these roles in an EWD response. Technical expertise for the EWD, host populations, and so on will typically be in the Planning function. Technical expertise is not a prerequisite for many roles for a response.

3.9   Diagnostic resources

Australia has a sophisticated animal health diagnostics network with capability in each state and territory. Participating laboratories are accredited to relevant international standards through the National Association of Testing Authorities. They participate in the Australian National Quality Assurance Program, and the Laboratories for EAD Diagnosis and Response (LEADDR) Network, which focus on national and international interlaboratory proficiency testing and ensuring that tests used to exclude a number of targeted EADs are current, aligned and repeatable.

The LEADDR network includes the high-security diagnostic and containment facility at CSIRO-AAHL, and the Australian Animal Pathology Standards Program, both of which

include significant expertise in wildlife disease diagnosis. Private, university and zoo-based laboratories complement the system. These include a number of reference laboratories and a registry specialising in diseases of Australian native wildlife (the Australian Registry of Wildlife Health, part of the Taronga Conservation Society Australia). Human health diagnostic facilities provide additional layers of capability for zoonotic, arboviral and many other diseases. Participation by these experts, whether a wildlife partner or not, should be encouraged and supported where the expertise is relevant to the EWD. The financial arrangements of the NEBRA provide for meeting the costs associated with nongovernment partners.

In the first instance, detections of all nationally notifiable animal diseases in native wildlife must be reported to the relevant state or territory government agency. Sample submission may be required for confirmation within the state or territory government laboratory, and/or at CSIRO-AAHL.

Guidance for sample collection and processing should be sought from primary industries or agriculture laboratories and peer-reviewed literature (see Vogelnest & Woods [2008]).

Samples for native wildlife diagnostics may take a number of routes; the majority of samples will move through either a private, university or government-based diagnostic pathway. As with samples from domestic and production animals, the pathway selected largely depends on diagnostic outcomes and the suspected aetiology. Where there is a suspicion of a notifiable disease or an EAD, the submission must be through the state or territory government laboratory, or the pathway approved by the state or territory CVO. Sending of samples to another jurisdiction for testing may also require specific permission from the state or territory CVO.

Samples must not be sent to overseas laboratories for testing without the permission of the state or territory CVO, who will liaise with the Australian CVO as required (see Section 2.1.6).

4 Incident levels

A response to an emergency wildlife disease (EWD), like that for a biosecurity emergency or natural disaster, may be attributed a response level. The level reflects the scale, complexity and risk of a response.

A **Level 1 response** is local, small scale and of low complexity, involving a relatively small number of mostly local personnel. State and territory coordination, and national coordination will be at a relatively low level.

A **Level 2 response** is a local or regional response, with some support through state or territory coordination.

A **Level 3 response** is likely to affect two or more regions or areas of a state or territory. A Level 3 response is large scale and with a high level of complexity, involving significant numbers of personnel from across the state or territory, and from interstate.

A **Level 4 response** is very large, with high complexity. One or more jurisdictions are involved in managing the response, and a National Coordination Centre (NCC) is established to coordinate nationally available resources.

A **Level 5 response** is very large, with high complexity. One or more jurisdictions are involved in managing the response, and an NCC is established to coordinate both national and international resources.

State and territory coordination, and national coordination will play a key role at each response level of an EWD and other emergency biosecurity responses.

The Biosecurity Incident Management System[14] and the AUSVETPLAN *Control centres management manual*[15] provide additional information for levels of a response.

Application of the National Environmental Biosecurity Response Agreement does not require the attribution of a level.

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[14]   www.agriculture.gov.au/biosecurity/partnerships/nbc/nbepeg/bims
[15]   www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/

5   Incident phases

5.1   Investigation and alert

The investigation and alert phase is characterised by intense activity to establish the nature of the disease; exclude or confirm endemic diseases; and examine environmental causation, chemical (including pesticide) causation, and mortality events that may be linked to the environment (eg extreme weather and bushfires). The investigations will continue until a level of confidence exists in a positive or negative diagnosis.

The investigations may continue over a protracted period. This may reflect the efforts needed to collect suitable samples from the target population(s), and to isolate, characterise and diagnose the suspect emergency wildlife disease (EWD). If the EWD is a new or emerging disease, new testing methodologies may need to be developed. Epidemiological investigations will be important for new or emerging diseases.

At some point during this phase, a decision will need to made about whether an emergency response should be initiated. Triggers to initiate an emergency response may include notification to either the state or territory chief veterinary officer (CVO) or the Australian CVO, strong suspicion of a known EWD or an emergency animal disease (EAD), and suspicion that the incident will be of national significance with potentially serious impacts. Early activation of an emergency response ensures that systems and structures can be more easily scaled up than in a catch-up situation. It is easier to stand down a response upon a negative result than to scale up a response well into this phase.

At this early stage, the question of whether the suspect EWD is eradicable should not influence the decision to initiate a response.

Activities should be undertaken in conjunction with the investigation – for example, control measures to restrict and minimise the spread of the suspect EWD, and surveillance to ascertain the extent of the suspect EWD and the host population. A considerable amount of information, including distribution and conservation status of the host population, will need to be collected and collated to support the development of high-level outputs such as national-level situation reports and assessments (see Section 6.2).

Efforts during this phase will need to determine whether production animals are affected or likely to be affected by the target disease. Confirmation of the target disease in production animals will mean that the response will need to be considered with regard to a cost-sharing arrangement other than the National Environmental Biosecurity Response Agreement (NEBRA) – for example, the Emergency Animal Disease Response Agreement.

It is essential that the Australian CVO is notified within 24 hours of an EWD being suspected by a jurisdiction. Notification must occur even in the absence of confirmation of an EWD. Using information provided by the affected state or territory, the Australian Government will take the lead in providing advice to states and territories, and across the Australian Government.

Each state and territory must identify the lead agency and supporting agency(s) during this phase. The Australian Government will confirm its designated lead agency, and establish the National Biosecurity Management Group (NBMG) and the National Biosecurity

Management Consultative Committee (NBMCC). The NBMCC is likely to meet frequently during this phase.

In the affected state or territory, a State Coordination Centre (SCC) and even a Local Control Centre(s) (LCC) should be activated during the investigation and alert phase to ensure that there is a structured and systematic approach to deliver the many outputs and outcomes of the phase.

Eligible costs incurred during the investigation and alert phase can be claimed under the NEBRA if a National Biosecurity Incident Response Plan (NRP) is approved on the basis that eradication of the EWD is technically feasible and will be cost effective, and that the incident is nationally significant. The decision on eradicability may be made well into the investigation and alert phase because of the need to collect significant information to inform the decision.

The steps and actions to be undertaken for the response to progress to a full operations phase are outlined in the flowchart in Figure 5.1. The figure also shows the actions required for a response to be fully funded under the NEBRA. Operational activities will be necessary for completion of all the actions in the flowchart.

Table 5.1 provides a checklist of key actions to be completed during the initial stages of a response.

The investigation and alert phase will cease when either:

- it is nationally agreed that the EWD is not nationally significant, or that eradication of the EWD is not technically feasible or cost effective, or
- an NRP is approved for implementation to eradicate the EWD.

Step 1 Notifying party conducts initial containment

Notifying party verifies outbreak and conducts risk assessment

Step 2 Notifying party determines if the outbreak can be managed through pre-existing cost-sharing arrangements

Yes → Follow pre-existing cost-sharing arrangements → Relevant consultative committee determines outbreak cannot be addressed under pre-existing cost-sharing arrangements

No

Step 3 Notifying party notifies reporting point within **24 hours** of becoming aware of the outbreak

Step 4 NBMCC established by parties

NBMCC confirms the outbreak and notifies **all** parties

Step 5 If requested, the **NBMG** is established

Step 6 NBMCC provide advice to the **NBMG** on whether:
- the outbreak can/cannot be managed under pre-existing cost-sharing arrangements
- the outbreak is nationally significant and the disease is likely to be eradicable

Step 6 (b) NBMG considers if: - the outbreak is nationally significant
—the disease is likely to be eradicable

Step 6 (a) NBMG confirms that the outbreak can be managed under pre-existing cost-sharing arrangements

No ←

Yes → Affected parties determine the appropriate response

Yes

No

Step 7 Notifying party:
- conducts a risk assessment, if one is not already done
- conducts a technical feasibility analysis
- conducts a cost: benefit analysis
- prepares a national biosecurity incident response plan **NRP**
- submits all to the **NBMCC**

All parties provide assistance (expertise and technical information)

Step 8 NBMCC provides advice to the NBMG

Step 9 NBMG determines if a national biosecurity incident response is ...

No

Yes

Step 10 National biosecurity incident response activated

NBMCC = National Biosecurity Management Consultative Committee; NBMG = National Biosecurity Management Group; NRP = National Biosecurity Incident Response Plan

Figure 5.1 Schedule 1 of the NEBRA – flowchart of approach to national biosecurity incident response

Table 1   Checklist of key actions to be undertaken during the initial stages of an EWD response

Action	Outcome	Responsibility	Complete (date and time)
Suspect case or signs reported to government laboratory and/or state or territory CVO See Section 5.1	Authorities are aware of suspect EWD, and obligations under NEBRA are met	Field operative	
Suspect case investigated to determine whether it is a potential EWD Actions taken to contain and minimise spread, including consideration of legal options (eg quarantine) See Sections 2.1 and 5.1	Authorities investigate in accordance with legislation, policy and procedures Spread is minimised Information is gathered to inform national decision making	State or territory lead agency	
Suspect case reported to ACVO or nominee within 24 hours of detection See Section 5.1	ACVO or nominee is aware and can notify other NEBRA parties	State or territory lead and CVO	
Incident response structures and systems activated See Sections 3.4, 5.1 and 7; and Appendix 7	Structured and systematic approach is used from start of response	State or territory lead agency	
Financial management system, including cost codes, activated See Section 10	Expenditure is captured and known from start of response, providing good basis for budgets	Department chief financial officer	
Agreement on state or territory lead and supporting agency representatives for NBMG and NBMCC See Sections 3.3 and 5.1	Lead and supporting agency representatives are identified and ready to represent on relevant national group or committee	Department heads	
Communications and community engagement managed locally, regionally and nationally See Section 7.1 and Appendix 5	Partners, community and government are aware of investigation and response, and more likely to be supportive	SCC and LCC Community Engagement and Media Liaison	
Determine whether suspect EWD is covered by existing arrangements such as EADRA or NEBRA See Section 5.1	Decision is made on whether response is covered by existing arrangements such as EADRA or NEBRA	SCC	
Develop documentation for consideration by national forums:	NBMCC or NBMG supports decision on whether response is covered by NEBRA, or additional information is required to make that decision, or response is not	SCC and LCC(s)	

Action	Outcome	Responsibility	Complete (date and time)
• national significance of outbreak • technical feasibility of eradication • strategic risk assessment • response budget • cost–benefit analysis • National Biosecurity Incident Response Plan, including strategies and tactics, with supporting plans such as Resource Plan; Communications, Community Engagement and Media Plan; Surveillance Plan See Sections 6.3 and 10; and Appendixes 1, 3, 4 and 5	covered by NEBRA (eg EWD is not eradicable)		
Regular (daily) situation reports, and coordination (SCC) and control (LCC – Incident Action Plan) plans for operations See Sections 6.4 and 7.2, and Appendixes 2 and 6	NEBRA parties and partners have high level of situational awareness to support decision making at all levels	SCC state or territory reports LCC region or local area reports	

ACVO = Australian Chief Veterinary Officer; CVO = chief veterinary officer; EADRA = Emergency Animal Disease Response Agreement; EWD = emergency wildlife disease; LCC = Local Control Centre; NBMCC = National Biosecurity Management Consultative Committee; NBMG = National Biosecurity Management Group; NEBRA = National Environmental Biosecurity Response Agreement; SCC = State Coordination Centre

5.2   Operations phase

The operations phase commences with the approval of an NRP by the NBMG on recommendation from the NBMCC. Before this phase is fully activated, field operations will commence in anticipation of the field activities that will occur once the NRP is approved, and to inform decisions such as whether the EWD is eradicable.

The complete range of systems and structures will be activated and deployed during this phase. Resourcing needs are likely to escalate quickly and place significant demands on the affected state or territory. Resourcing must be adequate to meet NRP performance indicators, milestones and budget.

The operations phase will cease when it is nationally agreed that either the EWD has been eradicated, it is no longer technically feasible to eradicate the EWD, or review points or financial limits specified in the nationally agreed NRP are not met or are exceeded.

5.3   Stand-down

The stand-down phase requires the systematic and structured closure of the Local Control Centre(s) and State Coordination Centre, and finalisation of all activities of each centre. Planning for the stand-down will ensure that there are no legacy matters for normal business to deal with after the response.

Significant activities will include finalising finances and relevant accounts in readiness for an external audit, stocktaking and disposing of unused stores and equipment, archiving records, and conducting debriefs at different levels and for stakeholders.

Stand-down costs are covered as part of the nationally endorsed budget for an NRP. These potentially significant costs are typically not recognised until the stand-down is imminent. They should be included in the initial budget.

An important stand-down activity is the transition of any residual response activities to normal business arrangements. This may include ongoing sampling and surveillance over a specified period that will be undertaken as part of normal business. Therefore, this is a normal commitment that is not fully cost shareable.

5.4   Post-response management

Post-response activities may be necessary to manage the consequences of the EWD being either eradicated or not eradicated. The activities will reflect the many facets of the EWD context. For instance, the likely establishment of a new EWD may necessitate various research projects to understand and cope with the EWD.

The affected state or territory will take the lead in a transition-to-management (T2M) phase. The lead agency for the response may not be the T2M lead agency. Typically, T2M committees are established at national and state or territory levels, with the former having a shorter life than the latter. T2M committees are an opportunity to involve partners that will be affected by the consequences of the EWD in the future.

Funding for post-response management activities is not covered by the NEBRA. Alternative sources of funding will need to be considered by stakeholder groups, including research funding bodies, private benefactors, state and territory governments, and the Australian Government.

5.5   Recovery

Recovery is the responsibility of the affected state or territory. States and territories have arrangements that may apply for recovery activities of an EWD. Emergency management plans and supporting subplans will be the starting point for recovery planning.

Recovery applies to the natural, economic, built and social environments. Recovery plans usually target specific environments after consultation with affected communities and partner groups. Where recovery plan activities are likely, recovery committees are likely to be at the local or regional level, and chaired by the designated recovery lead agency level at state or territory level.

A national-level recovery committee, as shown in Figure 3.2, is only likely to be present if the impacts of the EWD on the four recovery environments are nationally significant. The national-level, whole-of-government recovery arrangements are primarily present in anticipation of the widespread and national catastrophic effects of a major EAD outbreak across Australia. The same scale of impacts is less likely for an EWD.

6 EWD response planning

6.1 General policy

Emergency management of emerging diseases in production animals such as cattle, sheep, pigs and poultry has often involved controlling and eradicating the disease by stamping out. Tactics to achieve eradication are likely to include:

- quarantine and/or movement controls

- destruction and disposal of infected and at-risk animals

- decontamination of infected premises

- surveillance supported by tracing for susceptible animals, people and fomites

- restriction of the activities of enterprises that represent a risk to eradication of the disease

- vaccination

- control of vectors such as wild animals.

The use of a stamping-out strategy and any of these tactics in the control and management of an emergency wildlife disease (EWD) will be more complex than in production animals. The context for the management of an EWD will inevitably necessitate variations to these tactics and strategy. The tactics do, however, provide a starting point for an EWD response.

As for an emergency animal disease, the nature of the specific tactics and strategies for an EWD will be influenced by a wide range of factors for a given context (see Section 6.6). However, it is very likely that alternative and novel tactics will be necessary to control and manage a disease in native wildlife. Alternative options and measures for management of an EWD may include:

- managing accessibility to suspect populations (movement controls)

- making use of landscape corridors or variations in the landscape that have the potential to affect the distribution of the host(s)

- targeted culling

- use of lures, including 'Judas' hosts, baits, shelter, food and water

- biosecurity measures, including decontamination of high-risk sites

- environmental modification

- vaccination, including use of novel application techniques

- conservation alternatives, such as retention of genetic material or hosts (genome banking or captive breeding).

Some options, including conservation alternatives, that do not directly support eradication of the EWD are unlikely to be covered by the National Environmental Biosecurity Response Agreement (NEBRA).

It is important that the necessary time and space are available to consider strategic and tactical options, rather than defaulting to options that appear to be available in the first instance (see Section 6.6).

AUSVETPLAN provides additional information that may assist in decision making regarding tactics and strategies for rare and valuable captive animals (AHA 2016).

Planning during a response in an affected state or territory is undertaken for the national, state and territory, and regional or local levels.

6.2   National level

The State Coordination Centre (SCC) in the affected state or territory will undertake a significant amount of planning. In the initial stages of a response, the key outputs from the SCC for use at the national level by the National Biosecurity Management Group (NBMG) and the National Biosecurity Management Consultative Committee (NBMCC), as required under the NEBRA, are:

- situation reports (sitreps) at frequent and regular intervals
- assessment of the national significance of the target host(s)
- assessment of resource requirements
- risk assessment at the strategic level, addressing likelihood of spread, likelihood of re-entry of the EWD in the future, and impacts on public health and public amenity
- cost–benefit analysis for eradication of the EWD
- applicability of other cost-sharing arrangements (taking into account whether there is an effect on primary production)
- technical feasibility of eradication
- National Biosecurity Incident Response Plan (NRP).

The NRP, as required by the NEBRA, must include:

- the results of a risk assessment of the disease outbreak
- the results of the assessment of the disease outbreak against the national significance criteria
- the results of the technical feasibility analysis
- the results of the cost–benefit analysis
- details of the actions to be undertaken as part of the response, including identifying the parties that will undertake these actions
- recommended approaches for determining proof of freedom, including surveillance
- projected budgets and indicative costs
- review points or 'caps' relating to the extent of cost sharing.

A review point may include the occurrence of a new outbreak of the disease in a different location, the point where an agreed limit of funding has been expended, and other indicators of the effectiveness of the response arrangements to date.

A template for an NRP is presented in Appendix 1. This template is generic, and will need to be adapted to a response context and in accordance with state and territory procedures. The first version of an NRP is likely to be different from later versions. Later versions will reflect a better understanding of the EWD, the host(s) and the overall context.

During the investigation and alert phase, the initial versions of the NRP will include the activities associated with investigation and assessment of the suspect EWD. The NRP during this phase will detail the activities that will be undertaken to enable completion and delivery of the SCC Planning outputs needed to inform national decision making.

The NRP will inevitably be updated as various aspects of the context are better understood through the activities described in the earlier versions of the NRP.

The NRP will include trigger points and/or milestones that allow monitoring of the progress of the response. These trigger points and milestones will usually include limits of expenditure or budget (eg 80% of the agreed limit). They will also include targets around activities such as surveillance, laboratory throughput, level of community engagement and regulatory outputs.

The NBMG is able to consider and approve updated versions of an NRP and the accompanying budget.

6.3   State and territory

SCC Planning will need to provide timely, specific advice to the NBMCC to support its decision making. The information required by the NBMCC, as specified in the NEBRA, is:

• identification of the disease that will be reported in sitreps (see Appendix 2)

• the control technique options that will specified in the NRP and assessed using an appreciation flowchart (see Appendix 3)

• any legislative impediments to undertaking a national biosecurity incident response that will be considered in the strategic risk assessment (see Appendix 4)

• the resources required to undertake a national biosecurity incident response that will be described in the NRP (see Appendix 1) and supporting Resource Plan

• interim control measures that have been put in place by the notifying party and other relevant parties that would be described in sitreps and the initial versions of the NRP

• the likely distribution of the disease that will be considered as part of the technical feasibility of eradication

• the estimated impacts of the disease that would be described in the strategic risk assessment and the national significance assessment

• endemic disease controls that may limit establishment that will be considered as part of the technical feasibility of eradication

• identification of pathways that will be considered as part of the technical feasibility of eradication and strategic risk assessment

• the level of confidence that all areas affected by the outbreak have been identified that would be described in a number of outputs, including the NRP and supporting surveillance plan, and the technical feasibility assessment

• surveillance activities in place to confirm proof of freedom that would be considered in the NRP and supporting proof-of-freedom plan, and the technical feasibility assessment

• community consultation activities that would be described in the NRP and supporting Communications, Community Engagement and Media Plan (see Appendix 5).

SCC Planning will also produce a State Coordination Plan for the affected state or territory, to deliver consistency across all the agencies and other partners of the response in the state or territory. The State Coordination Plan will usually be updated weekly or monthly, depending on the response context.

6.4   Regional and local area

The Local Control Centre (LCC) will operationalise the NRP and State Coordination Plan with its Incident Action Plan (IAP). The IAP format is the same as that used in the Incident Control System and the Biosecurity Incident Management System. The 'SMEACS' acronym is the basis for an IAP. The IAP will detail:

- **Situation** of the operational period since the last IAP was issued

- **Mission** described by the aim and objectives in the NRP

- **Execution**, including the specific tasks and actions to deliver on the strategies and tactics described in the NRP (what, where, who, when)

- **Administration** tasks, including internal and external logistics

- **Command and control** structure, and who is in what role

- **Safety** system requirements.

The IAP will initially be reviewed every 1–3 days. As the situation stabilises, the review period may extend to 1 week. The LCC will produce sitreps at about the same intervals.

A template for an IAP is presented in Appendix 6. The template is generic for use at control or tactical level. The transformation of the template into an IAP will require a number of planning tasks, such as situation assessment, risk assessment, appreciation (see Appendix 3) and resource planning. The template is a more developed version of that in the *Biosecurity emergency management – response planning guide*.[16]

6.5   Strategic risk assessment

A strategic risk assessment should be undertaken early in the response to inform development of the NRP, a decision on eradicability of the EWD, selection of strategies and tactics, and key outputs such as Resource Plan; Communications, Community Engagement and Media Plan; and budget. Treatments from the strategic risk assessment will be reflected in the relevant plans and other outputs. Treatments will need to take account of compounding risks.

The risk assessment will consider the range of risks associated with the target EWD, as required under the NEBRA. The key topics (in no priority order) to be included in a strategic risk assessment are:

- political risks, including those associated with the government of the day and risks for large enterprises that have an ability to influence the outcomes of a response

- economic risks, including response costs, and economic and trade impacts of the EWD and the response to the EWD

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16   www.agriculture.gov.au/SiteCollectionDocuments/animal-plant/pihc/bepwg/biosecurity-emergency-managementresponse-planning-guide.pdf

- environmental risks, including impacts of the response activities and impacts of the EWD in the absence of any response

- social risks, including social impacts of the EWD and response activities on communities and people, and media and communications risks

- technical risks, including those directly related to the EWD, and those associated with the control measures, including strategies and tactics, and ability to detect and diagnose the EWD

- operational risks, including the risks around resourcing the response, work health and safety (WHS), and structures and systems of the response

- legal risks, including those relating to the legal authority to complete the proposed response activities, and alignment between different pieces of legislation.

The strategic risk assessment will be reviewed at specified intervals, or when there is a change in context or a better understanding of the context.

Tactical and task-based risk assessments, including for WHS, must also be developed and maintained to support a structured and systematic response.

A template for a strategic risk assessment is presented in Appendix 4. The template includes some examples of risks and treatment for these risks. The content in the template is indicative only and will need to be contextualised to a response. It is not intended to be used as a checklist.

6.6   Options selection, including strategies and tactics

The selection of options, such as for strategies and tactics to control and manage an EWD with the aim to eradicate the EWD, is likely to be more complex and dynamic than for production animals. The usual tactics for production animals – such as quarantine and movement controls, tracing and other tactics listed in Section 6.1 – may not be effective in the context of an EWD response.

The factors influencing the selection of alternative strategies and tactics are likely to be complex and may require change as the response progresses. Time and space will be needed to arrive at those that are likely to be effective. Some alternative tactics that may be applicable to a wildlife response are listed in Section 6.1.

Factors that are likely to affect the selection of strategies and tactics include community and government support, access to suitable resources and expertise, season, weather, climate, population dynamics, environment succession, number of host species, distribution of host species, threatened species status of the host, and the ability to survey target populations. Factors that may indirectly affect the chosen tactics include an ability to sufficiently identify the EWD and the turnaround time for the identification. The World Organisation for Animal Health (OIE) *Guidelines for animal disease control*[17] includes a table of potential factors.

Longer-term tactics such as vaccination, genetic preservation of target hosts, or selective breeding may not be obvious initially but may become viable options as the context of the situation is better understood. Some of these alternative strategies and tactics are unlikely to

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[17]   https://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/
A_Guidelines_for_Animal_Disease_Control_final.pdf

be agreed to as response activities covered by the NEBRA. These tactics are likely to be considered as transition-to-management or recovery actions and therefore would currently not qualify for funding under the NEBRA.

The selection of strategies and tactics will be supported by the strategic risk assessment, and an appreciation. Appreciations are likely to be needed for identifying different tactics (eg movement control measures) as well as comparing strategic options (eg eradication versus management or vaccination).

A template for an appreciation and guidelines for development are presented in Appendix 3. The AUSVETPLAN framework provides additional information that may assist in decision making regarding tactics and strategies for rare and valuable captive animals (AHA 2016).

7   Information management

Information during a response is likely to be unreliable, incomplete, not validated or poorly validated, and rarely timely. Information systems must be deployed and used from the first investigation of a response – that is, during the investigation and alert phase.

The information management systems that are the minimum to support good decision making, reporting, situational awareness, and scrutiny by reviews and inquiries are:

- case management system that is used for the information about **all** cases of a response
- resource management package that manages the information relating to the response resources, including personnel
- records management systems for all electronic and hard-copy records of the response
- financial management system for all figures relating to costs, expenditure, budgets, and accounts receivable and payable.

Each of these systems will collect, collate, analyse and report relevant information in a structured and systematic way. A simple Excel spreadsheet will not be sufficient. The information systems, supported by appropriate business rules, work to deliver consistency in a context of ever-changing variables, such as reports resulting from field operations; personnel from more than one agency and organisation; the changing of personnel in a role; multiple points of information collection, collation and interpretation; and the lengthy period of most responses. Information systems are among the systems presented in Appendix 7, which shows the typical outputs of response systems, the outcomes from deploying each system, and the functional area or role responsible for each system.

7.1   Reporting

Reports will be required at national, state and territory, and regional or local levels. The reports will be essential to maintaining good situational awareness of key stakeholders and decision makers at each level, and will thereby facilitate good decision making and ongoing support for the response.

The SCC will produce national-level written reports, which will include:

- the initial report of the suspect emergency wildlife disease (EWD), which must include all the known information for the case(s)
- ongoing reports at agreed intervals (eg weekly initially and fortnightly or monthly thereafter) that reflect the stability of the context, and additional reports when there is a significant change in context (eg detection of suspect EWD in an additional state or territory)
- a midterm report on the response that will provide detailed information based on significant analyses to show progress of the response against the aim, objectives, budget, milestones and performance indicators
- final report at or near the end of the response to support the decision that the EWD has been eradicated, or it is not technically feasible to eradicate the EWD

- debrief report that presents the lessons identified, the proposed action to embed the success factors in future responses, and the opportunities for change to enhance future responses.

In addition to the written reports, the affected state or territory will be required to provide a detailed verbal update to each meeting of the NBMG and National Biosecurity Management Consultative Committee. It is highly recommended that efforts are made to contact each key party before these national meetings to ensure that there is a shared understanding of the reports and other papers before the meeting.

The national-level reports will require significant analysis, and quality presentation of information in graphs, tables and diagrams to ensure that the reader has the same level of situational awareness as the affected state or territory. Raw data are not sufficient. The national-level report must include updated and detailed figures on budget expenditure and commitments. The report will cover the period since the last report was issued. The report does not need to report information that goes back to the start of the response.

Each national-level report will provide an update on progress towards the stated aim and objectives, performance indicators and milestones.

National-level situation reports (sitreps) must make it clear where there is any deviation from the approved NRP, including the budget.

The SCC will also need to produce sitreps for state or territory agencies and partners, and the state or territory government. These reports will contain more detail about the activities of all the agencies and partners in the jurisdiction. The same sitrep can be used for all these stakeholders, rather than developing many variations of the same report. Sitreps will initially be frequent, and the interval between reports will expand as the context stabilises.

Specialised reports will be needed for targeted activities such as analysis of surveillance to date, the case for eradication and proof of freedom. These reports are usually developed by the SCC. Considerable effort and time will be needed to produce high-quality reports. Consideration should be given to engaging graphic designers or similar to ensure that the reports are of the very highest calibre.

The LCC will also issue regular sitreps. Initially, the LCC reports may be daily and progress to twice weekly or even weekly once the context is stable. The LCC sitrep will clearly articulate the taskings against the tactics and strategy. It will usually include a range of numbers, such as numbers of staff involved in the response, and numbers of premises or animals subject to field activities such as surveillance, tracing, destruction and disposal, movement control actions (including compliance), and sampling and testing. A budget report must be included with each sitrep.

Each sitrep will show data for work health and safety (eg number of near misses, number of incident reports, number of injuries). The number should be reported even when the value is zero. It should be clear whether the reported values are the total since the last report or a progressive total since the start of the response.

The format for a sitrep will usually reflect the policy of the state or territory producing it. The sitrep will typically address:
- the period covered by the report

- what has happened since the last report

- what has been done and changed since the last report

- what is planned or scheduled in the period until the next report is issued

- issues and challenges that need consideration

- a budget report or summary

- reporting against aim, objectives, performance indicators and milestones.

A template for a strategic level sitrep is presented in Appendix 2. *Biosecurity emergency management – response planning guide*[18] provides an outline for a tactical or control-level sitrep.

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[18] www.agriculture.gov.au/SiteCollectionDocuments/animal-plant/pihc/bepwg/biosecurity-emergency-managementresponse-planning-guide.pdf

8 Communications, community engagement and media

Information flow and information exchange through the full range of communication channels will occur at the national, state and territory, and regional or local levels.

At the national level, nationally agreed talking points are usually released by the National Biosecurity Management Group (NBMG). These talking points provide the basis for all parties to develop their communications to partners and stakeholders. The National Biosecurity Communications and Engagement Network, which includes representatives from the states and territories, and from Australian Government primary industries agencies, may actively support communications at the national level.

The Australian Government will liaise and communicate with international stakeholders.

The State Coordination Centre (SCC) of affected states or territories, and the everyday arrangements of the nonaffected states and territories will manage communications with the stakeholders of their jurisdictions. SCC Community Engagement and SCC Media Liaison have primary responsibility for communications outside the area of responsibility of the Local Control Centre (LCC).

The LCC will manage communications, community engagement and media in its designated region or local area. At the regional or local area level, there will be an emphasis on community engagement that encourages community support for the response. The LCC will work to have a dialogue with the local community, rather than just providing information to the community.

A Communications, Community Engagement and Media Plan will support the National Biosecurity Incident Response Plan (NRP). It will set out:

- aim and objectives in support of the overall NRP aim and objectives
- a stakeholder analysis with issues or similar
- the channels, key messages and timing for each stakeholder group
- performance indicators and milestones for monitoring and review of progress against the aim and objectives
- detailed breakdown of costs.

A Communications, Community Engagement and Media Plan template is provided in Appendix 5. The content of the template follows the advice provided in the AUSVETPLAN *Biosecurity incident public information manual* (Parts 1–4).[19]

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[19] www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents

9 Work health and safety

Incident managers have legislative and moral responsibility for all personnel, including contractors and service providers, and people directtly involved in a response. Work health and safety (WHS) includes personnel wellbeing.

National WHS legislation is supported by regulations in most states and territories. Some states and territories have yet to finalise their supporting regulations for the national legislation. Although the legislation provides for the shared responsibility for WHS by all personnel, incident managers and agency heads will be held accountable for the health, safety and wellbeing of personnel.

The context of a response usually means that the WHS risks are higher than for normal, everyday activities. Factors that increase the risks include shift times that are longer than those usually worked, personnel undertaking tasks they would not usually undertake or that they are undertaking for the first time, an unfamiliar operating environment, the stresses and pressures of the response, lack of knowledge or familiarity with the response risks, the extended duration of a response, and response-specific risks such as zoonoses and challenging working environments.

A WHS system must be in place from the start of a response. The system must include development, such as contextualisation of pre-existing documents; selection, development and use of relevant documentation such as risk assessments; safe work method statements; leadership; implementation, including induction; incident reporting; WHS officers and managers; medical plan; monitoring to ensure compliance with documentation; and review of documentation.

The WHS system is one of the systems presented in Appendix 7. The appendix shows the typical outputs associated with a WHS system, the outcomes from deploying the system, the system outputs, and the functional area or role responsible.

Although a cost-shared response can include costs associated with developing and maintaining WHS and related activities and tasks, the cost-shared budget will not cover costs such as increased workers compensation costs for agencies. Some WHS costs will be cost shareable, whereas others will be considered normal commitments.

10   Animal welfare

Animal welfare must be a consideration for any response actions that will affect the welfare of any animals – production or wildlife. Response managers will need to be able to show that they have considered animal welfare for activities such as surveillance (including restraint); culling; movement management; habitat modification or destruction; and accessibility to shelter, food and water. The measures used to ensure the welfare of wildlife must be visible and transparent.

The many measures that are largely taken for granted with production animals may not be easily transferable to wildlife. For example, handling procedures to minimise any impact on animal welfare are well described and practised for production animals. This is seldom the case for wildlife.

11 Finance and administration management

The management of finances by the affected state or territory must be a priority from the start of a response.

A dedicated charge or cost code for a response must be established from the very start of the response – that is, from the first investigation – and all costs must be attributed to that code. A single state or territory agency will be responsible for the financial management of a response. All agencies of the affected state or territory will consolidate their financial management through the designated lead agency.

Response costs are classified as:

- normal commitments (in-kind costs), including costs that an agency would usually incur to carry out its normal activities (eg staff salaries excluding response overtime, infrastructure costs)

- eligible costs, which are the costs incurred when implementing a national biosecurity incident response that are over and above normal commitments, and are eligible for cost sharing. These costs include overtime for staff, wage costs of contractors, cost of equipment hire, service provider costs, travel costs including accommodation, vehicle costs and airfares. Cost-shareable costs are set out in Item 3 of Schedule 5 of the National Environmental Biosecurity Response Agreement (NEBRA).

A detailed response budget will need to be presented in conjunction with a National Biosecurity Incident Response Plan (NRP) or any updated version of the NRP. The affected state or territory will update its budget a number of times during a response. The initial budget is likely to cover only initial control and investigation measures.

The state or territory response budget will detail:

- normal commitment costs and eligible costs of all agencies

- a breakdown of costs for response activities, showing costs for
  – staff
  – agency staff, including wages and salaries
  – contracted staff, including costs for consultants directly involved in the response
  – volunteers
  – allowances

- operating costs
  – additional staff costs (eg costs of backfilling agency staff positions if the National Biosecurity Management Group – NBMG – has approved these costs)
  – laboratory costs
  – costs of stores and equipment
  – other essential operating costs
  – capital costs (can include capital costs for essential equipment but not capital works)

- owner reimbursement costs for enterprises directly affected by a response.

The affected state or territory must be able to show in considerable detail how it determined the costs in the presented budget.

Laboratory costs can include costs for diagnostic and laboratory testing if the work is by an external service and/or the costs are above the normal rates for that work. Additional costs for a government laboratory, such as overtime for laboratory staff, are eligible costs. The everyday full cost of a laboratory test is not an eligible cost.

The budget must include costs for a third-party audit of finances upon completion of the response. The auditors will validate budget processes, correct attribution of costs (normal commitments compared with eligible costs) and reasonableness of expenditure, as well as the overall bottom line.

The owner reimbursement costs under the NEBRA can pay for specified and validated costs of an affected property owner. These costs must be in a budget and may include:

• direct eradication costs

• costs for destroyed property

• costs for additional measures (eg cleaning, pest control)

• costs for activities such as relocation, housing, breeding and rehabilitation of native species that were used as a justification for the NBMG to regard the response as nationally significant.

The budget must include costs for stand-down of the coordination and control centres. These costs will include those for records management, and disposal of unused and surplus stores and equipment. All stores and equipment remaining at the end of a response must be disposed of in accordance with government procedures. The funds arising from the disposal must be returned to the parties.

Successful management of the budget will result from a strong commitment to process, and designated personnel for acquisition of all resources (stores, services, equipment, people), accounts receivable and payable, stores management and financial reporting. Clear business rules must be in place early in the response (eg for use of personal-issue credit cards). The acquisition of a service that is all-inclusive rather than separately acquiring stores, equipment and people has benefits beyond easier financial management and efficient use of the resources.

The NEBRA has no provision to cover costs to replace species, costs for offence conviction, and consequential losses including loss of profits.

A response budget will not include costs for recovery.

There is provision for the private funding of some response costs. Any private contributions are considered on a case-by-case basis by the NBMG.

All expenditure must be in accordance with government policies and procedures.

In approving a response budget, the NBMG will set an upper limit for the budget and a limit that will trigger a review of the response progress against the proposed budget.

Parties other than the affected state or territory that incur costs for activities specified in the NRP (eg providing staff to assist the affected state or territory) will claim their eligible expenses from the nominated lead agency of the affected state or territory. Such eligible expenses will be detailed in the budget for the NRP.

The affected state or territory will regularly submit a claim for reimbursement of costs no less than every 3 months during the response. All finances will be finalised within 6 months of the NBMG decision that the response is finished – that the emergency wildlife disease is either eradicated or not technically feasible to eradicate.

The formula for the proportional allocation of costs is complex. The Australian Government contribution to a NEBRA response is 50% of the total costs. The formula to determine the proportional allocation of the remaining 50% of costs is provided in Section 7 of the NEBRA, and takes into account the potential distribution of a pest or disease and the population of the affected species of concern in these affected areas. This is usually determined in consultation between the parties, including the Australian Government, with input from relevant species population experts.

Each situation report to the national level will include a detailed report on progress against the approved budget. The report must include expenditure to date and commitments, and clearly reflect any variances from the approved budget.

Appendix 1 National Biosecurity Incident Response Plan template

The key components of the National Biosecurity Incident Response Plan (NRP) are as follows.

Cover and title page, including:

- response name

- plan version

- date of version

- agency logo

- branding (eg picture that links reader to document and response)

Page early in document to show:

CONFIDENTIAL
NOT FOR UNAUTHORISED DISTRIBUTION

Situation

- Strategic current situation or situation update (do not just repeat current situation report)

- Include maps, diagrams, graphs and pictures

Disease

- Biology of the organism or disease

- Aetiology

- Risks of the disease

- Timeline of significant events of disease during response

National significance of outbreak

To be included in initial NRP and later versions where the context has changed

Technical feasibility of eradication

To be included in initial NRP and later versions where the context has changed

Strategic risk assessment

To be included in initial NRP and later versions where the context has changed

Cost–benefit analysis

To be included in initial NRP and later versions where the context has changed

Aim and objectives with strategy(s) and tactics

Statistical basis (or similar) as basis for strategy(s) and tactics

Execution (operational activities), which may include the following activities that can be described in detail in a supporting plan for each or combined:

- Surveillance

- Identification and diagnostics

- Tracing

- Movement management

- Vaccination or other treatments

- Destruction, disposal and decontamination

- Population evaluation

Note: Actions by other jurisdictions may needed to be included here if they are not included in the NRP.

Resourcing – staff, personnel, contractors, partners:

- Control and coordination centres

- Field activities

- Logistics

- Whole of government

Administration and financial management arrangements

Communications, community engagement and media

- Strategic details and activities – refer to Communications, Community Engagement and Media Plan

Governance and management

- Command, control and coordination – including control and coordination structures and location

- Whole-of-government participation

- Partner and stakeholder participation

- National-level arrangements if different from the usual arrangements (eg technical review group)

Performance indicators and milestones

- Cover all activities of the response and not just field activities (eg laboratory performance, communications and media)

- Includes any review points of the response

Budget

• Indicative total budget – detailed, showing normal commitment costs (in kind) and eligible costs for each functional area (will need to demonstrate how costs were determined)

• Budget report showing any deviation from indicative budget if not initial version

• Detailed tables supported by graphs

References

• Any references citied in NRP, especially under 'Disease'

Appendix

• Any supporting documents such as Surveillance Plan; Resource Plan; and Communications, Community Engagement and Media Plan

Appendix 2 Situation report template and guidelines

Preparing a situation report

- A situation report (sitrep) should be a concise description of information for the period covered by the report. The operational period is the time since the last report was issued (what has happened, progress to date) and the time until the next report is issued (future progress, what will be done).

- Information going back to the start of a response is not usually included in each version of a sitrep. A very short narrative of key events since the start may be included (eg start date, key decision dates).

- Sitreps present information that allows the reader to develop a high level of shared situational awareness. The sitrep should be the headlines presented in a way that tells the story. Ideally, it includes maps, graphs and tables of collated and anlaysed data that present the picture, rather than the reader having to do their own analysis. Lots of numbers do not tell the story. What story are the numbers telling?

- Where relevant, each section of the sitrep should show variation since the last report (increase, decrease, stable, etc).

- Any variation to predicted and scheduled actions and tasks, tactics, and so on should be reported.

- The sitrep should not just be a list of tasks or actions. It is not a job list.

- The sitrep from the State Coordination Centre (SCC) is a strategic-level document that will be read by senior managers and ministers. It should include an executive summary for this audience. Other readers will want more detail.

- It is important that the SCC reports against aim, objectives, performance indicators and milestones of the National Biosecurity Incident Response Plan.

- The sitrep by the Local Control Centre is an operational reporting document. It is important that readers are appraised of progress in the field.

- Usually, the full period between sitreps will be needed to collect, collate and analyse the information to go in the sitrep. One-third of that time will be given to actually drafting the sitrep.

Cover page

- Agency logo and letterhead
- State Coordination Centre name and location
- Address and contact details
- Response title

Report	State Coordination Centre Situation Report	
Issue date	Date sitrep issued	Report number (sitrep report number since start)
Time period	Start date and end date for sitrep	Version (draft/final)
Projection	Period forward covered by sitrep (eg 2 weeks)	
Distribution		

Executive summary (4–5 key points – headlines)

- Report progress towards stated aim, objectives, milestones and performance indicators.
- Key numbers – number of personnel (up or down since last sitrep).
- Operational outcomes (eg number of new cases, increase or decrease in number of infected premises).
- Budget summary and bottom line (eg as per scheduled budget).
- Intentions and outcomes of the coming report period.

Situation to date (what has happened)

- Overview of the key points from the period covered by the current sitrep version.
- The current version can include a short summary of key events that may have triggered the response, if this gives context to the current version of the sitrep (eg start date, date of confirmed national funding, date of first vaccination, date of last case detected).
- The situation to date should not be a narrative of matters and outcomes since the start.
- A graph or map will often clearly articulate for the reader the current situation in an operational sense. Before-and-after graphs, maps or tables will shows changes since the last sitrep.

Progress to date (what has been done)

Overall progress
- Key achievements during the period since the last sitrep.
- Report against progress towards aim, objectives, performance indicators and milestones. Reporting against measures is important in each sitrep.

Operations activities and outcomes
- Maps, numbers, graphs, tables to show the results of field activities.
- Pictures can be used if they will develop a shared understanding by the reader better than text.
- Report for each operational functional area (eg surveillance, vaccination, compliance).
- It should be clear what the changes have been since the last sitrep – increase or decrease?

Planning activities and outcomes
- Report on outcomes of analyses.

- Maps, tables, graphs to show progress towards stated outcomes.

Logistics activities and outcomes

- Resourcing levels (eg numbers of personnel and staff per day, including by agency and partners; contractors; units of resource).

- Facilities management and related activities.

- Records management may include number of files, emails sent and received, files archived.

Management

- Can be included if it is important to demonstrate structure and systems across a large response.

- May be as simple as management structure given by Biosecurity Incident Management System or Incident Control System for a level 3 incident.

- Changes in personnel in key roles are often worth reporting

Information services

- Optional but necessary where IT and communications (phone and digital) are a reportable area, such as in budget.

Communications

- Report on channels used, stakeholder contacts, and metrics presented in tables and graphs.

- Report on meeting milestones and performance indicators, including those for community engagement and government.

- Present images such as extracts from print, social media or web. This can include attached electronic recording from radio, television and online, or link to demonstrate channel use to each stakeholder.

Legal

- Optional – included if there have been legal activities as a result of the response (eg legislation is effective, number of infringement notices issued, case referred to court).

Compensation – owner reimbursement costs

- Graphs and tables to show status of any claims – claim number, number processed, number declined and not eligible.

- Changes since last sitrep.

Health, safety and wellbeing

- Numbers, tables and graphs to show near misses, minor injuries, and so on, with a progressive total and total since last sitrep.

- Provide the back story on any significant incidents (near miss or actual), taking into account the need for personal privacy and legal matters that may be pending.

Other headline activities

- Examples are visits or inspections, audits, reviews, debriefs.
- It is important that the reader does not find out about something from another source that they feel should have been in the sitrep.

Future progress (what will be done)

Overall progress

- Planned key achievements during the next reporting period.
- Refer to progress against aim, objectives, performance indicators and milestones.

Operations activities and outcomes

- Activities and tactics scheduled for the next operational period, and the outcomes upon completion during the period.
- Present by functional area (surveillance, vaccination, compliance, diagnostic testing, etc).
- Indicate any variation or changes that are planned for the period.
- Are there any risks? Treatments? Advise at this time so there are no surprises in the next sitrep.
- Are activities stable, increasing or decreasing?

Planning activities and outcomes

- Report analyses and reports scheduled for the coming period.
- Maps, tables and graphs that will be developed and have not been produced previously.

Logistics activities and outcomes

- Predicted resourcing levels (eg numbers of personnel and staff per day, contractors, units of resource – will they rise or fall?).
- Changes in facilities management and related activities.
- Ongoing records management may include number of files, emails sent and received, files archived.

Information services

- Optional but necessary where IT and communications (phone and digital) are a reportable area, such as in budget. Are new or revised platforms, software, databases, and so on being deployed?

Communications

- Scheduled channels deployment during the next period, noting unusual activity, such as specialty markets, shopping centres or presentation to partner forums.
- Predicted progress on meeting milestones and performance indicators, including those for community engagement and government.
- Variations – updates and changes to material used for different channels.

Legal

- Any pending legal matters that will be dealt with in the coming period.

Compensation – owner reimbursement costs

- Activities associated with managing and processing claims.

Health, safety and wellbeing

- Specific actions (eg external audit) in addition to pre-existing systems activities that will be deployed to ensure zero fatalities and injuries.

- Update on any investigations or reports into near misses or injuries.

Other headline activities

- What else will be occurring or may occur that the reader should know about (eg commence planning for stand-down)?

Issues

- Are there matters that will or may need escalation and/or external support for decision or resolution? It is important that matters raised here are not a surprise to those with the authority to address the matter. It is about making the wider audience aware.

Developed (Planning Manager)

Approved (Coordinator)

Date and time

Appendix 3 Selection of options – appreciation flowchart and guidelines for completion

An appreciation is used as a decision support tool. It provides a structured, systematic approach to selecting a strategy or tactic (course open or option) that will deliver the aim and objectives. The flowchart presents the pathway to be followed to complete an appreciation (Figure A3.1).

Context, aim and objectives must be described before working on factors, options or courses open, and assessment of the options.

Factors are criteria that are likely to influence the delivery of a course open or option. Typical critical factors are resources available or resources not available, time available to start or time to complete the option, and cost. Factors are often also a risk covered in a risk assessment.

Each factor should be well described to ensure that the intent of the factor is understood. For example, what does a factor shown as weather mean? The factor intended might be that the weather during the period of the operations will be very hot and dry. This is very different from a factor that cyclones are likely during the operations period. Both are weather, but they have very different meanings and will interact differently with each course or option.

Courses open or options can include a 'do nothing' option. The option of 'do nothing' does not mean that no actions or tactics will be undertaken – that is, it does not mean that the response is immediately terminated with no tasks undertaken. The 'do nothing' option will need to be supported by a range of tactics and actions to deliver outputs and outcomes to address the manageable risks associated with this option. A significant manageable risk when considering the 'do nothing' option may be public outrage. Communication, education and awareness are actions that often support the 'do nothing' option.

The process can be qualitative, as shown in Figure A3.1, such as for strategy(s) or tactics. Alternatively, the process can be more quantitative, by using a table or spreadsheet, such as in Table A3.1.

Once the preferred option is selected, it should be subject to a risk assessment. The risks associated with the selected option or course open will usually include factors.

It is important that all options are considered as part of the process. One or more options may include a combination of other options (ie one option may include a combination of tactics or tasks).

In some contexts, the preferred option may not be cost shareable (eg breeding to retain genetic diversity).
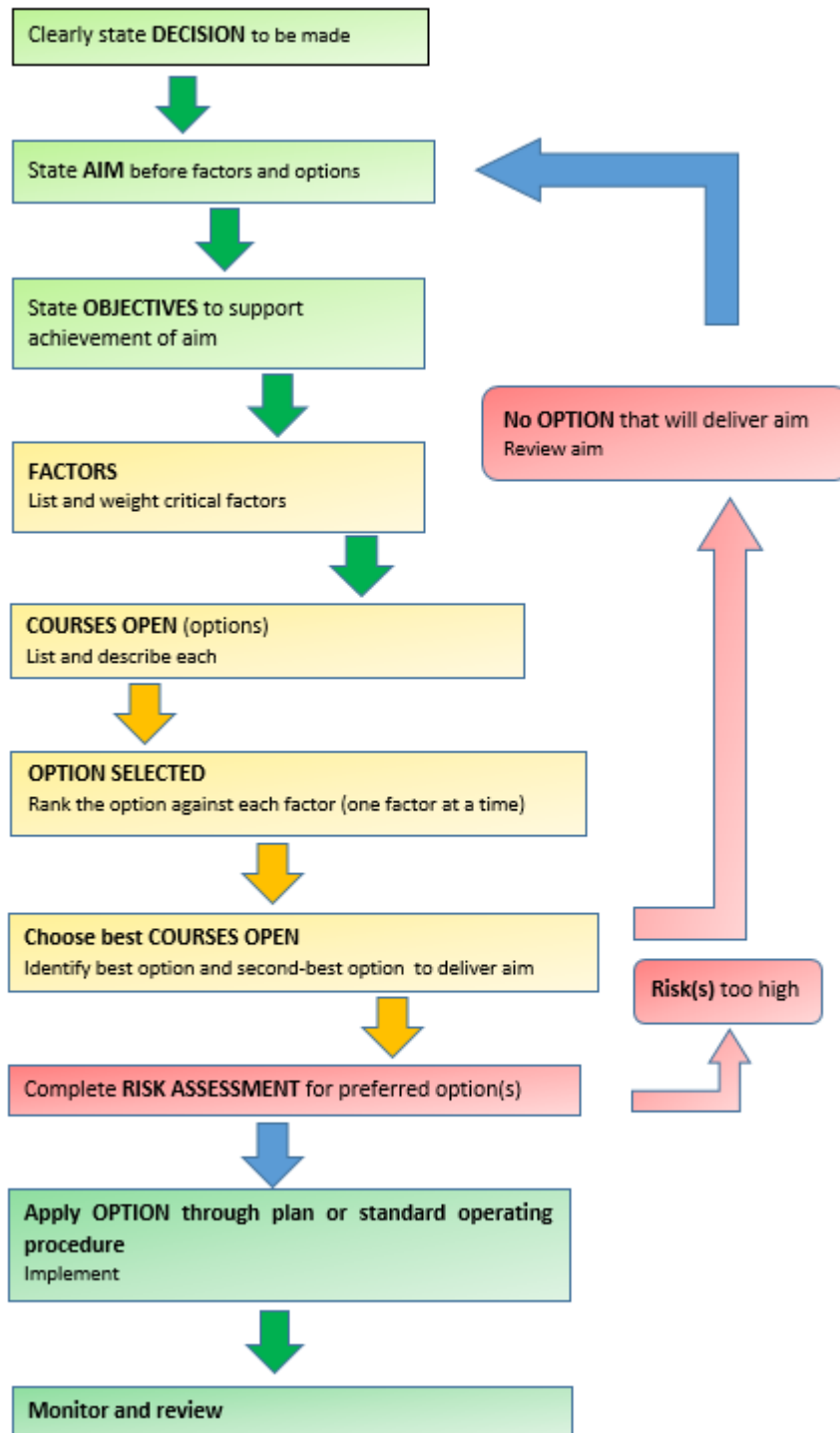
Figure A3.1   Appreciation flowchart to support selection of a preferred option, such as for strategy(s) or tactics

Table A3.1 Appreciation table to support decision making for option selection

Options	Factor rating											
	Resources needed, type, number (W = 3)	Resources available, type, number (W = 3)	Time available (W = 1)	Accessibility of host population (W = 2)	Time required to complete (W = 3)	Partner/community support (W = 1)	Weather – current, future (W = 2)	Political support access (W = 1)	Availability of testing method (W = 1)	Impact on community (eg transport) (W = 2)	Cost (W = 1)	Total for each option
Option 1		**R = 1** **R × W = 3**										
Option 2		**R = 3** **R × W = 9**										
Option 3		**R = 4** **R × W = 12**										
Option 4		**R** = 2 **R × W = 6**										

R = ranking; W = weighting
Note: Factors, weighting and rankings are examples only.

Guidelines for management of an emergency wildlife disease response

Guidelines for completing appreciation table

Factors

Text or numerical information describes each factor in association with the option (eg 3 days of fine weather).

Weighting (W)

Each factor is weighted.

The weighting score can be 1, 2 or 3, where 1 is least important and 3 most important.

There can be more than one factor with the same weighting value.

Options

Can include a 'no action' option as a control.

Options may be a variation on a single option (eg there may be more than one indirect option).

Ranking (R)

Each option is ranked from lowest to highest (numerical).

The ranking is separately done for each option–factor combination. The ranking is repeated for each option.

Lowest ranking = least acceptable or preferable.

Highest ranking = most acceptable or preferable.

Each rank numerical value is only used once. For example, if there are three options, one option is scored 1, the second 2 and the third 3.

Rating for the factor against the option

Rating = $R \times W$

Option total

The total for each option is the sum of the ratings for the given option.

Final option score = sum of ratings ($R \times W$) for the option.

Theoretically, the option with the highest total is the 'best' option.

Appendix 4 Strategic risk assessment template and guidelines

Considerations for transforming the template into a risk assessment

- Appropriately trained and qualified personnel should transform the template into a strategic risk assessment.

- Be very clear on the response context before starting the assessment.

- Aim and objectives for the response should be well described and understood.

- Each of the key risk categories – political, environment, economic, social, technical, operations, legal (PEESTOL) – should be assessed.

- The specific strategic risks in the template are indicative only. Each risk will need to be assessed for relevance to each response. The listed risks should not be considered the only risks for a response.

- Completion of the risk rating should follow the Australian Standard for Risk Assessment and Animal Health Australia guidelines for risk assessment.[20]

- The treatments to reduce the risks are indicative only, and will need to be contextualised to the response and the risks of the response. The listed risks and treatments are not intended to be used a checklist.

- The cell colour after treatment (green, amber, red) in the table is a reminder that this risk rating must be completed after application of the proposed treatment. Each colour must be assessed for each risk in each response. The colours as presented in the table are not intended to indicate the risk rating after treatment.

- Risks with a high risk rating are likely to a factor (critical factor) in one or more strategic appreciations for a response (eg selection of strategy or tactics).

The following template format is used by New South Wales, the Northern Territory, Victoria and Western Australia in various forms.

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[20] www.animalhealthaustralia.com.au

Table A4.1 Strategic risk assessment register

Specific strategic risk	Likelihood of occurrence	Consequence rating	Risk rating pre-treatment	Treatments to reduce risk
	A Highly unlikely . B Unlikely C Possible D Likely. E Highly likely	1 Insignificant . 2 Minor 3 Moderate 4 Major. 5 Extreme	Low ongoing monitoring Medium active management required High intervention required Critical urgent attention	Risk rating post-treatment Low ongoing monitoring (green) Medium active management required (amber) High intervention required Critical urgent attention (red)
1 Technical risks				
1.1 Disease dispersal risks				• Movement/decontamination procedures • RA/CA/zone management approach • Monitoring outside known infected zones • Targeted surveillance • Communications and community engagement Green cell colour = low risk rating post-treatment
1.2 Disease agent environmental resilience/survival				• Targeted surveillance based on risk • Routine everyday procedures for detection and reporting of exotic/foreign diseases • Research (not cost shareable) Amber cell colour = medium risk rating post-treatment
1.3 Disease • host • alternative hosts (wildlife) • alternative hosts (production animals)				• Structured systematic approach to surveillance over time • Randomised surveillance with high level of confidence undertaken on population of known hosts and potential hosts • Community and partners are educated on signs of disease and encouraged to report suspect, and each report is investigated Red cell colour = high risk rating post-treatment

1.4 Detection methods – sensitivity, precision, availability, capacity				• Structured systematic approach to surveillance, including repeat inspections at specified intervals over time • Community and partners are educated on signs of disease and encouraged to report suspect, and each report is investigated • Routine everyday procedures for detection and reporting of exotic/foreign diseases
1.5 Diagnostic/ identification methods, sensitivity, precision				• Multiple screening for high-risk sites • Laboratory testing for high-risk investigations – suspect outside existing zone or new area of infection • Testing available elsewhere in Australia • Research and test development (not usually covered by cost sharing)
1.6 More than 1 disease present in target population				• As for 1.4
1.7 More than 1 strain of the target disease present in target population				• As for 1.4
1.8 Lack of knowledge of target organism or disease				• Structured systematic approach to surveillance and analysis of collated information to inform decision making • Research (not usually covered by cost sharing)
2 Operational risks				
2.1 Inadequate resources – stores, equipment and people for field operations and specialised operational areas. There may be specific risks				• Systematic and structured approach to management and operation of control centre, including functional planning (eg resource planning, not just operational planning), and development and implementation of logistics systems • Well-described procedures that are applied, and monitoring and

associated with rate-limiting resources				review to ensure consistency of application of procedures • Scheduled third-party audits at specified times • Operate in accordance with government policy • Role descriptions as per BIMS/ICS are in place and applied • Performance management approach adopted for majority of Incident Management Team roles
2.2 Human resources not suitably skilled/qualified/ experienced for allocated role or position				• Role descriptions as per BIMS/ICS are in place and applied • Formal recruitment undertaken to fill key positions where response is protracted (eg >8–10 weeks) • Performance management approach adopted for majority of roles • Just-in-time training and assessment undertaken to fill 'gaps'
2.3 Infected host movement				• Legislation used to implement movement management areas • Prosecution, where applicable • Movement Control Plan developed, implemented and monitored • Compliance activities undertaken in structured and systematic way to ensure that movement controls are effective • Communications and Community Engagement Program used to educate community and partners to support management of risk movements • Review and audit to confirm that movement measures are meeting milestones • Everyday factors such as distance, distribution of hosts and natural dispersal pattern limit dispersal

2.4 Ability to find and access hosts				• Structured and systematic approach to identification of hosts. This includes matching the level of effort to the level of difficulty, and systematic assessment of each area/zone • Data collection, collation and analysis undertaken to monitor progress and identify gaps in knowledge of distribution • Review and audit to confirm that movement measures are meeting milestones • Communications and Community Engagement Program encourages community and partners to report and identify hosts • Call centre in place to process reports • Alternative technologies used to locate hosts
2.5 Significant injury/death in response workforce				• WHS system in place, including monitoring and review (AAR, audits – self and third party) • Induction compulsory • Medical plan part of IAP • Safety Manager in place • Administrative controls in place, including risk assessments, safe work method statements, procedures and training • Incident reporting system in place • Workplace culture is well developed to support best practice – personnel are empowered to not undertake task if not safe • WHS procedures are tested • Placement of right person in right role – knowledge, skills, abilities, experience and physical abilities are matched to role/task • Everyday WHS obligations, legislation and requirements are met • Rrisk assessment undertaken for all field activities

2.6	Significant injury/death related to response activities in community				• As for 2.5 • Communication and Community Engagement Program to support achievement of WHS objectives
2.7	Response does not operationally deliver on stated aim, objectives, milestones and performance indicators				• Structured and systematic approach to management of operations, including planning, supported by good analysis • Review and monitoring, including by third party, is part of standard business approach • Milestones in place to indicate progress towards aim and objectives • Resource effort to match stated outcomes and deliver standard outputs • Data collection, collation and analysis undertaken to monitor progress and identify gaps in knowledge of host distribution • Review and audit to confirm that movement measures are meeting milestones • Communications and Community Engagement Program encourages community and partners to report • Call centre in place to process reports • Flexible approach to adopting tactics and tasking using a zone-by-zone approach to meet needs in a zone (eg demographic differences between areas/zones)
2.8	Flexible approach to use of tactics is not applied; best strategy(s) and/or tactics not chosen				• As for 2.7
2.9	Poor use of systems/structures for information management, leading to response not knowing what it should know				• Systems approach in place and validated by auditing • Trained and qualified staff in place for use of system • Review and monitoring to be scheduled and reported upon • Planning function to be actively involved in collation and

				interpretation of data, and providing clear direction to operations on best practice for use of system • Standard topic for AAR of LCC personnel
2.10 Deliberate spread of EWD, or concealment of host or EWD				• As for 2.3
2.11 Response deviates from the agreed intent and the way forward				• Clearly stated aim, objectives and supporting milestones in place • Review and monitoring, including by third party, to become part of project management • Routine reporting undertaken to indicate either on track or deviation • Performance management approach for roles • Third-party audit (eg efficiency audit, midterm review) • Governance arrangements at national level
2.12 Laboratory capacity and capability do not meet operational needs				• Change in principles underpinning the need for laboratory testing to support routine surveillance to reduce the load on laboratories • Laboratory testing is used for high-risk investigations – suspect outside existing zone or new area of infection • Testing available elsewhere in Australia
3 Social and community risks				
3.1 Community does not support the achievement of aim and objectives – has no confidence or loses confidence in the response				• Communications and Community Engagement Program encourages community and partners to report/identify noncompliance, suspect cases, etc • Call centre in place to process reports • Review and monitoring to be undertaken to assess success of

				Communications and Community Engagement Program
				• Performance indicators and milestones in place for Communications and Community Engagement Program, and reviews undertaken against these
3.2 Response does not acknowledge/ recognise the different needs of different demographic groups in community				• As for 3.1
3.3 Information to the community is not timely or does not meet their needs				• As for 3.1
3.4 Failure of community engagement program to build support for response				• As for 3.1
4 Economic and budget risks				
4.1 Funding support is withdrawn				• Good situational awareness by key stakeholders based on timely and quality reporting, including budgets • National decision-making processes in place • Aim, objectives and milestones in place • Review and monitoring, including reporting, to become routine for response management • Third-party audit to maintain confidence of parties
4.2 Costs and/or funding not managed adequately				• National governance arrangements for budget management in place • Timely and detailed reporting on budget • Systematic and structured approach to fund management • In-house audits, including audits by government agency

				• responsible for budget management • Review and monitoring, including by third-party audit, to ensure that systems are in place and delivering as intended • Personnel with responsibilities related to funds management, including approval, are suitably knowledgeable and skilled
4.3 Finance management not adequate to meet standards and allow good management of finances				• As for 4.2
4.4 Procurement processes inadequate to meet government standards and deliver cost effectiveness				• As for 4.2
4.5 Partner and stakeholder businesses and allied industries collapse or withdrew from sector				• Active participation by partners in decision making as it relates to their business • Recovery plan developed and supported by government • WOG approach to maintenance of government partners • Use of partner resources as part of response delivery, where appropriate
4.6 Response significantly overspends				• As for 4.2
4.7 Significant overrun in time to complete response, resulting in requirement for further funding				• As for 4.1

4.8 Trade implications through loss of confidence by trading partners				• Structured and systematic management of response • Compliance with international requirements • Monitoring, including auditing, to ensure high level of confidence in actions • Quality and timely reporting to partners
5 Environmental risks				
5.1 Adverse weather (eg heat, wet season, cyclone season) affects ability to complete field operations				• Planning to allow for normal seasonal variation, including in summer heat and bushfires, wet season, cyclones • Planning to allow for natural disaster impacts on timely delivery of outcomes • Alternative approaches to field operations • Increased resourcing to complete field operations before weather adversely affects ability to deliver stated outcomes
5.2 Destruction and disposal actions have negative impacts on environment				• Planning to consider and select options to minimise impact on environment • SOPs in place to ensure consistency and reproducibility • Scheduled audit and review of compliance with SOPs • Environmental monitoring part of normal business
5.3 Operations activities such as decontamination have negative impacts on environment				• As for 5.2
5.4 Operations activities cause population				• Planning to consider and select options to minimise impact on

loss, significant reduction in target host populations or loss of genetic diversity				target and nontarget host populations • SOPs in place to ensure consistency and reproducibility • Scheduled audit and review of compliance with SOPs • Monitoring of target and nontarget populations is part of normal business • Piloting of any procedures that are assessed as high risk to target and nontarget populations • Isolate some of the potential at-risk populations and/or preserve genetic material

6 Political risks

6.1	State or territory government support is not sufficient to support the ongoing response				• Normal everyday advice to government to give confidence in response • Aim, objectives and milestones stated • Monitoring and review to be normal for response management • National decision and reporting processes in place • Routine sitreps provided to government • Government/ministerial liaison in place • WOG arrangements are followed
6.2	Local government support is not sufficient to support the ongoing response				• As for 6.1
6.3	Partner chief executive support is not sufficient to keep the response going				• As for 6.1 • Partners encouraged to actively participate in response at all levels • Partner agencies given every opportunity to be part of the response
6.4	Inadequate governance of response at state or				• Governance arrangements are well described and practised • Review and monitoring at each level to be undertaken

territory and national levels				
6.5 WOG commitment is less than required to meet the needs of the response				• As for 6.1
7 Legal risks				
7.1 Inadequate powers to support response				• Existing powers are well rehearsed and used successfully • Powers have been adequate over time • Validate use of powers before actual use of the authority • Legal advice is always sought before powers are exercised
7.2 Legal requirements not appropriately recognised or complied with by partners/community				• Communications and Community Engagement Program encourages community and partners to identify and report noncompliance • Call centre in place to process reports • Review and monitoring to be undertaken to assess success of Communications and Community Engagement Program • Compliance and other movement control activities to manage any inappropriate actions by community or partners • Compliance Plan that includes audits and performance indicators/milestones
7.3 Declared areas/zones do not meet operational, community and technical needs				• As for 7.2 • Planning to systematically assess risks for each zone and develop options to mitigate the risks to an acceptable level • Movement Control Plan and/or Compliance Plan in place and developed in collaboration with key partners and stakeholders

7.4 Conflict between the legislation that is applicable to the response (eg biosecurity legislation) and endangered and protected wildlife legislation				• Legal advice is always sought before powers are exercised • Planning to identify legal risks as part of situation analysis • Time and space are adequate to ensure that legal risks are addressed ahead of implementation • Novel and unusual options that allow for legislation requirements are considered for strategy(s) and tactics

AAR = after action review; BIMS = Biosecurity Incident Management System; CA = control area; EWD = emergency wildlife disease; IAP = Incident Action Plan; ICS = Incident Control System; LCC = Local Control Centre; RA = restricted area; SOP = standard operating procedure; WHS = work health and safety; WOG = whole of government

Appendix 5 Communications, Community Engagement and Media Plan template and guidelines

Appropriately trained and qualified personnel should transform the template into a plan.

A key reference document is the AUSVETPLAN *Biosecurity incident public information manual* (Parts 1–4).[21]

This plan format was developed by NSW Fisheries.

Cover page

- Agency logo and letterhead
- State Coordination Centre name and location
- Address and contact details
- Response title hazard or incident name

Project description

Background information, including current situation or situation update

Objectives

Communication aim

Support overall control and containment aim and objectives

Communication objectives

3–5 points

Strategy

Focus of initial awareness program

Communications and community engagement supporting control and containment operations

Communications dissemination

Broader awareness and surveillance program

Target audiences and stakeholders

Stakeholder analysis summary

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[21] www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents

Table A5.1 Stakeholder analysis summary

Audience	Potential issue	Communication channels	Comments and issues

Key messages

Key messages are likely to change throughout the response. The channels listed below are likely to apply in the initial stages of the response only. New key messages are likely to be needed for later stages.

5–8 points

Communication channels, mediums and methods to reach target audiences

Under this plan, a number of channels and methods will be used to reach particular target groups. Integration of communication tools will be an important factor. Media releases, flyers, brochures, posters and signs are used to create awareness. The awareness products need to link to websites or hard-copy publications for more detailed information, or specific advice and instructions. Awareness on its own is unlikely to change behaviour and often needs supporting information, face-to face follow-up, repetition (in a different form) or collaboration from other authoritative sources.

Multipliers

Multipliers are people or organisations with the potential to pass messages on to other stakeholders. These are often people with their own networks. Multipliers increase the breadth of distribution and, in doing so, add weight to the communication. The fact that a respected source has passed on or reinforced a message is likely to increase the likelihood that the message will be accepted.

The tactic adopted in the plan is to proactively supply information and updates to key groups. In most cases, staff and personnel within the response will be tasked to maintain communication with important stakeholders.

Ongoing contact with partner and industry associations will be tasked to the 'partner and industry liaison' section within the response framework.

All contacts with state, territory and Australian Government agencies are classified as contacts with multipliers.

Email updates (see below) will also be an important medium for keeping stakeholders informed; they will be requested to redistribute the updates within their networks as well.

Local press and radio (in targeted infected areas), as well as key stakeholder groups, are important multipliers.

All contact is usually through the State Coordination Centre or a nominated spokesperson. All media enquiries must be referred to the media contact.

Multipliers are an important awareness medium when there is something new or different to report. It is likely to be difficult to get routine messages published after the initial interest or while there are more interesting stories to report, so the media should not be relied on as the sole awareness medium.

Website

Websites are good for providing detailed information and linking stakeholders to reliable sources of supporting data. They are not a good awareness medium. Various awareness tools need to be used to drive people to websites to get the most up-to-date and detailed information.

A number of different websites will be used for different target groups and purposes.

Existing websites will be linked to the reference primary sites (eg www.outbreak.gov.au).

Publications

Publications will be used to create awareness and provide information to all public target groups. Where feasible, publications will be designed to leverage off existing publications.

All publications should link back to one of the primary public websites, such as www.outbreak.gov.au. This linkage is an important part of website promotion, which is important for keeping stakeholders up to date with the progress of the response.

Publications that may be produced include:

- flyers and factsheets
- identification card
- hygiene guidelines.
- posters.

Signage

Signage will be an important awareness medium for many target audiences. All signs should include a website address for more information. Types of signage are:

- general awareness signs
- specific signs giving directions related to any control or management operations (including movement restrictions)
- specific signage at infected sites.

Signs come in many forms, including static (eg billboards, mobile roadside high-visibility signs) and mobile (eg wrapped buses). Smaller signs such as A-frames are useful in areas such as shopping centres and markets.

Signage on response vehicles should be considered.

Email update

An email update will target client groups with a direct interest in the disease incursion, as well as likely multipliers (see above). The aim of the update is to provide accurate and regular information from a respected source on what is happening in the response operation.

In addition to routine information, the update can be used to highlight new information resources, reinforce key messages, and counter inaccurate rumours or extreme views from stakeholders. The update should meet the following criteria:

- Issued on a regular and predictable basis (eg once or twice per week). The timeframe needs to be predictable and reliable – for example, by 5:00 pm on Tuesdays and Fridays. The schedule can be changed as the operation proceeds, but it is important that the schedule be rigorously maintained.

- Can draw information from the sitrep, and information must be consistent with the sitrep. However, all information in the update must be written in plain English (without jargon, acronyms, etc). The email update is for the average person.

- Reports things such as new infestations. It can state the obvious – for example, 'no new infestations have been observed for 2 weeks'.

- Advises on any new resources available and how they can be obtained.

- Reinforces the key messages with reminders, but should avoid static, unchanging sections. People will not constantly re-read things they think they have already seen.

- Directly addresses any negative rumours or opinions. It should encourage people to use factual and reliable sources of information, and to check before they act on rumour.

- Friendly and informative in tone.

- Distributed direct to a stakeholder email list and posted on the website. People should be encouraged to print it out and hand it around. A more formal 'noticeboard' campaign at several key locations could be considered.

Direct liaison by operations centre

Contact with a small number of key stakeholders will be tasked to specific staff or sections within the operational structure (as shown in the organisational chart and plans).

Hotline

The hotline will be the single point of general enquiry from public stakeholders. It can be accessed by telephone or email and is supplemented by an online reporting form.

Face-to-face activities

Face-to-face activities will focus on the key target audiences in areas where the disease has been confirmed. It will be important for these activities to provide for two-way exchange of information and for more detailed discussion of issues affecting the stakeholder groups. Face-to-face activities will be supported by publications, and participants should be referred to the websites for more detailed information, when appropriate.

Face-to-face activities may include:

- individual visits from extension or compliance staff
- community meetings
- field days
- education programs
- community engagement activities, including pop-up booths at field days and shopping centres, information provision and discussion by field staff, and school presentations.

Other channels

Media may be specific to a target audience.

Response branding should be considered for response operating over a protracted period. Branding should be considered for business cards used by field personnel completing their duties, and for uniforms (including personal protective equipment).

Table A5.2   Communications activities

Method	Description	Audience(s)	Budget	Deadline	Responsibility
Publications	Interim awareness flyer				
	Identification card				
Websites					
Hotline	Phone and email hotline, and online reporting form				
Media	Media releases as needed				
Face-to-face	Community meeting				
	Field day				
	Education program				
Signage	Control operations signage				
	General awareness signage				
Community updates	Twice-weekly community updates, providing accurate and current information, and constantly reinforcing the key messages				
	Email subscription list				
Other	Facebook, Twitter, Instagram, Flicka				

Performance indicators and milestones

Budget

Detailed budget that attributes cost to each activity

Appendix 6 Incident Action Plan template for use at LCC level

This is a generic template for an Incident Action Plan (IAP), which should be completed by appropriately trained and qualified personnel.

Cover page:

- Agency logo and letterhead

- Local Control Centre (LCC) name and location

- Address and contact details

- Response title hazard or incident name, if applicable

Location:

Control level:

Operational period – From: **To:**

Table A6.1 Incident Action Plan

Situation	
Disease, community, environment	Current
Weather, disease trends, resources, hazards and safety	Predicted
Reference:	
• Maps, weather reports, sitreps, appreciation, warnings, alerts	
Aim and objectives (or mission)	
Time and space; SMART	Current
Reference:	Alternative
• Strategy, tactics, appreciations	
Execution (add safety information as appropriate)	
General outline	
• What, where, when, who taskings for tactics (eg surveillance, vaccination) – current, proposed, alternative	
Reference:	
• Appreciation, control options, Resource Plan, supporting plans (eg surveillance)	

Groupings

- How are the tasks
organised into functional
groups to deliver
(eg sectors, divisions,
premises)

Coordinating instructions

Prompts:

- Timings, routes, assembly
areas, staging areas

Administration (logistics support to field operations)

Unit names, locations, contact names, phone numbers, timings, duties/tasks, routes, suppliers, quantities, status (eg required)

Supply:

- Who, what, where, when of
resources not readily
available. Use the field for
rate-limiting resources – do
not attempt to show all
resources

Ground support:

- Transport of personnel,
traffic management,
refuelling, mechanical
repair and maintenance

Communications:

- Resourcing for radios,
phones (installation and
management of extensions),
maintenance, help

Staging area/FCP:

- Facilities and services
available at FCP and
staging area
- Setting up,
communications, staffing

Administration (internal logistics services)

Unit names, locations, contact names, phone numbers, timings, duties/tasks, routes, suppliers, quantities, resource status (eg required)

Facilities:

- Security waste cleaning

Catering:

- Arrangements for feeding
control centre personnel
and field teams

Finance:

- Cost code(s), arrangements
for approvals

Travel:

- Arrangements for travel to/from control centre, field, etc, if not covered in coordinating instructions

Induction and training:

- Timing, location

Accommodation:

- Arrangements, allocations

Control, coordination and communication

Control and coordination structure:

- Reference structure chart

Coordination and liaison:

- Local knowledge, police, agency reps, emergency management reps

Communications:

- Communications structure, operations comms plan, information management

Safety

WHS, medical:

- Medical plan, first aid plan (attach key points here)

Extras

Attachments	Maps, weather	
	Organisational chart	
	Communications, Community Engagement and Media Plan	
	Resources Plan	
	Medical Plan, Evacuation Plan	
Plan developer and recommendation	Planning Officer, Logistics Manager	Controller
Date and time		
Approval	Operations Manager, Planning Manager	Controller
Date and time		

FCP = Forward Command Post; SMART = Specific, Measurable, Attainable, Realistic and Timely; WHS = work health and asfety

Appendix 7 Outputs, outcomes and function/role responsible for systems

Table A7.1 Outputs, outcomes and responsibility

Guidelines for management of an emergency wildlife disease response

System	Outputs – written	Outcome	Responsibility
Accounts management system	• Task request for each task where money has been spent • Accounts report • Accounts payment processing system • Purchase orders • Invoices • Credit card statements • Petty cash transactions records	• Budget reports • Accounts received and paid on time	LCC accounts payable/receivable Logistics
Accommodation register	• Accommodation list, including providers • Resource tracking system • Catering – may need similar outputs for catering	• Personnel are accommodated • Costs for accommodation are known	Accommodation Officer Logistics
Asset/resource/ stores management	• Asset list, including providers • Audit report • Resource tracking system • Store inventory • Resource-specific system (eg keys)	• Assets are tracked and managed • Inventory control and management • Asset disposal • Best use of resources • Expenditure on assets	Logistics stores/assets Logistics and/or Operations
Audit and review	• Policy • Procedure • Timetable for audit and review • Reports – monitoring and review • Checklists • Corrective action register	• Compliance with policies and procedures • Good SSA • WHS • Budget met	Incident Management Team allocated roles
Case management system	• All files for each case • Case file (electronic and paper) • Database to collate information on cases (not Excel spreadsheet) • Reports (up 18 standard reports)	• Response knows what it should know • SSA • Decision making is informed and timely • Stakeholder engagement is timely and relevant • Legal risk management	Case Files Officer Operations Information Officer Planning

System	Outputs – written	Outcome	Responsibility
Client management system, including call centre	• All files for each contact with each case • Case files (electronic and paper) • Database to collate information on cases (not Excel spreadsheet) • Reports • Q and A (typical questions and answers) for operators	• Response knows what it should know • SSA • Decision making is informed and timely • Stakeholder engagement is timely and relevant • Legal risk management	Call centre supervisor Community Engagement and Media Liaison
Complaints register	• List showing actions for all complaints and correspondence with external stakeholders • Case file for each stakeholder who sends and receives correspondence • Reports to management	• Client management • Responses knows what it should know • Consistency and reproducibility • Reduction in number of complaints	Management support Records Officer Communications
Communications Plan phone list	• Collated contact list (voice, email, text, radio) for personnel • Physical location or vehicle call sign of each person shown in Communications Plan/contact list	• All personnel can be easily reached • Good SSA • WHS • Stakeholder management	Planning Officer Planning
Communications – media and public information, community engagement	• Information and education documents (eg FAQs) • Policies • Procedures • Reports from channels – web, email, mobile, landline, social media • Communications Plan • Risk assessments • Analysis outputs • Media releases, etc • Briefings	• Stakeholders are engaged and supportive of the response	Communications Manager Community Engagement and Media Liaison

System	Outputs – written	Outcome	Responsibility
Field team, dispatch, return and information processing (surveillance, destruction, disposal, valuation, vaccination, vertebrate pests)	• Relevant plans – surveillance, tracing, vaccination, movement control, IAP • Tasking, SMEACS, briefing, AAR • Resource tracking • Field information collection records, including digital images and voice recordings • Checklists • Risk assessments • Procedures • Resource/stores register • Communications Plan (radio, phones)	• WHS of field personnel • Response knows what it should know • Stakeholder management	Operations sections (eg surveillance)
Financial management system	• Finance reports • Quarterly claim submissions	• Budget monitored and met • State or territory receives quarterly payments • Meet cost-sharing arrangements	SCC Finance Manager Finance
GIS and mapping systems	• Maps – strategic, tactical, task • Analysis outputs to inform decision making • Reports	• Good SSA • Decision making • Stakeholder management • Response knows what it should know	GIS/Mapping/ Information Manager Planning
Hazardous address register	• List showing all cases that are assessed as presenting a risk • Procedures supporting management of hazardous cases • Definition of hazardous address • Risk assessment	• Field and telephone personnel are not subject to risks associated with hazardous cases • WHS • Stakeholder management • Legal risk management	Operations Planning – policy and procedures

System	Outputs – written	Outcome	Responsibility
Human resources records	• Policy • Procedures • Individual case file for each person, including medical information • Collated records for all personnel • See 'Induction'	• Responses knows what it should know for each person • Right person in right role at right time • Information for emergency contacts readily available, including next of kin • Compliance with policy • Legal risk management	Staff Officer Human Resources Officer Logistics
Information management	• As for 'Records management'		Management support Every officer
Induction	• Site entry advice for each person • Induction presentation and package – response and role • Information on each person collected and collated in personnel system • ID issued for each person • Authority in place for each person in a role	• Incoming and returning personnel have response-relevant SSA • Smooth integration of personnel into response/role • Compliance with legal requirements	Induction Officer Logistics
Legal information management	• Legal advice • Legal orders and gazette notices • Legal advice register • Legal advice should be on the relevant file/record (eg case file)	• Compliance with legislation, policy, procedures, etc • Legal risk management	Legal Manager Planning Manager Planning
Orders instruments (eg quarantine)	• Risk assessments • Policies • Procedures • Register/database (same as case management) • Case files • Investigation reports • Reports • Audit reports	• Compliance with movement controls • Disease less likely to spread • Movements that can occur do occur • Stakeholder management • Legal risk management	Movement and Compliance Coordinator Operations

System	Outputs – written	Outcome	Responsibility
Permit management system	• Risk assessments • Policies • Procedures • Register/database (same as case management) • Case files • Investigation reports • Reports • Audit reports	• Compliance with movement controls • Disease less likely to spread • Movements that can occur do occur • Stakeholder management • Legal risk management	Movement and Compliance Coordinator Operations
Policies and procedures register	• Policies • Procedures • Specific documents (eg case definition) • Reference documents are AUSVETPLAN	• Consistency and reproducibility • Management of tasks	Planning Manager Planning
Records management	• All records – electronic and paper – are stored and retrievable during and after response • Records to include event logs, message forms, diaries and emails, texts, social media • Outputs may be embedded in other systems (eg accounts, PPE register, case management) • Reports • Digital images labelled and allocated to relevant file (not photos)	• Informed decision making • Handover/transition from person to person and phase to phase • Response knows what it should know • Legal risk management	Management support Every officer
Resource planning	• Resource Plan • Resource appreciation • Resource risk assessment • Resource management system (see 'Asset/resource/stores management' and 'Hazardous address register')	• Right resource in right place and right time • Resource needs match operational needs • Minimum decisive force • Budget met	Resource Planning Officer Planning Manager Planning
Resource/ contractor/service tracking	• Resource tracking register showing status of each resource • Files for each resource/service/contractor	• Compliance with Resource Plan • Resources managed • Resource costs managed	Operations – resource tracking Logistics – resource acquisition

System	Outputs – written	Outcome	Responsibility
Rosters	• Roster for each function/section • Supporting information for development of roster • Policy • Procedures	• Roles are filled to meet operational needs • Compliance with policy and procedure • Personnel fit for service (fatigue management) • Budget managed – minimum overtime	Functional area manager Roster clerks in each functional area (incident levels 2+)
Sitreps information collection and collation	• AAR of records • Section sitreps • Sitrep • Reports/analyses/graphics • Visual displays – virtual and printed	• Good SSA • Decision making • Stakeholder management • Planning based on reliable validated information	Situation Officer Planning
Staff/personnel/ human resources	• Personnel register • Personal file for each staff member	• Management of personnel • Right person in right role at right time • WHS outcomes (eg notification of next of kin, allergies)	Human Resources Officer/Staff Officer Logistics
Surveillance information system	• See 'Case management system', 'Field team, dispatch, return and information processing', and Tracing information system'		Surveillance Coordinator Operations
Task/resource specific (eg aircraft tasking)	• Task register • Task instruction for each task • Approval(s) for each task • Task tracking records	• Response does what it says it is doing or will do • Good SSA • Budget met	Resource tracking Field coordinators (Operations and Logistics)
Tracing information system	See 'Case management system'		Tracing Coordinator Operations
Travel register	• Travel list, including providers • List of travellers and travel arrangements for each	• Personnel travel on time • Costs for travel	Travel Officer Logistics

System	Outputs – written	Outcome	Responsibility
Vehicle register	• Vehicle list, including providers • Audit report • Resource tracking system • Vehicle logs	• Vehicle are tracked • Vehicle returns • Best use of resources • Expenditure on vehicles • Allocate infringement notices to driver	Transport Officer Logistics

AAR = after action review; IAP = Incident Action Plan; LCC = Local Control Centre; PPE = personal protective equipment; SCC = State Coordination Centre; SMEACS = Situation, Mission, Execution, Administration, Command and control, Safety systems; SSA = shared situation awareness; WHS = work health and safety

Glossary

Agriculture Senior Officials Committee (AGSOC)	All department heads or chief executive officers of Australian state and territory agencies responsible for agriculture or primary industries.
Animal Health Committee (AHC)	A committee whose members are the Australian and state and territory chief veterinary officers, the Director of the CSIRO Australian Animal Health Laboratory, and the Director of Environmental Biosecurity in the Australian Government Department of the Environment. The committee provides advice to the National Biosecurity Committee on animal health matters, focusing on technical issues and regulatory policy (formerly called the Veterinary Committee). *See also* National Biosecurity Committee
Appreciation	A systematic approach to selection of options. It is a logical process of deduction, the aim of which is to determine, from information (confirmed or assumed), the best or better course of action or option to take in a given context.
Australian Chief Veterinary Officer	The nominated senior veterinarian in the Australian Government Department of Agriculture and Water Resources who manages international animal health commitments and the Australian Government's response to an animal disease outbreak. *See also* Chief veterinary officer.
AUSVETPLAN	Australian Veterinary Emergency Plan. A series of technical response plans that describe the proposed Australian approach to an emergency animal disease incident. The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency-management plans.
AUSVETPLAN Technical Review Group	A group of technical experts representing the Australian Government, and each state and territory agriculture department, and CSIRO. The group is chaired by Animal Health Australia and reviews drafts of AUSVETPLAN manuals prepared by consultant writers or writing groups, resolves technical issues and sets priorities for AUSVETPLAN work.
Chief veterinary officer (CVO)	The senior veterinarian of the animal health authority in each jurisdiction (national, state or territory) who has responsibility for animal disease control in that jurisdiction. *See also* Australian Chief Veterinary Officer.
Control area (CA)	A legally declared area where the disease controls, including surveillance and movement controls, applied are of lesser intensity than those in a restricted area (the limits of a control area and the conditions applying to it can be varied during an incident according to need).
Cost–benefit analysis	An analysis whose objectives are set out in, and carried out in accordance with, Item 5.1 of the National Environmental Biosecurity Response Agreement.
Cost sharing	The proportional funding of a national biosecurity incident response by some or all of the parties, determined in accordance with Item 2 of the National Environmental Biosecurity Response Agreement.
Dangerous contact premises (DCP)	A premises, apart from an abattoir, knackery or milk processing plant (or other such facility) that, after investigation and based on a risk assessment, is considered to contain a susceptible animal(s) not showing clinical signs, but considered highly likely to contain an infected animal(s) and/or contaminated animal products, wastes or things that present an unacceptable risk to the response if the risk is not addressed, and that therefore requires action to address the risk.

Declared area	A defined tract of land that is subjected to disease control restrictions under emergency animal disease legislation. There are two types of declared areas: restricted area and control area.
Decontamination	Includes all stages of cleaning and disinfection.
Destroy (animals)	To kill animals humanely.
Disease agent	A general term for a transmissible organism or other factor that causes an infectious disease.
Disease Watch Hotline	24-hour freecall service for reporting suspected incidences of exotic diseases – 1800 675 888
Disinfectant	A chemical used to destroy disease agents outside a living animal.
Disinfection	The application, after thorough cleansing, of procedures intended to destroy the infectious or parasitic agents of animal diseases, including zoonoses; applies to premises, vehicles and different objects that may have been directly or indirectly contaminated.
Disposal	Sanitary removal of animal carcasses, animal products, materials and wastes by burial, burning or some other process so as to prevent the spread of disease.
Eligible costs	The costs incurred when implementing a national biosecurity incident response that are over and above normal commitments and eligible for cost sharing, set out in Item 3 of the National Environmental Biosecurity Response Agreement.
Emergency	An emergency due to an actual or imminent occurrence (such as fire, flood, storm, earthquake, explosion, terrorist act, accident, epidemic or warlike action) that: (a) endangers, or threatens to endanger, the safety or health of persons or animals, or (b) destroys or damages, or threatens to destroy or damage, built, social, economic and natural environments, and (c) requires a significant and coordinated response.
Emergency animal disease (EAD)	A disease that is (a) exotic to Australia or (b) a variant of an endemic disease or (c) a serious infectious disease of unknown or uncertain cause or (d) a severe outbreak of a known endemic disease, and that is considered to be of national significance with serious social or trade implications. *See also* Endemic animal disease, Exotic animal disease
Emergency Animal Disease Response Agreement (EADRA)	Agreement between the Australian and state/territory governments and livestock industries on the management of emergency animal disease responses. Provisions include participatory decision making, risk management, cost sharing, the use of appropriately trained personnel and existing standards such as AUSVETPLAN.
Emergency response	The actions taken in anticipation of, during and immediately after an outbreak to ensure that its impacts are minimised. May include actions constituting an initial response to an outbreak and actions that form part of a national biosecurity incident response.
Emergency wildlife disease (EWD)	A disease that is (a) exotic to Australia or (b) a variant of an endemic disease or (c) a serious infectious disease of unknown or uncertain cause or (d) a severe outbreak of a known endemic disease, and that is considered to be of national significance with serious social amenity, or economic or environmental implications.

Endemic animal disease	A disease affecting animals (which may include humans) that is known to occur in Australia. *See also* Emergency animal disease, Exotic animal disease.
Enterprise	*See* Risk enterprise
Environment	Has the same meaning as in s. 528 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth).
Epidemiological investigation	An investigation to identify and qualify the risk factors associated with the disease. *See also* Investigation
Eradication	Elimination of a disease from an area. Eradication is indicated by the disease no longer being detectable (*see* Proof of freedom).
Established disease	A disease that, for the foreseeable future, is perpetuated within any area and that is deemed not feasible (either technically or as a result of a cost–benefit analysis) to eradicate.
Exotic animal disease	A disease affecting animals (which may include humans) that does not normally occur in Australia. *See also* Emergency animal disease, Endemic animal disease.
Exotic fauna/feral animals	*See* Wild animals
Fomites	Inanimate objects (eg boots, clothing, equipment, instruments, vehicles, crates, packaging) that can carry an infectious disease agent and may spread the disease through mechanical transmission.
Forward command post (FCP)	A field operations centre, subsidiary to a Local Control Centre.
Human infrastructure	The human-made surroundings, including buildings, roads, fixtures, parks and other transport corridors, as well as the housing and residential areas, commercial centres, pipelines and utilities, that can influence the natural environment.
Impact	The significant negative consequences caused by a disease on: • the environment or an ecosystem, including terrestrial, inland waters and marine environments, or • social amenity, including negative impacts on human infrastructure or human health, including from zoonoses, or • the economy, including negative impacts on human, animal or plant life, or • health and relevant abiotic aspects of primary production and/or business.
Incident	An outbreak of a disease.
In-contact animals	Animals that have had close contact with infected animals, such as noninfected animals in the same group as infected animals.
Incubation period	The period that elapses between the introduction of a pathogen into an animal and the first clinical signs of the disease.
Infected premises (IP)	A defined area (which may be all or part of a property) on which animals meeting the case definition are or were present, or the causative agent of the emergency animal disease is present, or there is a reasonable suspicion that either is present, and that the relevant chief veterinary officer or their delegate has declared to be an infected premises.
Investigation	An investigation of the diagnosis, pathology and epidemiology of the disease. *See also* Epidemiological investigation.

Local Control Centre (LCC)	An emergency operations centre responsible for the command and control of field operations in a defined area.
Monitoring	Routine collection of data for assessing the health status of a population or the level of contamination of a site for remediation purposes. *See also* Surveillance
Movement control	Restrictions placed on the movement of animals, people and other things to prevent the spread of disease.
National Biosecurity Committee (NBC)	The committee established independently of the National Environmental Biosecurity Response Agreement (NEBRA) that is responsible for biosecurity matters, and tasked with managing a national, strategic approach to emerging and ongoing biosecurity policy issues as set out in the NEBRA. This also means any successor bodies that undertake these roles.
National Biosecurity Management Consultative Committee (NMBCC)	A technical committee that will advise the National Biosecurity Management Group in relation to its biosecurity decision-making responsibilities and will have a role in coordinating national biosecurity incident responses between the parties.
National Biosecurity Management Group (NBMG)	The peak, national biosecurity decision-making forum through which parties would seek decisions in the event of an outbreak of a disease. Particular decisions to be made by the NBMG include whether the outbreak is of national significance, whether a national biosecurity incident response is required, approving of the National Biosecurity Incident Response Plan, and cost sharing of eligible costs of implementing a National Biosecurity Incident Response Plan.
National biosecurity incident response	In relation to a disease outbreak, an emergency response undertaken in accordance with, and outlined in, a National Biosecurity Incident Response Plan.
National Biosecurity Incident Response Plan (NRP)	Plan outlining an emergency response to a disease outbreak that is prepared and approved in accordance with the National Environmental Biosecurity Response Agreement and may be subject to cost-sharing arrangements.
National Coordination Centre (NCC)	Centre responsible for the coordination of Australian Government, national and international communications during a disease emergency (part of the National Biosecurity Communications and Extension Network).
Native wildlife	*See* Wild animals
Normal commitments	The resource costs of a party that exist for, or are required to carry out, its normal biosecurity commitments (including technical and operational requirements). These costs are considered as a baseline above which other costs that are required to respond to an outbreak of a disease may be eligible for cost sharing. Guidelines for the interpretation of what constitutes normal commitments will be determined by unanimous decision of the ministers with responsibility for each of the parties to the agreement.
Operational procedures	Detailed instructions for carrying out specific disease control activities, such as disposal, destruction, decontamination and valuation.

Outbreak	In relation to diseases, a recently detected outbreak of: • a known disease, or • a distinguishable variant of a disease that is established, but not a new incidence of an established disease, or • a disease of unknown or uncertain origin, or • a disease that is a potential threat to an area but is not yet present or widely distributed, or being officially controlled, but is in such a fulminant form that an emergency response is required to ensure that there is not a large-scale epidemic of regional or national significance, or serious loss of market access.
Owner	Person responsible for a premise (includes an agent of the owner, such as a manager or other controlling officer).
Pre-existing cost-sharing arrangement	In relation to an emergency response to a disease: • the Emergency Animal Disease Response Agreement, or • national arrangements in the health sector.
Premises	A tract of land including its buildings, or a separate farm or facility that is maintained by a single set of services and personnel.
Proof of freedom	Reaching a point following an outbreak and post-outbreak surveillance when freedom from the disease can be claimed with a reasonable level of statistical confidence.
Public benefit	The benefit received by the community from a national biosecurity incident response, regardless of whether the benefit is economic, non-economic, environmental or intangible.
Quarantine	Legal restrictions imposed on a place or a tract of land by the serving of a notice limiting access or egress of specified animals, persons or things.
Recovery	In relation to diseases, the restoration of physical, environmental and economic elements, as well as psychosocial wellbeing, following an emergency response.
Restricted area (RA)	A relatively small legally declared area around infected premises and dangerous contact premises that is subject to disease controls, including intense surveillance and movement controls.
Risk assessment	The evaluation of the likelihood and the impacts of entry, establishment or spread of a disease, as set out in the National Environmental Biosecurity Response Agreement.
Risk enterprise	A defined livestock or related enterprise that is potentially a major source of infection for many other premises. Includes intensive piggeries, feedlots, abattoirs, knackeries, saleyards, calf scales, milk factories, tanneries, skin sheds, game meat establishments, cold stores, artificial insemination centres, veterinary laboratories and hospitals, road and rail freight depots, showgrounds, field days, weighbridges and garbage depots.
Standard operating procedure (SOP)	A procedure that details the warnings, resources, and actions or tasks necessary to undertake the procedure by a person with the relevant training and experience.
Sensitivity	The proportion of truly positive units that are correctly identified as positive by a test.
Sentinel animal	Animal of known health status that is monitored to detect the presence of a specific disease agent.

Social amenity	Any tangible or intangible resources developed or provided by humans or nature, such as dwellings and parks, or views and outlooks.
Stamping out	The strategy of eliminating infection from premises through the destruction of animals in accordance with the particular AUSVETPLAN manual, and in a manner that permits appropriate disposal of carcasses and decontamination of the site.
State Coordination Centre (SCC)	The emergency operations centre that directs the disease control operations to be undertaken in a state or territory.
Surveillance	A systematic program of investigation designed to establish the presence, extent or absence of a disease, or of infection or contamination with the causative organism. It includes the examination of animals for clinical signs, antibodies or the causative organism.
Susceptible animals	Animals that can be infected with a particular disease.
Suspect animal	An animal that may have been exposed to an emergency disease such that its quarantine and intensive surveillance, but not pre-emptive slaughter, is warranted, or an animal not known to have been exposed to a disease agent but showing clinical signs requiring differential diagnosis.
Suspect premises (SP)	Temporary classification of a premises that contains a susceptible animal(s) not known to have been exposed to the disease agent but showing clinical signs similar to the case definition, and that therefore requires investigation(s).
Technical feasibility analysis or technically feasible	An analysis undertaken in accordance with Item 4 of the National Environmental Biosecurity Response Agreement in relation to the feasibility of a national biosecurity incident response on the basis of conclusions reached by using scientific information to evaluate the proposed response.
Tracing	The process of locating animals, people or other items that may be implicated in the spread of disease, so that appropriate action can be taken.
Vaccination	Inoculation of individuals with a vaccine to provide active immunity.
Vaccine	A substance used to stimulate immunity against one or several disease-causing agents to provide protection or to reduce the effects of the disease. A vaccine is prepared from the causative agent of a disease, its products or a synthetic substitute, which is treated to act as an antigen without inducing the disease.
Vector	A living organism (frequently an arthropod) that transmits an infectious agent from one host to another. A biological vector is one in which the infectious agent must develop or multiply before becoming infective to a recipient host. A mechanical vector is one that transmits an infectious agent from one host to another but is not essential to the life cycle of the agent.
Wild animals – native wildlife	Animals that are indigenous to Australia and may be susceptible to emergency animal diseases (eg bats, dingoes, marsupials).
– feral animals	Animals of domestic species that are not confined or under control (eg cats, horses, pigs).
– exotic fauna	Nondomestic animal species that are not indigenous to Australia (eg foxes).

Abbreviations

AAHL	Australian Animal Health Laboratory
AGSOC	Agriculture Senior Officials Committee
AHC	Animal Health Committee
AUSVETPLAN	Australian Veterinary Emergency Plan
BIMS	Biosecurity Incident Management System
CA	control area
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CVO	chief veterinary officer
EAD	emergency animal disease
EADRA	Emergency Animal Disease Response Agreement
EWD	emergency wildlife disease
IAP	Incident Action Plan (produced at LCC level)
ICS	Incident Control System
LCC	Local Control Centre
NBMCC	National Biosecurity Management Consultative Committee
NBMG	National Biosecurity Management Group
NEBRA	National Environmental Biosecurity Response Agreement
NRP	National Biosecurity Incident Response Plan
OIE	World Organisation for Animal Health
RA	restricted area
RSPCA	Royal Society for the Prevention of Cruelty to Animals
SCC	State Coordination Centre
SOP	standard operating procedure
WHA	Wildlife Health Australia
WHS	work health and safety

Useful sources of information

Link to useful tools

www.agriculture.gov.au/biosecurity/partnerships/nbc/nbepeg

Resources found at this link include:

- *Biosecurity emergency management – glossary*
- *Biosecurity emergency management – mapping symbology*
- *Biosecurity emergency management – Biosecurity Incident Management System*
- *Biosecurity emergency management – response planning guide.*

Websites

Information on Australia's wildlife health system can be found on the Wildlife Health Australia website (www.wildlifehealthaustralia.com.au), which also contains up-to-date lists of resources available for those interested in wildlife health in Australia.

AUSVETPLAN documents, and the Emergency Animal Disease Response Agreement, are available at www.animalhealthaustralia.com.au.

Information on management of animal health and animal health emergencies in Australia can be found in the Animal Health Australia annual report, at https://www.animalhealthaustralia.com.au/our-publications/corporate-publications/annual-reports.

Animal Health Australia Emergency Animal Disease Foundation online training Module (a generic introduction to EAD training) is available at https://www.animalhealthaustralia.com.au/emergency-animal-disease-training-program.

The *Australian code for the care and use of animals for scientific purposes* is available at www.nhmrc.gov.au.

Information on biodiversity data, including photos, descriptions, maps and observations of Australian species, is available via the Atlas of Living Australia (www.ala.org.au).

Information about the species and ecological communities listed under the *Environment Protection and Biodiversity Conservation Act 1999* is available on the Australian Government Department of Environment and Energy website (www.environment.gov.au).

Links to Australian Government websites relevant to free-ranging animals are listed on the Wildlife Health Australia website.

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