

Surveillance in biosecurity emergencies

NSW Department of Primary Industries (DPI) in cooperation with Local Land Services (LLS) and supporting organisations coordinate surveillance in biosecurity emergency responses. Surveillance aims to:

- determine the extent of infection/infestation
- detect new infections/infestations
- demonstrate freedom from disease/pest

Surveillance determines the presence or absence of specific biosecurity matter by the collection of samples (of biosecurity matter) and information (e.g. photos, observations, reports) by:

- ground field teams
- aerial surveillance crews
- operations and planning personnel at the Local Control Centre (LCC) and State Coordination Centre (SCC)
 - using phone and email to request and/or receive information from the community, industry and other agencies
 - on line information collection
 - by monitoring media, including social media, and community meetings

Planning considerations

- Surveillance priorities will depend on the surveillance strategy and subsequent surveillance and tracing (SAT) plan which is impacted by:
 - safety of personnel in the field
 - the biology of the biosecurity matter and the way it spreads
 - proximity to high risk sites and hosts
 - location of premises e.g. restricted emergency area/zone, outside area
 - movements from known infected/infested premises
 - risks by fomites and vectors e.g. insects, feral animals, people, vehicles
 - geography and environmental factors e.g. wind, water
 - industry requirements
 - political requirements
- Operational considerations for safe tasking of surveillance teams includes:
 - adequate and appropriate resources e.g. personnel possessing specialised skills with the target species, skill set of team members
 - availability of communications for personnel safety and completion of online data
 - contamination intervals for personnel (e.g. dirty to clean definition)
 - visit frequencies (according to SAT plan)
 - physiological and psychological impact from activities being undertaken e.g. travel times
 - changes to the SAT plan e.g. increased area of operation
 - environmental factors
 - alternate surveillance using community and industry members
 - application of learnings from activities and debriefs

- Surveillance data is usually combined with other data and analysed for use by other functions e.g. Control, Planning, Logistics and Public Information.
- Surveillance activities may be combined with other tasks. This will impact on planning, resourcing and conduct of the surveillance task. Other tasks may include:
 - [tracing](#) – collection and/or validation of detailed information of biosecurity matter movements
 - [pre-operations site inspection](#) to support destruction and disposal activities
 - issuing biosecurity directions including movement restrictions, decontamination directions

Roles and responsibilities

The roles required and structure will depend on the size and complexity of the response. Refer to the Operations section of the [DPI emergency response roles](#).

Ground field surveillance

Field surveillance teams are required to:

- a) receive a briefing on what to look for, what to sample, what information to collect and relevant safety issues (see [safety](#) below) for allocated site/s or area
- b) arrange access with the owner/manager (where possible/relevant)
- c) review safety assessment
- d) collect resources for visits and tasks to be conducted (see [resources](#) below)
- e) travel to site and meet owner/manager (where available)
- f) [decontaminate onto site](#) abiding by specific biosecurity plan or general biosecurity duty
- g) conduct an on-site risk assessment
- h) conduct task
 - collect or validate information through observation and discussion with land owner/manager including epidemiological information
 - collect and handle samples
 - complete sample submission information including PIC, owner details, key list
 - if unexpected signs or observations, contact supervisor
 - record any further actions required or issues
- i) record (to be completed on or off site)
 - complete an event log (includes any permission given or refused by owner/manager and on-site risk assessment)
 - task data – complete [laboratory submission information](#), [surveillance and tracing forms](#) (under Forms – Surveillance, WHS and risk)
 - photos/videos
- j) depart property following [decontamination requirements](#)
 - discuss findings and any follow up actions with owner/manager
 - handle samples to ensure bio secure transportation
- k) report to supervisor
 - conduct [debrief](#) including reporting any issues, [accidents and incidents](#)
 - [download and label photos](#)
 - submit data sheets and samples
- l) restock, return or maintain resources used during the task

Aerial surveillance

Aerial surveillance in biosecurity responses may be required and is conducted by aviation trained personnel in accordance with [NSW DPI aviation procedures and task profiles](#).

Approval of aviation tasks, prior to the tasking of aircraft and crew, requires:

- a) existing task profile [Aerial surveillance](#)
- b) completion of [Task description and risk assessment](#) and task request (in WebEOC)
- c) approval at LCC where suitable aviation assets are available
 - LCC may need to request (by task request) suitable aviation assets from the DPI SCC for deployment by NSW Rural Fire Service (NSW RFS) if not already available
- d) qualified personnel to conduct the task, usually Air Surveillance Crew

Tasking of aircraft and crew requires:

- a) [aircraft task operations plan](#) developed in conjunction with pilot, operator and other stakeholders e.g. landholders, combat agency
- b) [task briefing](#) of pilot and crew to be conducted by AASFA Operations Officer
- c) [safety briefing](#) by pilot and completion of passenger manifest
- d) completion of task according the procedure [Management of aviation operations](#) including flight operations return, observation report, debrief
- e) flight following conducted as per task profile and task operations plan

Crew are required to:

- a) receive a briefing on what to look for and relevant safety issues for the allocated property or area
- b) discuss task with owner/manager
 - Record any known aviation hazards using aviation maps or other local knowledge
- c) review safety assessment
- d) collect resources for task to be conducted (see [resources](#) below)
- e) travel to airfield, meet pilot and receive safety briefing
- f) conduct task – make observations, record data and take photos which:
 - identify locations and numbers of target/s
 - identify animal welfare issues
 - identify other features which may impact the response
- g) record
 - complete an event log (includes any permission given or refused by owner)
 - task data – complete surveillance on [field activities log](#)
 - photos/videos
 - ensure the pilot completes a Flight Operations Return for the task
- h) report to supervisor
 - conduct [debrief](#) including reporting any issues, [accidents and incidents](#)
 - [download and label photos](#)
 - submit data sheets including waypoint data/flight path data
 - submit aviation records – track logs, copy of Flight Operations Return
- i) restock, return or maintain resources used during the task

Resources

General resources (required by any field teams)

- Vehicle (preferably with vehicle tracking technology) - suitable for terrain and conditions
- First aid kit – suitable for location/conditions, may include additions (e.g. snake bite kit)
- PPE – suitable for the task and conditions, e.g. disposable overalls, respirators (e.g. P2 disposable masks), eyewear, enclosed, non-slip footwear, sun protection (hat, sunscreen), wet weather gear, insect repellent (refer to the safety risk assessment/safe work method statement)
- Data capture devices (with GPS capability) – tablets, paper/pens/clipboard, camera (preferably waterproof and GPS capable)
- Data collection forms - event log, [sample submission form](#), [surveillance and tracing forms](#)
- Communication/safety devices – suitable for the area, e.g. mobile phones, radios (on GRN), satellite phones, personal locating beacon (PLB) or tracking device/App for remote/isolated work
- Water and food
- Contact details e.g. property owners, LCC, other teams
- Information e.g. local area maps (maybe available on recording devices)

Surveillance task specific resources

- PPE for aerial operations – refer to the relevant aviation task profile
- Portable NLIS scanner
- Sample collection and handling equipment e.g. coolers, ice bricks, zip lock bags
- Surveillance work instructions and photographs/videos of the disease/pest

Safety

Safety issues must be addressed by implementing appropriate controls. Risks may include:

- [Animal handling in emergencies](#)
- [Aviation management](#) – refer to the appropriate task profile
- [Boating operations](#)
- [Dealing with aggressive stakeholders](#)
- [Driving vehicles](#)
- [Fatigue management](#)
- [Manual handling](#)
- [Property visits](#)
- [Remote and isolated work](#)
- [Working around plant and equipment](#)
- [Working on or around water](#)

Further information

NSW Department of Primary Industries – [Operations resources and publications](#)