



Pacific Invasive Species Battler Series

INVASIVE ANIMAL SUPPRESSION SUPPLEMENTARY RESOURCE

TEMPLATES AND PROMPTS



Department of
Conservation
Te Papa Atawhai



SPREP
Secretariat of the Pacific Regional
Environment Programme



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Our vision: A resilient Pacific environment sustaining our livelihoods and natural heritage in harmony with our cultures

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About this document

This document provides a structured format for developing an invasive animal suppression project. It is specifically tailored to the Invasive Animal Suppression Framework presented in the Pacific Invasive Species Battler guide: *Use a framework to plan and implement an invasive animal suppression project*. The templates and prompts here assist with filling out each section.

The first-level chapter numbers in both documents align, making cross-referencing easy. You can save each section as a separate document, although they are compiled here for comprehensiveness. After finishing a section, delete the instructional text.

An example **Operational Plan** and **Feasibility Assessment Report** are also provided, using the structured format from this resource.

Instructional text can be found throughout in boxes like this one.

1. Feasibility Assessment Report Template

Title. *Feasibility assessment for suppressing*

[name of invasive animal species], [where], [when]

Authors:

Date:

Version History:

Version	Reason for change	Date
1	Draft for review	
2	Peer reviewed final	

Table of Contents

1.1 Executive Summary

Enter the goals, targets, and scope.

- Provide a brief description of the proposed treatment area.
- Explain whether the project is technically achievable, socially acceptable, and possible to sustain long-term.
- Describe any dependencies.
- Conclude and make a recommendation.

1.2 Introduction

1.3 Value(s) for protection, project goals, and scope

Describe the value you want to protect.

Describe the problem and how the invasive animal is threatening the value you want to protect. This description might include the initial monitoring required to establish the baseline information about the problem. Include a description of the invasive animal, its ecology, distribution, impacts, and what is known about its population level at the site.

1.3.1 Project goals

If you have enough information at this early stage, in table format, describe the project goals as result targets and outcome targets in SMART (specific, measurable, achievable, relevant and timebound) format. For example:

Goal area	Result target SMART goal	Outcome target SMART goal
Native bird protection	Rat (the invasive animal) abundance is suppressed to less than five per cent tracking tunnel index (the level) within the bird's breeding area (the site) by 2027 (the timeline) and maintained to this level over the long-term.	The native bird population (the value) is increased to 20 breeding pairs (the target level) within their breeding area (the site) by 2032 (the timeline) and subsequently managed for long-term persistence.

If information gaps make it too difficult to produce SMART goals, start with more general goals and tighten them up in the development stage of the Operational Plan.

A worked example of a Feasibility Assessment Report can be found [here](#).

Insert the title of the Feasibility Assessment Report (hereafter Feasibility Report).

Insert a Table of Contents for easy navigation of your document.

The Executive Summary is a condensed overview of the full document. It comprises important elements summarised into a paragraph or two. It helps others understand the project at a glance. Insert text to briefly explain these points.

An introduction sets the scene. Briefly explain what the document is about and why you have written it. You will provide more detail later in the report.

the Battlers for Feral Cat and Feral Pig Suppression describe their respective ecology and impacts

1.3.2 Site

Describe the site location, size (in hectares) and physical features, access points and values (biodiversity, social, and cultural), land ownership and use, existing infrastructure, and other projects and issues occurring within the site.

1.3.3 Scope

Outline what is included and what is excluded from the project.

Describe these aspects and show physical features on a map, along with a scale, north arrow, and the defined boundary of the suppression area. Indicating inaccessible areas (such as gorges) is also helpful. Hand-drawn maps are acceptable. You could choose to capture it through a photograph for insertion into your document.

1.3.4 Additional benefits and potential negatives of the suppression project

Describe any other benefits from reducing levels of the target invasive animal and any potential unintended consequences. If there are knowledge gaps that require research, explain those too.

1.4 Technical achievability of suppression and monitoring

1.4.1 Initial monitoring

Identify what baseline information you need to inform the threats to the value and explain how you are going to get the baseline information (such as the tools, timing, duration, frequency, data collection, and analysis).

Research similar projects and seek advice from a PRISMSS mentor to help design your suppression and monitoring regimes.

1.4.2 Suppression design

Briefly evaluate suppression tool options in relation the size of the site, strengths, weaknesses, and risks, before describing your chosen tool(s) with rationale. Link your evaluation to the project outcome. Consider the timing of deploying the tools (including duration and frequency), layout of the tools, and how you will collect and analyse the data. Include details of tool usage into the future to sustain project goals (such as every three years) and any sequential tool use (with rationale).

1.4.3 Result monitoring

Describe what result monitoring is intended to inform the suppression results. Consider the tools, timing, layout, data collection, and analysis.

1.4.4 Outcome monitoring

Describe what outcome monitoring is intended to measure change. Provide detail on the tools, layout, time, duration, frequency, data collection, and analysis.

1.4.5 Suppression and monitoring technical achievability

Taking into account your proposed tools and project design, assess how likely you are to succeed (that is, reach the project outcome goal) and make a recommendation on whether the project is technically feasible.

1.5 Social acceptability

1.5.1 Legality

Assess whether the project is consistent with the legal or planning requirements in the given country or territory.

1.5.2 Communication plan

Consider creating a dedicated Communications Plan document to keep the communication components organised. A Communication Plan applies across the feasibility, operational, delivery, and review stages. Prompts have been included in this document to provide guidance on the timing and sequence of communication actions.

Use the tables below to sketch out a communication plan to guide consultation. Identify the permits and consents needed, institutional and political interest, and the names of those who will be consulted and why. You can build on this plan later to track discussion if the project is deemed feasible, or fill it in retrospectively if you have already begun consulting in the development of this Feasibility Assessment Report.

Community and stakeholder details

Community/ Agency/ Stakeholder/ Sponsor	Name of contact person	Contact details	Project interest <i>What is their interest in the project, and what do they want the project to achieve?</i>	Project concerns <i>What issues or concerns are present, and can those concerns be addressed?</i>

Consents/permissions

Community/ Agency/ Stakeholder/ Sponsor	Name of contact person	Contact details	Type of Approval	Approval Y/N	Comments

1.5.3 Project Information Sheet

If local communities prefer verbal communication only, there may be no need to create a Project Information Sheet. However, if you find a Project Information Sheet is useful to help you communicate the key messages, there is an example in [Appendix 1](#). You can leave copies with community members and stakeholders. Consider translating the Project Information Sheet into the local language.

1.5.4 The potential positive and negative social consequences of the suppression project

Briefly describe any positive or negative social impacts of the project.

1.6 Estimate of project costs against scale, time, and frequency

1.6.1 Project structure, capacity, and capability

Describe how you will structure the project; include the decision-makers, staff numbers, skills, and training needed.

1.6.2 Infrastructure and equipment

Briefly describe what infrastructure (such as storage and transport) and equipment is needed.

1.6.3 Logistical constraints

Describe logistics constraints that need to be addressed, such as site access or seasonal limitations.

1.6.4 Knowledge gaps and dependencies

Identify any knowledge gaps (noting you do not need solve the gaps at this stage). Describe key dependencies (for example, “the project is only feasible if we can do this...”) and actions to manage them.

1.6.5 Estimate costs and timeline

Estimate the annual costs for equipment, infrastructure, services, staff, and training for each stage (initial monitoring, suppression work, and result and outcome monitoring). Give an approximate timeframe for doing the suppression and monitoring aspects of the project long-term.

1.6.6 Decision and recommendation

If you answer 'yes' to all the questions in the below table, write a concise recommendation with rationale for investors and proceed to the planning stage.

If you answer 'no' to any of the questions, discuss options with key people to decide on the future of the project.

Use the table below to help you decide on feasibility.

Feasibility questions	Feasibility answers Y/N	Comments or recommendations on any adaptations to make it feasible
Are you clear on what you are doing and why?		
Is your project proposal legal in the country/territory where it is happening?		
Do you have effective suppression tools that you can use?		
Can you measure the changes in the outcomes from the suppression work?		
Have you identified risks to human health, non-target native species, and the environment? Are these risks acceptable or can they be avoided, minimised, or mitigated?		
Do you have the support of the community and key stakeholders despite identified risks?		
Will you be able to secure all required consents including landowner permission to access the site?		
Can you secure the necessary resources (such as people, funding, and equipment)?		
Can you keep the project going long-term to retain the gains that have been made?		

1.6.7 Independent peer review

Get an independent review on your Feasibility Assessment Report before putting the proposal to investors (PRISMSS can help find a suitable reviewer).

Independent assessment comments:

Name of assessor:	
Date of assessment:	
Comments	

1.6.8 Secure long-term funding

Secure and describe long-term funding for the project's ongoing delivery.

2 Operational Plan Template

Title: *Operational Plan to suppress*

[name of invasive animal species], [where], [when]

Authors:

Date:

Version History:

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2	Peer reviewed final	

Table of Contents

2.1 Introduction

2.2 Project goals, treatment site, and scope

Describe the value for protection, the problem, goals, scope, and treatment site.

2.2.1 The value(s) the project is aiming to protect

2.2.2 A description of the problem

2.2.3 Project goals

2.2.4 Treatment site

2.2.5 Scope

Describe what is included in the project and what is excluded from the project.

A worked example of an Operational Plan can be found [here](#).

Use the information from the feasibility stage to write an Operational Plan. The plan will cover resources, logistics, communication, and training and will prepare you for the delivery stage. The specifics on what to include are suggested below.

If you intend to have your Feasibility Report and Operational Plan in separate documents, insert a Table of Contents in each for easy navigation. If you are combining the two, a separate Table of Contents is unnecessary.

Set the scene, briefly explain what the document is about and why you have written it. Include a brief description of the findings of the Feasibility Report.

Start your Plan with a clear sense of why you are doing it, what you want out of it, and what that entails.

2.3 Project team and structure

Insert an organisational chart showing relationships between the manager, supervisor, and team members. Include descriptions of roles and responsibilities, names, and contact phone numbers. Remember to update the chart if there is staff turnover. A hand-drawn structural diagram on paper is acceptable. You could choose to capture it through a photograph for insertion into your plan.

2.4 Communication

Update the communication plan, begun in the feasibility stage, by summarising who you have talked to, the discussion outcomes, and further consultation planned.

2.5 Suppression design

- Method, tools, and timing
 - Number of devices (such as bait stations/traps/tunnels/tracking cards), and amount of prefeed and toxin if relevant
 - Spacing between the devices
 - Quantities and type of bait or lure required
- Track marking and marking of device locations
- Start and end dates (if known) of using the tools
- Maintenance regime and data collection.

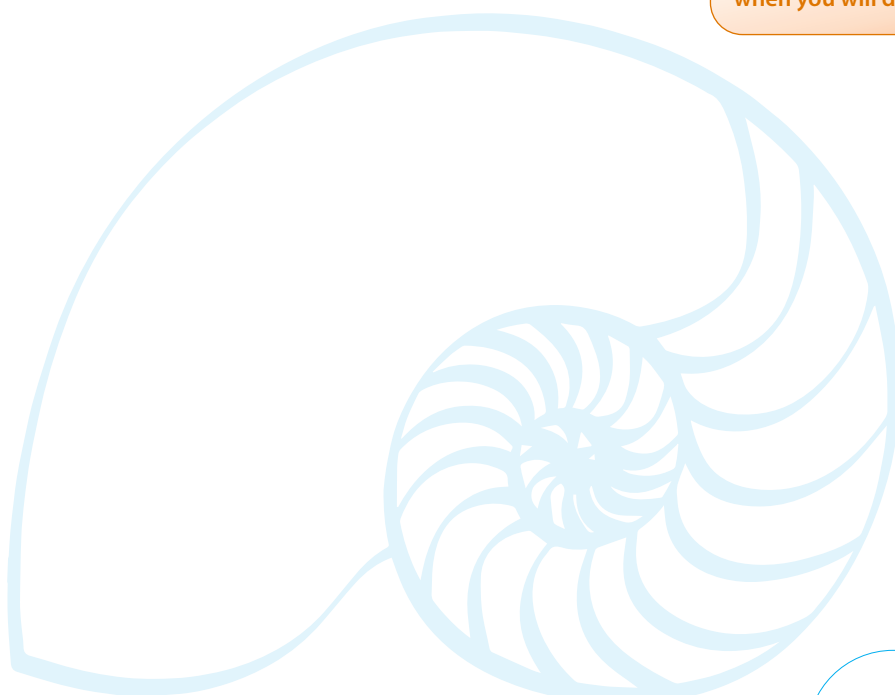
Explain how and when you will use the suppression tools. Cover the information indicated by the bullet points.

Show tool placement on the map, alongside access ways, roads, and other recognisable features.

2.6 Monitoring regime

Use the bullet points in 2.5 to guide your monitoring content.

Explain what monitoring you will be doing and how and when you will do it.



2.7 Managing risks and health and safety

2.7.1 Managing risk to the public and non-target animals

Insert a table listing risks to people and to domestic and native animals as well as how these risks will be managed. Describe any public safety notification procedures.

Remember your Project Information Sheet (example in Appendix 1), includes information on risks and how to manage them.

2.7.2 Managing the health and safety of the team

For toxin operations, ensure:

- team members have read and have copies of the pesticide label and Material Safety Data Sheet (MSDS);
- protective clothing and equipment (PPE) is provided for team members, and they use it; and
- hand-washing facilities are available—that is, soap, towels, and clean water—and that these are used at the end of each task or when taking a break or consuming food.

Use the example of a safety plan in [Appendix 2](#) to develop a health and safety plan for the field team. Every team member must read the health and safety plan prior to starting field work.

2.8 Task list, task assigning, and timeline

Create a task list, assign each task to a team member, and state the date by which it is to be completed. When assigning tasks, consider competencies, training, and briefings required. Also consider any dependencies and the lead time to complete tasks. If you are using your task list to track progress, include milestones. Remember to include end-of-suppression or monitoring tasks such as debriefing, demobilising, and tidying up. If training is required, state who/how/when this will be done prior to the work commencing. Include who will decide when to begin and stop the field work.

2.8.1 Task specifications for complex tasks

Use the format provided in [Appendix 3](#) to complete Task Specifications for those tasks that need them. Include links to the Task Specifications in the task list table.

2.8.2 Signage

Insert a picture of your chosen warning sign (in the local language) and state where you sourced the signs from.

Include a map showing your warning sign placements. Hand-drawn maps are acceptable.

2.8.3 Budget

Itemise the project costs and estimate the budget over the long-term, allowing for contingencies and any supporting research.

Establish a financial system (such as a spreadsheet) to forecast spending and track expenditure over the project's lifetime.

2.8.4 Equipment, storage, and transport

List and obtain the supplies for the field work, including vehicles (and/or boats), the type of vehicles (consider the equipment that needs to be transported), and where the vehicles will be sourced from.

For toxin baits:

- their use must follow label instructions and do not store for longer than recommended by the manufacturer;
- for anticoagulant bait follow advice in the *Battler Series Guide: Use anticoagulant rodent bait safely for safe storage and disposal*;
- ensure the following materials are always available within the storage facility: personal protective equipment, clean-up equipment for dealing with spills, the Material Safety Data sheet for the toxin being used, and a supply of water available nearby for personal hygiene.

There are important considerations within the toxin storage facility.

- No food or drink is allowed.
- Toxic bait cannot be stored in any food container that could be mistakenly identified as containing food or beverages.
- Follow the product label.
- All packages are correctly labelled. Keep the label visible.
- Clean empty containers.

2.8.5 Data recording

Set-up spreadsheet(s) or a database to capture all field data. Describe your data-recording system and provide links to each.

2.9 Operational Plan review

Have someone experienced in managing invasive animal suppression projects review your Operational Plan to assess whether it is practicable and fit-for-purpose and provide recommendations for improvement.

PRISMSS can offer advice on who could carry out this review.

Name of reviewer:	
Date of review:	
Comments	

3 Prompts for delivery of the field work

3.1 Readiness checklist

Use the checklist below to ensure that you have everything aligned to start the field work.

Template Structure	✓	Readiness checklist
Feasibility		
Project concept		The executive summary, purpose, project outcome goal(s), and scope are explained.
		The values and invasive species problem are described, target goals are in SMART format, and the treatment site, as well as the pros and cons of the project, are described.
Technical achievability		The suppression and monitoring is technically achievable and aligned to outcome goals.
Social acceptability		The project is legally compliant within the country or territory in which it is occurring.
		The positive and negative social impacts of the project are understood.
		A Communication Plan has been developed identifying key messages, people, and institutions to be consulted or notified as well as any permits and consents needed.
		Consultation has been carried out with the community and key stakeholders, a Project Information Sheet has been created and shared, you have social support, and landowner / land occupier permission has been granted for access (if required).
Sizing the cost of the project against scale, timing, and frequency		You have determined the numbers of people and skills needed to deliver the project and the skills required.
		The infrastructure needed for the project delivery is available.
		The logistics are achievable and constraints manageable.
		Planning issues have been identified.
		Dependencies are identified.
		Costs are estimated, and actions are listed against an approximate timeline. The scale, timing, and frequency of suppression needed long-term to achieve and sustain the goals are described.
		A feasibility decision is made, and recommendations are written for peer review.
		An independent assessor has reviewed the project and considers it feasible.
		Long-term funding is secured.

Template Structure	✓	Readiness checklist
Planning		
Project management		An Operational Plan to manage the project is created.
		Team structure is confirmed, and necessary training has been undertaken by all team members.
		The consultation plan is ready for roll out (early consultation may have already been done).
		The suppression regime and tools are prepared.
		The monitoring regime and tools are prepared. Initial monitoring is done (as relevant).
		The risks, mitigation, health, and safety components have been identified and managed.
		A comprehensive task list is created, and tasks are assigned to people against a timeline.
		Task specifications are developed to explain complex field tasks and identify equipment required.
		Warning signs have been acquired, and locations for installation identified and mapped.
		Equipment list is complete, and all equipment is purchased and available to use.
		Storage for equipment is organised. Vehicles and/or boats are scheduled and confirmed for field work.
		Financial budgeting system is established. The funding provider is kept informed (as relevant).
		A data management system is established to capture field suppression and monitoring data.
		An independent person has reviewed the Operational Plan and their recommendations have been considered and incorporated as relevant.



3.2 Team preparation briefing

Carry out a team briefing the day prior to starting the field work to ensure everyone is prepared. Schedule team meetings at least monthly for the duration of the field work to gather report-backs from staff and keep things on track. A comprehensive briefing should be given to any new team members before they start their field work.

For staff briefings, you will need: the Health and Safety plan, the Task Specifications, maps of the site, and for toxin operations, copies of the pesticide label and MSDS for each team member.

3.2.1 Example of a checklist for team preparation briefing

Name of person who led the briefing:	
Date:	
Attendees:	
Topic	✓
Confirm everyone understands their roles and responsibilities and who is the team leader on the day.	
Discuss the possible hazards on site and how to mitigate them (as per the health and safety plan).	
Talk about appropriate clothing and footwear to wear on the day (<i>for toxin operations, there will be protective clothing provided that must be worn</i>).	
Hand-out Task Specifications needed to describe how to do various complex tasks, and maps of the site so everyone knows what they will be doing, where, and what equipment they will need.	
For toxin operations, hand-out copies of the MSDS and pesticide label to each team member. These must be carried during the field work.	
Confirm the start time and location with team members.	
Confirm who will be travelling in which vehicle and/or boat.	
Confirm the time which all team members must report to the team leader at the end of the task.	
Discussion	
<i>Record issues/concerns raised and addressed here as well as any other discussion points.</i>	

3.3 Deliver the field work as per the Operational Plan

Once you understand your baseline data and have installed any signs needed, carried out your communication plan, worked through your readiness check, and briefed your operating team, roll out your Operational Plan.

Remember to update your Operational Plan throughout the delivery stage. Examples of records to capture include issues encountered, deviations from the planned approach, feedback from staff, incidents, and complaints.

Use the weather forecast to schedule a suitable date to start your field work.

4 Prompts to review and conclude

4.1 Team debrief

Use the table below to capture main discussion points during the debrief with your team. Questions to consider include:

- Were there any incidents, concerns, or near misses?
- Was any feedback received from the community?
- Did the field work proceed as per the plan and the briefing? If not, why not?
- What could be improved?

Name of person who led the debrief:	
Date:	
Attendees:	
Discussion	
Lessons learned:	<i>Capture these lessons to refine your plan for the next round of suppression.</i>

4.2 Do final tasks in the Operational Plan

Undertake the final tasks in the Operational Plan, such as removing signs and informing people that the suppression field work stage has ended.

4.3 Undertake post-suppression monitoring

Do your result and outcome monitoring as per your Operational Plan. Record then analyse the data to determine whether any outcome change has occurred or whether you need to adjust your suppression level targets or approach.

4.4 Create a report at the end of the suppression cycle, and share this report

Write a report at the end of the suppression cycle, consolidating information from your updated Operational Plan, financial records, and monitoring data. Share your report with the relevant people, including project sponsors. Store the report securely for future access and provide it to new staff or leaders as needed.

Talk to PRIMSS about the best way to share your report with others who may be planning similar projects in the Pacific region.

4.5 Revise your Communication and Operational Plans for the next round of suppression

In preparation for the next round of suppression, revise your plans with lessons learned, monitoring data, or changing circumstances.

APPENDIX 1 Project Information Sheet Example

Amend this information sheet to fit your project and provide it to community members and stakeholders as part of the consultation stage.

Protecting <insert name of the value being protected> by suppressing populations of the <insert name of the invasive animal> in <location>

The <name of control operator> plans to reduce <name of target invasive animal> numbers over <number of hectares> in <name of area>. See attached map.

Why we are suppressing <target invasive animal>

Describe the values being protected, intended project outcomes (for example, 'to protect Rarotonga flycatcher from predation by rats and cats'), and any benefits for the community.

This box is a placeholder for an image of the bait/trap. Include image title and photo credit info.

The methods we are using and why

Name of the treatment method. Description of toxic bait and prefeed if applicable. Describe the reason(s) for the use of this method(s).

Timeframe

The date you intend to start and whether the project is ongoing or has a known end date.

Important Information

Identification of risks associated with the treatment methods and what to do to avoid or mitigate these risks. Identify risks to pets and livestock, and state that veterinary advice should be sought for any suspected poisoning or trap injuries. If applying toxin, include a statement about not eating animals within the site.

Include a statement that warnings signs will be in place at the main points of entry to the site. The removal of warning signs will tell you that you can resume normal activities in the area.

For more information, please contact <job title and organisation of the person in charge, and their contact information>.

If you suspect poisoning (only include for toxin operations)

Seek medical attention from your local doctor or hospital.

In an emergency, dial <insert your local emergency number>

Map of the suppression area (Name of Area xxx)

Insert a map of the invasive animal treatment area showing the boundaries and include roads, houses, and other community features that may identify the place.

APPENDIX 2 Field Safety Plan Example

Below is a hypothetical Field Safety Plan example for maintaining rat and cat suppression on Talofa Island Reserve.

Site: Talofa Island Reserve • Field team lead: Anama Apa • Start date: 1 Sept 2023		
Work description: Travel to/from the island via boat. Check, re-bait and carry-out maintenance on cat cage traps and rat bait stations along marked tracks.		
General comments on safety plan:	● This safety plan covers all tasks associated with travel to/from an island, and the maintenance of cat cage traps and bait stations using anticoagulant bait for rat suppression. ● All field team members to be briefed using this safety plan prior to starting field work. ● Ensure a team leader is in place and identified for the field work. ● Field team members to each have a means of communication (radio, fully charged cell phone, satellite phone, etc), a map, and/or GPS, and first aid kit. ● All field team members to check in personally, or by phone, to the team leader at an arranged time at the end of the task or day. ● An emergency response will start for any team members who fail to check in by the arranged time (+ 1 hour).	
Hazard management		
Hazard title	Hazard Description	Controls
Adverse weather (rain, cold, storm)	Wind, cold, glare, rain (flooding), lightning storm. Hypothermia. Adverse weather could result in serious harm or fatality.	Controls: prepare for adverse weather. Minimum competencies: person is competent to work in a variety of weather conditions. Instructions: Prepare for adverse weather. Use weather forecasts to aid decision making. Carry appropriate clothing. Be aware of the effect that adverse weather can have on the topography.
Adverse weather (sun, heat, humidity)	Exposure to direct sunlight/UV. Can lead to heat exhaustion, heat stroke, dehydration, and hyperthermia.	Controls: Team members are educated on the effects of UV exposure, heat exhaustion, and heat stroke. Work is planned to reduce exposure where possible. Minimum competencies: person is competent to work in a variety of weather conditions. Instructions: Carry water and keep hydrated. Take regular breaks. Use weather forecasts to aid decisions. Plan work around cooler periods of the day. Share the workload and monitor each other. Wear sunscreen, a hat, and appropriate clothing.

Hazard management		
Hazard title	Hazard Description	Controls
Animal handling – dead or alive animals	Bites, scratches, and lacerations from handling dead or alive animals. Also, infectious diseases.	Controls: Ensure team members who may encounter dead or alive animals are aware of the diseases/bacteria/viruses the animal may carry and related symptoms that they may be exposed to. Minimum competencies: Team members to be familiar with animal and habitat. In-house training where required. Preferable that at least one team member has first aid training. Instructions: Have a high standard of hygiene including wearing gloves when handling animals and cleaning hands with antibacterial wipes/ lotion after handling animals.
Boat – boarding, disembarking, and manual loading/unloading	Vessel could be damaged, slips, trips and falls when getting on or off vessel. Fractures, strains, and sprains due to unstable and moving surfaces while loading, disembarking, loading stores and equipment, and overloading. Crushing of limbs between boat, wharf, or pier.	Controls: Maximum load limit to be determined. Team members to be trained in correct lifting techniques. Vessel should have sufficient handholds, stepping devices and application of non-skid material practically placed to minimise the risk of slips or falls. Minimum Competencies: Skipper licensed, competent, and approved for the specific vessel. Instructions: Skipper and/or crew to be present at the boarding and disembarkation point to manage all aspects of getting people and things on and off the boat and to assist others where required. The combination of people and gear must remain within the load limits of the vessel. If at a wharf, the vessel must be secure against the wharf, and team members must be aware of tripping hazards such as mooring lines. Be aware that the vessel is likely to surge back and forth. If landing on a shoreline, the wave size, direction, and frequency on the beach or landing area should not exceed the vessel's operating limit or the skipper's skill level. All equipment to be securely stowed. Once onshore, get out of the way of the vessel. Life jackets to be worn.

Hazard management		
Hazard title	Hazard Description	Controls
Boat – condition	Boat unsafe due to hull condition or a lack of maintenance or repair/ replacement of known significant defect or deficiency. Boat could breakdown and drift on to rocks or shore, collide with other vessels, sink. Persons aboard could be injured by unsafe equipment or drown if vessel sank.	Controls: A regular motor servicing regime must be in place, and evidence of this supplied by the operator if required. Minimum Competencies: Skipper licensed, competent, and approved for the specific vessel. Instructions: If the vessel is deemed unseaworthy/not in operational condition, do not use it until it is repaired. An emergency position-indicating radiobeacon (EPIRB) or personal locator beacon (PLB) plus a reliable means of communication must be carried on the vessel. If in doubt, do not go out. Life jackets to be worn and anything else as directed by the skipper.
Boat – launching and retrieving	Launching and retrieving vessels at either a boat ramp or other sites such as shorelines, etc. Crushed by boat between boat / trailer / jetty. Winch cable fraying / breaking. Impact from winch handle. Falling off trailer / boat /jetty or into water. Slipping on board on trailer/ jetty. Vehicle becoming stuck when launching at off-road sites. Boat grounded due to unsuitable launch site.	Controls: Trailer, vehicle, and vessel used are fit for purpose, in good order, and in full operational condition. Boat operators to be competent in selection of launching sites where boat ramps are not available. Everyone involved in launching and recovery to be experienced. Minimum Competencies: Skipper to be licensed, competent, and approved for the specific vessel. Instructions: Identify one person to oversee the launching operation. Inspect launching sites that are not boat ramps thoroughly before use. This inspection includes the gradient and structure of the bank and bed of the shore, so the vehicle and trailer do not get stuck, as well as the depth and flow of the water and potential underwater hazards such as rocks. At boat ramps, be aware of other users manoeuvring their vessels and vehicles and that boat ramps can be slippery. For trailer winches, maintain constant control of the winch handle, even when lowering the vessel and ensure the ratchet is locked in place when retrieving. Only people essential to launching / retrieving the vessel should be in the vicinity. Any deterioration / faults with the winch or winch cable/rope noticed should be followed up immediately. Ensure everyone is briefed before boarding and disembarking. Life jackets to be worn.

Hazard management		
Hazard title	Hazard Description	Controls
Boat – travel	Collision with another boat or obstacle (including running aground) could result in injuries or drowning. Persons could fall from a vessel into the water and drown. Fatigue/illness could result in increased potential for accidents because of slow decision making. Flammable goods present on vessel could ignite resulting in burns and fatality.	Controls: New skippers to be briefed on relevant local conditions including high traffic, presence of rocks or reefs, or debris that may increase the risk of collision. Plan work for regular daytime hours; avoid long hours and night work. Encourage skippers and crew to speak up if they feel their or others judgement may be impaired. Keep fire extinguishers on board and checked monthly as part of the vessel maintenance plan. Minimum competencies: Skipper is familiar with relevant local conditions that could increase the risk of collision. Skipper and crew are competent in person overboard procedures and trained in fire prevention/suppression. Instructions: Always keep a lookout for obstacles. Operate at an appropriately safe speed so that effective action to avoid a collision can be taken. If someone falls overboard, the skipper is to reduce speed immediately and manoeuvre the vessel back towards the person in the water. Try to keep the person overboard in sight. Throw them a line and pull them to the stationary boat rather than powering right up to the person. Engine to be placed in neutral before person is lifted on board. Plan sufficient rest periods into a project or long voyage. Skippers should not operate for more than 5.5 continuous hours without a 30-minute break. No smoking in or around vessels. Fuel to be carried in appropriate containers. Life jackets to be worn.
Field travel	Weather extremes. Becoming lost. Injury due to slip, trip, or fall. Negotiating steep or rough terrain. Pre-existing medical condition.	Controls: Team lead appointed and ensures that good communication structures are in place. Training for less experienced team members and pairing with a more experienced buddy. All aware of medical conditions of team members. Detailed work intentions supplied. Minimum competences: All team members to be competent in field navigation and working in the field. At least one team member is trained in first aid. Instructions: Team leader to ensure that comms are in place, emergency procedures are understood, high risk topography is identified, and local hazards are identified. Wear a highly visible (hi-vis) vest and suitable footwear such as hiking boots or, less ideally, sneakers.

Hazard management		
Hazard title	Hazard Description	Controls
Firearm use – pest control and euthanasia	The use of firearms for invasive animal control could lead to accidental shooting or ricochets, causing injury or death.	Controls: All firearms users are aware of and understand local firearms regulations and have appropriate authority to use the firearm. A secure container is used for transporting ammunition. Firearms are maintained in functioning condition. Minimum competencies: Adequate training including appropriate authority to use the firearm. Instructions: Treat every firearm as loaded. Always point firearm in a safe direction. Load a firearm only when ready to fire. Identify your target. Check your firing zone. Consider hard ground/rocks when dispatching animals at close range. When firearms are transported, ammunition is removed from the chamber or magazine and placed in a separate container. Do not leave firearms unattended or in plain view in vehicles. Wear hi-vis clothing and Class 5 or 3+ hearing protection when using the firearm.
Handtool use	Use of a variety of handtools including screwdrivers, hammer, machete, grubber, and so on. Heavy objects. Flying objects. Extended use. Sharp blades.	Controls: Tools maintained regularly, including checking for loose heads on axes, machete, grubbers, and so on. Minimum competencies: Competent in use. Instructions: Do not carry tools over the shoulder or leave tools lying around. Be aware of the location of others and work at least 3 metres apart. Plan breaks to prevent fatigue. Recommended clothing includes gloves, safety boots, overalls, leg protection, protective glasses, and hearing protection.
Insect stings	Allergic reaction, anaphylactic shock, and related problems.	Controls: Identify allergies within team members. Educate team members of signs of anaphylactic shock. Consider carrying adrenaline kits. Minimum competencies: Competent team leader and members. Competent in administering adrenaline (if carried). Instructions: Antihistamines to be carried by team members and used if necessary. Identify at risk team members at staff briefing: allergies, likely reactions, appropriate medications. Wear covered footwear.

Hazard management		
Hazard title	Hazard Description	Controls
Pesticide use	Poisoning from exposure to toxin through ingestion, inhalation, or skin absorption.	Controls: Only people assisting in the toxin operation remain in the vicinity of the work being undertaken. All team members are trained in the safe handling of toxin. Refer to the Battler Series Guide <i>Use Anticoagulant Rodent Bait Safely</i> for further controls. Minimum competencies: Training of all people handling the pesticide showing them how to fit all required protective clothing/gear and safely handle toxin. Each team member must be able to demonstrate to the team leader that they are competent to carry out the work. Instructions: Control protocols listed above must be followed. All team members have copies of the product label and MSDS (Material Safety Data Sheet) carried on them in the field. Carry a first aid kit. Wear protective clothing supplied. Carry soap and paper towels. Keep food and drink away for the toxic bait. When backpacks are used, a plastic liner is placed inside them for holding the toxic bait, and the product label is displayed on the outside of the backpack. Bags or containers used for carrying bait are clearly marked to identify the contents.
Predator control traps	Trap closing on operator. Breakage to trap causing injury.	Controls: Keep traps well maintained. Minimum competencies: Training of all people operating traps showing them how to hold and set the trap to minimise accidental triggering. Instructions: Keep body parts well clear of closing mechanism. Wash hands before eating and/or at the end of each task: for this purpose, carry soap and water and/or hand sanitizer gel. Wear gloves when handling animals.

Vehicle use	Lose control of vehicle, collision. Driving into water at speed, brake failure. Fatigue. Goods moving inside vehicle causing injury. All could lead to a crash causing injuries/fatalities.	Controls: Provide training for off-road conditions. Manage work schedules to address driver fatigue. Ensure vehicles are fit for purpose and maintained, each containing a first aid kit. Wearing seatbelts is mandatory. Minimum competencies: Hold a current, appropriate driver's license. Instructions: Drive to weather and road conditions. Secure loose gear inside the vehicle or tie down on the deck. No persons to ride on the rear deck of a ute (utility truck) at any time. Wear a seat belt.
Hazard management		
Hazard title	Hazard Description	Controls
Working alone	Injury, lack of assistance and/or treatment, lost	Controls: Decide whether person should have a buddy. Always leave intended locations/routes and estimated time of arrival with the team leader. Minimum competencies: Trained and competent in task being undertaken. Confident to work alone. Instructions: Always carry a suitable means of communication for working in remote places (such as a personal locator beacon, inReach, or satellite phone). Maintain scheduled contact times with team leader. Check weather. Carry a first aid kit.

APPENDIX 3 Task Specification Example

Here is a hypothetical Task Specification for setting bait stations in the field.

How to: establish rat bait stations in the field		
Project Name: Bula Reserve rat suppression		
Dates: 22–25 May 2024		
This task is assigned to: John Hingano		
Team members	Phone	Radio
L. Fonua	021 123 456	
M. Morrison	027 123 987	
Details of task		
To permanently establish Philproof bait stations to target rats over 210 hectares of Bula Reserve on a 50 metre by 50 metre grid.		
Included in scope		
● Cutting and laying out transect lines using permanent markers ● Establishing bait stations along transect lines ● Producing a map of the transect lines and bait station locations		
Outside Scope		
● Pre-feeding bait stations ● Laying toxic bait in stations		
Standards		
☐ Transect lines laid out on grids by compass bearing. Spacing should be established as precisely as possible using compass and hip chain. ☐ Grid network: 50 metres by 50 metres. Use hip chain, a measuring tape, or a 50 metre length of string to measure 50 metre spacing. No more than 50 metres between transect lines. No more than 50 metres between bait stations along transect lines. ☐ Cut the transect lines so that the team members will be able to easily move along them carrying bait. ☐ No vegetation or stem diameter greater than 3 centimetres, at ground level, to be cut. ☐ Mark the transect lines with the flagging tape supplied. At any point on a transect line at least 1 marker can be seen in either direction. Maximum distance between markers is 10 metres. GPS mark the transect lines. ☐ Bait stations to be established, marked with blue markers, and numbered, as shown on attached diagram. Take a GPS record of the bait station location. ☐ Attach bait stations to the dry side of trees with the opening 1 metre above the ground. ☐ Attach signage above or next to the bait station to inform people of toxin.		

Equipment	
☐ Map of suppression area ☐ Compass and GPS ☐ Hipchain & cotton ☐ Pruning saw ☐ Machete ☐ Flagging tape ☐ Blue triangle plastic track markers ☐ 75 millimetre (mm) galvanised nails ☐ Warning signs	☐ First aid kit ☐ Cellphone (fully charged) ☐ 50 millimetre (mm) galvanised fencing staples ☐ Claw hammer ☐ Builders apron or large bumbag ☐ Philproof bait stations ☐ Allflex stock tags (numbered) ☐ Permanent marker pen ☐ Staple gun
Attachments	
☐ Map of suppression area ☐ Safety plan ☐ Diagram for bait station attachment	
Contacts	
Project Manager	Amataga Apa 027 1234567



Join the Fight

Protect our islands from invasive species

Håfa Adåi

Aloha

Mogetin

Rahn Anim

Iokwe

Alii

Kaselehlie Len Wo

Mauri

Ekawomir Omo

Mālō te ma'uli

Halo

Tālofa nī

Halo

Tālofa

Halo

Tālofa

Ni sa Bula Fakaalofa lahi atu

Bonjour

Mālō e lelei

Kia Orana

Ia Orana
Bonjour

Hello

Kia Ora

