

# **ARK IN THE PARK**

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## **HEALTH AND SAFETY PLAN**

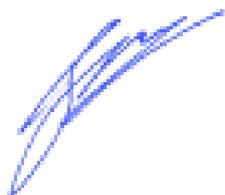
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# Revision History

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Issue 1.0	November 2015	Initial version for release	S. Park, S. Rogers, G. Wadams et al.
Issue 1.1	December 2015	Addition of A24 Goodnature traps.	Gillian Wadams
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Issue 2.1	June 2017	Addition of Steve Allan feral cat traps	Gillian Wadams

## Approved by:



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Principal Ranger – Western Regional Parks

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# 1.0 Introduction

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## 1.1 Overview

This document describes the Health and Safety plan of the Ark in the Park (AIP) - a wildlife conservation project operated in partnership between Auckland Council and the Royal Forest and Bird Protection Society. AIP is centred around the Cascades Kauri Park in the northern Waitakere ranges.

Issue 1.0 of this document was written by members of the 2012/13/14/15 Health and Safety Working Group (Karen Colgan, Sarah Cosio, Jane Ferguson, Stuart Park, Stuart Rogers and Gillian Wadams). The document was reviewed by Denis Cooper and Laurence Bechet. Sign-off was by Stephen Bell.

## 1.2 Structure

This document provides an overview of the activities performed within the AIP, the people who perform them, and the context of the work. The overall approach to Health and Safety is then described. A hazard register identifies specific hazards and associated mitigations, and a series of practical guidelines, procedures and forms are included as appendices.

Several supporting documents are maintained separately to this document due to different file formats, namely:

- Red Book Intentions Form.
- Lost Kit (Lost Person Flow Chart & prompt cards).
- Intentions help document.
- Radio Tags.
- First Aid Kit Insert.
- Hazard warning sign for Ark Store door.
- Activity cancellation notice.
- Material Safety Data Sheet folder.
- Chemical Register.

## 1.3 Scope

This document applies to all volunteers, contractors and staff who carry out activities within the AIP (or elsewhere on behalf of AIP). This does not abdicate employees from any health and safety responsibilities placed upon them by their employers. For the purpose of this document 'working' is used to mean carrying out activities, whether on a paid or unpaid basis. While all people working within the AIP are expected to comply with this plan, employees remain obliged to observe the policies of their employer. Any omission from this

document of a rule or restriction contained within an employer's health and safety plan must not be taken as permission to ignore that rule or restriction.

## **1.4 Philosophy**

This document aims to be a readable, informative and realistic resource to allow volunteers and others working within the AIP to operate as safely as practicable. Such an approach is considered likely to encourage support.

## **1.5 Version Control and Update Process**

This document shall be reviewed by the AIP Health and Safety Working Group on the following basis:

- Annually.
- Whenever a revision or extension of scope is required.
- At any other time deemed fit by Auckland Council, Forest and Bird, or a member of the Working Group.

Major revisions to this document shall be numbered 1.0, 2.0 etc. Minor revisions shall be numbered 1.1, 2.1 etc. Following any change, a copy of the updated document will be provided to Forest and Bird head office, Forest and Bird Waitakere Branch and Auckland Council. All changes are recorded in the Revision History. A copy of the current version will be maintained on the AIP website ([www.arkinthe.org.nz](http://www.arkinthe.org.nz)).

## 2.0 Nature of Activities

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Activities within the AIP are focussed primarily upon the control of predator species and invasive plants in order to provide a suitable habitat for the recovery and re-introduction of native wildlife. In addition, various monitoring and research activities are performed by volunteers, council rangers, contractors and educational institutions.

Activities are outlined below.

### 2.1 Predator Control

All predator control is achieved on foot, mostly through the use of traps and poison. A series of paths, known as access lines, bait lines and trap lines, have been established across the entire controlled area. Public tracks maintained by the Auckland Council are also used and some trap lines follow these public tracks. Dedicated bait lines and trap lines are used solely for accessing regularly-spaced bait stations and kill traps. Poison is placed within the bait stations several times a year, and traps are kept baited and set continuously. Monitoring of rat and mouse populations is performed periodically in order to guide poison baiting regimes.

### 2.2 Line Clearing

New access lines occasionally need to be cut through the understorey, and existing lines need to be kept clear of regrowth to facilitate safe passage. Selective, minimal clearing is performed using hand tools.

### 2.3 Weeding

Plant pests (trees, scrub and small plants) are removed by volunteers using hand tools. Herbicides are sometimes applied. The use of power tools for plant removal is restricted to rangers and contractors.

### 2.4 Tree Climbing

A group of volunteers are trained in the use of ropes to gain access to tree canopies. This access is used for research purposes. The techniques and equipment used by the Climbing Group have been defined by a recognised expert. Training, practise sessions and standardisation are employed to reduce risk.

### 2.5 Shooting

Firearms are used as necessary to control populations of certain pest animals. This activity is strictly restricted to licensed personnel, and permissions are granted only by Auckland Council. When shooting is taking place by authorised Auckland Council personnel affected areas of Cascade Kauri Park will be closed. Shooting is usually undertaken at night time outside of standard park opening hours. Shooting will not be undertaken by volunteers, contractors or staff reporting to AIP. Management of all shooting work will be by Auckland Council.

## 3.0 Nature of Personnel

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People carrying out work within the AIP include volunteers, Forest and Bird employees, contractors, council rangers and students. The majority of work is done by volunteers, at approximately 9,000 volunteer hours per year.

### 3.1 Volunteers - General

Volunteers come from many walks of life and vary widely in age, experience and physical fitness. New volunteers are asked to complete Appendix N Volunteer Agreement Form, which includes notification of any relevant medical conditions. New volunteers are assigned an experienced 'buddy' until their capabilities are known. Students must attend a briefing with the AIP Project Manager or Volunteer Coordinator before student projects are begun, to ensure both parties are aware of the hazards involved.

### 3.2 Enforcement of Policy

As volunteers by definition donate their time voluntarily, consideration must be given to the fact that AIP staff do not have the same ability to enforce protocol as employers do. In addition, it is felt that volunteering should be a pleasant experience, with camaraderie being an important aspect. As such, the approach taken to encouraging volunteers to follow the Health and Safety plan is based on education and trust.

## 4.0 Nature of Terrain

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The terrain within the AIP is varied, ranging from relatively flat, well-benched tracks to rugged bush with steep sided gullies, thick vegetation and river crossings. Some lines require ropes to climb or descend vertical drops. In addition, the environment is often very wet due to high rainfall.

## 5.0 Implementation

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### 5.1 General Approach

The goal of the Health and Safety policy is that everyone goes home safe. This plan helps to achieve this by identifying hazards, providing mitigating steps and educating workers. It is recognised that the policy needs to be pragmatic, but it is felt that a balance must be struck between unduly hindering work and countering any fatalistic "She'll be right" mentality that might arise.

### 5.2 Guidelines and Procedures

A series of written guidelines and procedures are included as appendices to this document. These aim to provide additional information on specific hazards with the intention of increasing staff and volunteer knowledge. This document is issued to all new volunteers..

### **5.3 Recording of Incidents and Near Misses**

An Incident Report Form must be completed for all incidents and near misses. The purpose of this is to identify gaps and improve the Health and Safety Plan. The reporting of near misses is as important as the reporting of incidents, as this can provide opportunities to avoid incidents in the first place.

Any incident or near miss must be brought to the attention of the Programme Manager or Volunteer Co-ordinator as soon as possible so that an Incident Report Form can be completed.

The Incident Report Form can be found at Appendix L of this document. Volunteer feedback is also welcomed via a suggestion box in the Ark Store.

As project partner organisations, Forest and Bird and Auckland Council will be notified of all incidents that occur. Additionally an annual summary of incidents will be provided to both organisations.

### **5.4 Activity Cancellation Policy**

All field activity will be cancelled if the MetService issues a severe weather warning. The Volunteer Co-ordinator will monitor MetService ([www.metservice.com](http://www.metservice.com)), as well as other weather information sites, prior to field activity and notify volunteers accordingly.

The Volunteer Coordinator is also mandated to cancel field activity at their sole discretion if they consider the weather to be unsuitable, in the absence of a MetService severe weather warning.

If an organised activity is cancelled due to severe weather, a notice shall be placed on the door of the Ark Store. This shall also advise that individuals should not carry out any independent activity for the duration of the warning.

## 6.0 Hazard Register

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The following table identifies hazards and suggests ways to reduce the risk of an incident occurring. It also outlines how to be prepared in the event of an incident. Some significant hazards require strict rules to be followed. AIP staff will liaise with Regional Parks to ensure both are aware of any new hazards.

Hazard	Mitigation
Bait poisoning	Wear gloves.  Wash and dry hands.  Bait in sealed bags.  MSDS Material Data Sheet available.  Volunteers provided with Poison Bait Safety Guidelines.
Fall or injury from tree climbing	All people participating in tree climbing at AIP are trained by the approved professional.  All climbers use standard practices.  All climbers use standard equipment.
Getting lost	Volunteer's experience and suitability assessed. Appropriate buddy assigned.  Maps and compasses provided to anyone going into the field.  Baitline descriptions up to date and accurate.  Training provided, volunteers encouraged to attend.  Take mobile phone.  Radio provided where possible.  Intentions registered.  Take gear on 'essential' list.  First aid kits provided.
Infection	Wear gloves.  Use antibacterial wipes/gel.

Hazard	Mitigation
	Wash and dry hands.
Injury from tools	<p>No use of machetes in the field.</p> <p>Wear gloves.</p> <p>Training provided.</p> <p>First aid kits provided.</p> <p>Volunteers provided with Tool Use Guidelines.</p>
Injury while in the field	<p>Wear appropriate footwear and clothing.</p> <p>First aid kits provided.</p> <p>Take mobile phone.</p> <p>Radio provided where possible.</p> <p>Description of emergency procedure is provided in first aid kit.</p> <p>Intentions registered.</p> <p>Take gear on 'essential' list.</p> <p>Volunteers experience and suitability assessed and assigned appropriate buddy.</p> <p>Volunteers provided with Volunteer Health and Safety Guidelines.</p>
Setting/checking traps	<p>Mandatory training.</p> <p>Traps regularly checked and maintained.</p>
Standing on sharp object with bare feet	Footwear worn.
Stream crossings	<p>All known stream crossings included in baitline descriptions and these are updated as more information becomes known.</p> <p>Stream crossings avoided during and after heavy rainfall.</p>
Wasp stings	<p>Field work reduced during peak wasp season.</p> <p>Fill in Wasp Activity on bait uptake card or office whiteboard.</p>

Hazard	Mitigation
	<p>People with wasp allergies carry appropriate medication.</p> <p>People with serious wasp allergies are told to stay away from the bush during peak wasp season.</p> <p>Volunteers provided with Wasp Safety Guidelines.</p> <p>First aid kit provided with antihistamine.</p>
Weather	<p>Volunteer sessions cancelled in severe weather warnings.</p> <p>Areas requiring people to cross streams are avoided during and after heavy rainfall. Volunteer Coordinators follow Activity Cancellation Policy.</p>

# 7.0 Appendix A: Volunteer Health and Safety Guidelines

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## 7.1 Intentions

Please write your intentions in the red intentions book on the bench in the Ark Store. When not leaving from the Ark Store leave your intentions with a family member or friend, let them know your activity, destination (bait line or trap line) and expected time of return. Please provide them with the relevant contact numbers (see AIP contact below) to call if you do not contact them by the agreed time. If you don't have an external contact, please let an Ark in the Park staff member know of your intentions. Follow your stated intentions as best as possible. If appropriate, changes to intentions should be forwarded to your contact by radio or mobile phone. Upon your return, ensure you complete the red book and inform the person with whom you left your intentions – failure to do so could result in the initiation of an emergency response.

## 7.2 Bush Safety

Please read the Hazard Register. There is variable mobile phone reception on the Upper Kauri, Ridge Road, Cutty Grass, Ian Wells and Long Road Tracks, otherwise most of the AIP does not have mobile phone coverage. Please carry your mobile phone with you anyway. If working alone always take a radio with you if one is available.

## 7.3 Traps

All traps present in the AIP should be treated as set. Please read the Trap Identification Guide to assist you in identifying the type of trap and to aid in judging its potential for harm. On your return home or to the Ark Office make sure you wash your hands thoroughly, especially before eating or smoking.

## 7.4 Wasps

You are likely to find wasps when interacting with traps and trap bait, and when travelling anywhere through the bush. There are many more wasps from January through to April. If you have a known wasp allergy it is imperative that you let the volunteer coordinator know and carry appropriate medication. Please read the Wasp Safety Guidelines.

## 7.5 Equipment

The table below lists the items that are considered essential for safe working in the AIP, along with other items that are strongly recommended.

Essential Gear	Recommended Gear
First Aid Kit (including antihistamine)	Radio (Also referred to as an 'RT')
Sturdy footwear with soles that grip	Sunscreen

Essential Gear	Recommended Gear
Outdoor clothing suitable for the conditions, as well as clothing suitable for a change in conditions	Insect Repellent
Raincoat	Pack liner or rubbish sack
Polypropylene or merino clothing as base layers.	Map of Waitakere Ranges Regional Park
Spare warm clothing	Map showing bait stations of entire block being visited
Activity description card i.e Bait line , trap line or seed collection line description card, or invertebrate monitoring or rat monitoring description card.	Mobile phone
Compass	Gaiters
Food	
Water	
Hat	
Map of whole AIP area	
Personal medication if required	
Gloves (especially when handling bait, clearing traps & using tools)	
Day pack	

## AIP Contacts

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The Programme Manager & Volunteer Coordinator can both be contacted at the Ark Office :  
09 810 7014

## Remember

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IF YOU FEEL YOU ARE IN DANGER OR ARE UNHAPPY WITH SAFETY WHEN CARRYING OUT ANY TASK PLEASE STOP! KEEP YOURSELF SAFE AT ALL TIMES.

IF YOU WITNESS ANOTHER VOLUNTEER PUTTING THEMSELVES OR OTHERS AT RISK FIRST TRY TO REMEDY THE SITUATION WITH THE VOLUNTEER. IF NOT RESOLVED REPORT THE PROBLEM TO THE VOLUNTEER COORDINATOR OR PROGRAMME MANAGER.

# 8.0 Appendix B: Poison Bait Safety Guidelines

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## 8.1 Poison Used

The only poison used by volunteers within the AIP is Pestoff Possum Bait which has the active ingredient brodifacoum 0.002% W/W. This product has been assessed against HSNO regulations and does not require special storage facilities.

The bait is in the form of blue/green cylindrical pellets about 2cm long which smell of cinnamon. The pellets are supplied in 10kg paper sacks and are measured into individual polythene bags before use.

Brodifacoum is an anticoagulant, which means it works by reducing the ability of the blood to clot. It is absorbed through the gastrointestinal tract and can also be absorbed through the skin. The poison is lethal to humans, pets and domestic animals when consumed in sufficient quantities. Repeated small doses can have serious detrimental effects as the poison can accumulate within the body.

A doctor or vet can administer Vitamin K<sub>1</sub> as an antidote for brodifacoum poisoning, but this takes time to work and must be done before serious symptoms appear.

A full Material Safety Data sheet is contained within the MSDS folder in the Ark Store.

Technical information and terminology used in this guideline have been obtained from the manufacturer's MSDS.

## 8.2 Symptoms of Poisoning

Nausea and vomiting may occur soon after ingestion, but in some cases the effects from exposure may be delayed for several days or may not be evident unless checked by a doctor or vet. Typical overt symptoms of poisoning include bleeding gums, increased tendency to bruising, blood in urine and faeces and excessive bleeding from minor cuts. Haemorrhagic shock, coma and death may follow in cases of severe poisoning.

## 8.3 First Aid (Human)

**Ingestion:** In the event of ingestion, do not induce vomiting. Consult a doctor and provide an estimation of the amount of product ingested. In the case of very small amounts of bait (< 10 grams, or 3 pellets) being taken, no symptoms may develop but larger amounts may affect blood clotting times. A doctor can assess this and provide Vitamin K<sub>1</sub> therapy as necessary. As symptoms of poisoning may not appear for several days, always seek medical advice where poisoning is suspected.

**Eye Contact:** Wash eyes with water.

**Skin Contact:** Wash exposed area with soap and water.

## 8.4 Method of Use

Measured polythene bags of new bait are carried into the field, where they are secured within purpose-designed bait stations. Bait which is not eaten eventually degrades (becomes mouldy, powdery or discoloured) and becomes unpalatable to pest animals. Uneaten bait is removed from bait stations during subsequent baiting rounds and is carried back to the Ark Store. Returned bait is reused if in good condition; otherwise it is collected prior to disposal.

## 8.5 Modes of Volunteer Exposure to Poison

Volunteers can come into direct contact with the poison bait in four ways:

- In the Ark Store, where new bait is stored
- In the Green Shed, where and old bait is stored.
- In the field, where new bait is carried to bait stations, bait stations are tended and old bait is retrieved.
- When measuring new bait into polythene bags.

## 8.6 Minimisation of Poisoning Risk

In order to minimise the risk of accidental poisoning, it is essential that the following rules are strictly adhered to:

- Wear rubber gloves when handling poison bait.
- Do not eat, drink or smoke while handling toxins.
- Thoroughly wash hands, forearms and face with soap and water as soon as possible after handling bait, even pre-bagged bait.
- Ensure the lid on the large container of bagged bait is always in place and that the doors to the Ark Store are always locked when not in use.
- Food intended for human consumption must not be kept within the Ark Store.
- Do not allow access to the Ark Store by children or animals.
- Wear gloves, mask and overalls when measuring bait into individual polythene bags.
- Decontaminate clothing and gloves by washing in hot soapy water.

## 8.7 Spillage

**In the field:** If bait is dropped in the bush, it should be picked up if at all practical so as to avoid contamination and accidental poisoning. Bait must not be allowed to enter any waterways.

**At the Ark Store:** Spilled baits should be scooped back into secure containers and any fine material swept up with a broom. Fine material should be bagged prior to disposal.

**When Measuring Bait into Bags:** Scoop spilled baits back into secure containers. Use a broom to collect fine material and wash down the spill area with copious water after all spilled bait has been collected. Give consideration to possible hazards arising from irrigating the spill site. Brodifacoum is not water soluble but fine bait material may pose a risk to people and pets.

## 9.0 Appendix C: Tool Use Guidelines

A range of tools are used within AIP, primarily for line clearance, weeding and trapping. All tools used by volunteers in the field are hand tools – the use of power tools in the field is restricted to rangers and contractors. The following power tools have been authorised for use by volunteers in and around the Ark office/Store:

- Hot glue gun
- Engraver
- Electric drill

Only tools listed in Table 2 below are permitted; these are provided by the AIP but volunteers may bring their own tools of the same type. Different tools may be brought to the attention of the Programme Manager for consideration and possible inclusion in this document. Table 2 describes safe use of approved tools.

### 9.1 Tools & Equipment not Covered

- Traps & trap setting tools – seek advice from Ark staff.
- Chemicals – refer to the *Chemical Safety Guidelines* and Material Safety Data Sheets.
- Climbing equipment – safe use of tree climbing equipment requires special training and is beyond the scope of this document.

### 9.2 Maintenance

Tools are maintained by the AIP. Any damage to a tool should be brought to the attention of either the Volunteer Coordinator or the Programme Manager. The Volunteer Coordinator checks each tool that has been used weekly as part of the proactive maintenance cycle. All tools are required to be signed out and in upon return.

Most tools have coloured tape attached. This tape helps to locate the tool when it is placed on the ground and must not be removed.

### 9.3 Risks & Mitigations

General risks associated with tool use are identified in Table 1 below, along with mitigations and recommendations for safe use. Table 2 covers specific risks associated with individual tool types. Work to your capabilities and maintain control of the task you have undertaken.

**Table 1: General Risks Associated with Tool Use**

Risks	Mitigation	Notes
Carrying tools to worksite: <ul style="list-style-type: none"><li>• Falling onto a tool</li><li>• Carrying a tool by its blade</li><li>• Tools protruding from backpack</li></ul>	Tools must be carried in such a way as to minimise the potential for harm, especially when moving through the bush. At a work site, tools must be left in a visible location and out of people's way.	Carry tools in the closed position where appropriate.
Distraction	Volunteers must not distract one another while working with tools.	Wait for person to complete task.

Risks	Mitigation	Notes
Incorrect use	Only use tools as intended. Do not use a tool unless you are confident in doing so correctly.	Tools may also be damaged by incorrect use.
Injury from cut material <ul style="list-style-type: none"> <li>Falling branches / sprung vines</li> <li>Trip hazard</li> <li>Protruding offcuts</li> </ul>	Consider where branches etc. will fall when cut. Ensure cut branches are clear of the path. Steady supplejack vines when cutting. Always cut supplejack vines completely back to ground level and square.	Cutting supplejack above ground level creates a dangerous spike, especially when cut at an angle.
Injury to bystanders	Ensure safe working distance between bystanders and people using tools.	

**Table 2: Specific Risks Associated with Individual Tool Types**

Tool	Description	Method of Use	Specific Risks	Mitigation
Batteries	Electrochemical cells used to store electrical energy.	Batteries used as per instructions of device they are used with. Battery chargers used as per manufacturer's instructions.	Burn or fire from short circuit across battery terminals. Acid leak (wet cell lead acid batteries). Fire and explosion from damage to naked Lithium Polymer (LiPo) battery packs. Fire, explosion or release of corrosive fluid from incorrect charging.	Cover open terminals or isolate battery from conductors, especially when carrying in packs. Always observe correct polarity when connecting or inserting batteries. No wet cell batteries to be used in the field – use Sealed Lead Acid batteries instead. No unprotected LiPo battery packs. When recharging batteries, use correct type of charger and follow manufacturer's instructions.
Cordless Drill or Screwdriver	Battery powered hand-held drill or screw driver with a keyless chuck.	Details vary between models. Assemble battery, drill and drill bit or screw bit. Select direction and torque, use trigger to control the speed of motor.	Entanglement with hair, jewellery or clothing when drill is rotating. Puncture wound, cut or bruising from loss of control, broken drill bit or sharp swarf. Eye damage from dust, swarf or broken drill bit. Lung damage or irritation from dust inhalation.	Remove loose jewellery. Tidy or remove loose clothing. Tie back long hair. Use sharp drill bits that are not damaged. Pre-drill screw holes before screwing if material is hard. Do not apply excessive force in the direction of work. Safety glasses are provided and must be worn. Clean up swarf and dust when finished.
Engraver	Mains powered reciprocating hand-held engraver	Plug in and switch on. Hold in one hand as if holding a pen. Press and hold side button to operate. Release button to stop. Engraver may need to be	Ear damage from sound output. Vibration injury is unlikely because use is infrequent and brief.	Ear protection is provided and should be worn. Limit use to short periods mixed with other tasks.

Tool	Description	Method of Use	Specific Risks	Mitigation
		moved quickly or slowly depending on hardness of material being engraved.		
Guillotine	Portable device for cutting paper along straight lines. Comprises flat base with long pivoted blade and clear plastic guard attached to one side.	Use on a flat, stable surface. Securely hold paper against guide on the board with left hand. With the right hand carefully raise the blade. Push the paper through under the guard to the desired place and slowly pull the blade down.	Cutting fingers while in use. Carrying without safety lock in place.	Use with the plastic guard in place. Ensure the safety lock below the blade is engaged when not in use. Do not attempt to cut more than a few sheets of paper at one time.
Hot glue gun	Mains powered manual advance hot glue gun.	Plug in and switch on. Wait for gun to warm enough for trigger advancement. Pull the trigger to advance the solid glue stick - this will dispense hot glue. Glue should be applied to one of the surfaces to be bonded. Place the components together and hold. A bond establishes as the glue cools.	Burns, gluing of skin, melting of surrounds (work site).	Plan your gluing work. Use a sensible amount of glue. Switch off, unplug and allow the gun to cool when finished.
Loppers	Two-handed scissor-action cutting tool used on plant material up to about 3 cm in diameter.	With a hand on each handle place open jaws (blade and anvil) around plant material. Bring the handles together to complete cut.	Carrying tool. Loss of footing when using tool. Movement of cut material (eye or body injury) upon cutting.	Keep tool closed when not in use. Only use with solid footing. Do not use on directly overhanging material. Loppers are not to be carried in hands when walking to and from work site.
Rabbit meat Knife (machete, cleaver, etc)	Single-handed, single edge blade. Used for chopping frozen rabbit meat that has been pre-cut. Used with wooden club. Not for use in the bush.	Place blade across meat and hold in place using handle, then use wooden club to drive blade through meat. Do not swing the blade down onto the meat. This method is only suitable for pieces of meat less than about 10cm across and 3cm thick. Work by yourself and cut one piece at a time.	Damage to hands. Hearing damage from noise of club on blade. Infection from carcass.	Maintain control of the blade. Only ever use with wooden club. Use ear protection. Wear gloves to protect any existing wounds. Wash hands afterwards.
Saw (bow)	Single or double-handed use push and pull saw. For use on plant material up to a diameter about equal to the distance between the blade and frame.	As for pull saw, however the saw blade cuts in each direction. Aim to use the full length of the blade. Varying the cutting angle during the cut reduces the amount of contact the blade makes with the plant material - this can make the cutting easier.	Risk of severe cuts to body parts in same plane as the saw blade. Movement of cut material (eye, body injury) upon cutting.	Sheath or otherwise house the blade when not in use. Use the saw one handed, so you can keep all body parts out of the plane of the cut. Keep hand away from blade if holding plant material being cut.

Tool	Description	Method of Use	Specific Risks	Mitigation
				Do not use on directly overhanging material.
Saw (pull)	Single handed pull saw. For use on plant material up to a diameter about equal to half the length of the blade.	Rest cutting edge of blade on top of plant material. Drag to cut, push to return. An undercut maybe required on horizontal plant material. Should saw become jammed, release weight on blade; remove blade and consider cutting from the side under tension. Seek help if unsure. Let the saw do the cutting, avoid forcing the blade into the cut while cutting.	As for bow saw.	As for bow saw.
Secateurs	Single or double-handed scissor-action cutting tool used on plant material up to about 1.5 cm in diameter.	Holding secateurs in one hand place open jaws (blade and anvil) around plant material and bring handles together to complete cut.	Carrying tool. Your other hand. Resting place of tool post-action Movement of cut material (eye, body injury) upon cutting.	Keep tool closed when not in use. Keep other hand clear of jaws when cutting. Do not use on directly overhanging material. Not to be carried in hands when walking to and from work site.
Spade	Garden spade used for cutting and moving earth.	Place the blade on the ground. Use your booted foot to press the blade into earth. Repeat this to loosen a square of earth then lift it out to form a hole. The hole can be made larger by cutting and removing more earth. Avoid removing oversized clods as they are likely to be too heavy to lift safely. Never throw a spade when working in a group.	Trip hazard when not in use. Injury to back through improper use.	Lay spade bladedown on ground when not in use. Only cut clods that are easily manageable.

# 10.0 Appendix D: Trap Identification Guide

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All traps present in the AIP should be treated as set. Do not attempt to set/unset any trap unless you have been trained and are confident to do so.

The following guidelines are to assist you in identifying the type of trap. Any injury from a trap should be recorded via an incident report form.

Traps in Use:

- DOC 200
- DOC 250
- Possum Box Trap (Timms brand or other)
- Belisle
- A24 Goodnature
- Fenn Mk6

## 10.1 DOC 200

**Description:** Wooden box 20x20x30cm with mesh ends and inner mesh baffle. Top of box forms wooden service lid which swivels open. Metal trap inside is attached to base. Pest access is through an outer hole in the mesh, then the inner mesh baffle. Bait is independent of the trap.

**Danger:** When the top lid is open and the trap is set.

**Trap is set:** If the treadle plate is not covered by the kill bar (grill-like set of bars).

**Trigger:** Is the flat rectangular treadle plate (7x10cm).

**Safe:** If the kill bar is on the treadle plate.



Figure 1: Doc 200 Trap Safe (Left) and Set (Right)

## 10.2 DOC 250

**Description :** Wooden box larger than a DOC 200 with mesh ends and inner mesh baffle. Top of box forms wooden service lid which swivels open. Metal trap inside is attached to base. Pest access is through an outer hole in the mesh, then the inner mesh baffle. Bait is

independent of the trap.

**Danger** : When the top lid is open and the trap is set.

**Trap is set** : If the treadle plate is not covered by the kill bar (grill-like set of bars).

**Trigger** : Is the flat rectangular treadle plate.

**Safe** : If the kill bar is on the treadle plate.

### 10.3 Possum Box Trap (Timms)

**Description:** Yellow, green, or red/orange plastic tall box (16x18x25cm) with open base, keyhole shaped entrance on the front face and a string loop on the back. Trap mechanism is part of the inside of the plastic box. Trap is pegged to the ground through holes in the base. Bait is attached to trigger.

**Danger:** If a set trap is accessed through the key hole or from the base.

**Trap is set:** If the string loop at the back is about 25cm long.

**Trigger:** A vertical rod hanging centrally when viewed through the keyhole.

**Safe:** When the string loop is short.



Figure 2: Possum Box Trap Safe (Left) and Set (Right)

### 10.4 Modified Victor stoat and rat trap

**Description:** A snap style rat trap, modified by the manufacturer to be capable of humanely killing stoats as well as rats. Can be mounted horizontally in a tunnel or vertically on a tree.

**Danger:** If hands are placed under the white hood

**Trap is set:** When metal kill bar is pulled back over to the opposite end of the trap to the white hood

**Trigger:** The plastic square under the hood  
**Safe:** When metal kill bar is at the same end of the trap as the hood.



Figure 3: Modified victor safe (left) and set (right)



**Figure 4: Fenn Trap safe (Left) and set (Right)**

### 10.5 Feral Cat Trap System (Chimney)

**Description:** A Belisle trap stood on edge inside a wooden box (30x30x100cm), with one mesh end (bait end) and one open end which is accessed down a chimney. Springs protrude through slots cut in flat sides of box. Bait is independent of trap.

**Danger:** When object enters chimney, when bait access lid is opened and when trap access lid is opened.

**Trap is set:** If springs are compressed (i.e. are not touching ends of flat side slots).

**Trigger:** Upside down "V" shaped prongs hanging from centre of trap. Visible from the mesh end only.

**Safe:** When the side springs are relaxed (i.e. touching the ends of flat side slots).



**Figure 5: Feral Cat Trap System Safe (Left) and Set (Right)**

### 10.6 A24 Goodnature stoat and rat trap

**Description:** A step-shaped plastic tube 14x20cm.

**Danger:** When an object brushes the leaf trigger aside, causing the piston to fire.

**Trap is set:** Whenever the CO2 canister is in place (whenever the trap is in the field).

**Trigger:** Leaf trigger – a fine metal bar only visible when

**Safe:** When CO2 canister is not in place. (when in storage).



**Figure 6: Goodnature trap**

## 10.7 Steve Allan feral cat trap

**Description:** A black metal box attached to a wooden ramp

**Danger:** When unsetting to change bait, when trap is approached prior to unsetting.

**Trap is set:** When the spring and frame is lying flat against the top of the box.

**Trigger:** The square 'U' shaped piece of metal inside the box

**Safe:** When the spring and frame are raised and the side securing rod is free.



Figure 7: Steve Allan feral cat trap safe (left) and set (right).

## 10.8 Fenn MK6 (With Safety)

**Description:** Open trap(s) placed under a tunnel. Trap is made from wire and flat steel. Bait is independent of trap. Trap is tethered to the ground, tunnel is pegged to the ground.

**Danger:** If tunnel is lifted. If safety catch is not fully engaged.

**Trap is set:** When trap appears flat. Safety catch can be applied when trap is set but should not be relied upon.

**Trigger:** Square plate (5x5cm) in the centre of the trap.

**Safe:** When trap forms a triangular shape, as viewed from the side.

# 11.0 Appendix E: Wasp Safety Guidelines

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Wasps of primary concern within AIP are the German and Common wasps which are both large with yellow stripes. Paper wasps have a painful sting but are unlikely to be encountered within AIP. You are likely to find wasps when interacting with traps and trap bait, and when travelling anywhere through the bush. Wasps can be present all year round but there are many more wasps from January through to April.

**Please carry a first aid kit with anti-histamine tablets at all times.** If you have a known wasp allergy please let the Volunteer Coordinator know and carry medication with you. You are strongly advised to stay out of the bush during peak wasp season if you have an allergy. During peak wasp season the Volunteer Coordinator may decide to postpone field activities in certain areas. Notices to this effect will be sent to volunteers.

## 11.1 Points to Consider

- Wasps tend to be more aggressive closer to the nest entrance and you are more likely to receive multiple stings, particularly if you stand on a nest.
- Individual wasps are less likely to attack when out foraging. When foraging, wasps are most likely to sting if confined e.g. trapped in clothing, knelt or sat on.
- Wasp nests can be anywhere from in the ground to the tree canopy and build up in numbers until March/April.
- Wasps like to nest in dry areas e.g. slopes, ridges, or holes in fallen trees where the nest will not get wet.
- Wasps are said to be attracted to the colours blue and purple.
- A common scenario is that the first person stands on or near the nest and disturbs the wasps which then emerge to sting the second person to arrive at the site.
- If a wasp is squashed a pheromone is released which then triggers other wasps to attack.

## 11.2 Methods of Defence

- Wear long clothing to cover up and no blue or purple colours.
- Wasp nests make a humming sound, so if you go slow in dry areas and look ahead you can often hear and then see them coming out from ground level and can thus avoid nests by circumnavigating them.
- If stung, leave the area. Try not to squash any wasps.
- All AIP first aid kits contain antihistamine pills. The antihistamine addresses the swelling and itching.
- When a nest is seen and not disturbed it should be flagged using tape to help others avoid it.

### **11.3 Reactions to Wasp Stings**

The usual reaction to a sting is pain, redness and variable swelling around the stings. This is a local reaction to the chemicals in the sting and is not an allergic reaction, even though the swelling might be considerable.

A very small percentage of people (<1%) have an acute generalised rash and swelling and need acute medical attention (adrenaline via an EpiPen). These people should not go into the bush in the wasp season (mid-late Feb to mid- late April) and should carry an EpiPen with them at all times when at AIP.

Being stung in or around the mouth is potentially life threatening as it can cause swelling which restricts the airway.

Being stung frequently can increase your likelihood of developing an acute reaction. People with other allergic conditions e.g. hayfever and asthma are not more likely to have an acute reaction.

# 12.0 Appendix F: Chemical Safety Guidelines

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Several chemical substances are used within AIP which have the potential to cause harm if used or stored incorrectly. In addition, several foodstuffs are kept within the Ark Store which are unfit for human consumption.

## 12.1 Chemical Substances

Whilst the risks posed by some substances may be clear and immediate (e.g. rat poison), other substances such as glues or cleaning agents can present a risk which is less obvious but nevertheless real.

A register of potentially hazardous substances is kept in a folder within the Ark Office, clearly marked 'Chemical Safety'. This comprises a table identifying the substance, where it is kept, its use, suitable protective equipment (if applicable) and a printed copy of the Material Safety Data Sheet (MSDS).

The Chemical Safety register must be updated with any new chemical product or substance before it can be used within the AIP. It is important to have a printed MSDS for each substance, as this must accompany anyone requiring medical attention as a result of contact with a chemical substance.

Appropriate personal protective equipment is provided, for example gloves and dust mask for bagging poison bait.

## 12.2 Baiting Foodstuffs

A variety of foods including eggs, peanut butter, apples, aniseed, cinnamon and rabbit meat are used as bait for pest control. None of these have been subject to normal hygienic practices and have a high chance of being cross-contaminated. It is therefore critical that none of the bait food is consumed by people. A sign to this effect is displayed outside the Ark Store.

# 13.0 Appendix G: AIP Radio Protocol

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The AIP radios and channels are the ones that Auckland Council Rangers use. They transmit across Auckland with the help of repeaters (channels 1-4). For non-emergency, general use we only use channel 5.

All radios work by one person talking (transmitting) at a time, to another person (identified by call sign). Any radio set to the same channel may also receive the transmission. Signal strength will be reduced by distance, and objects (bush, terrain) or overridden by a concurrent transmission (i.e. more than one radio sending a signal at once). The following radio procedure should be adopted for the best chance of successful communication. When taking a radio into the field two batteries should be taken, one from the box of used batteries and one fresh one.

1. Test that the radio works. To do this, turn the radio on and set to channel 5. Turn the volume up full. Press and release the talk button – you should hear a squelching noise. Establish communication with other radio holders before departing. Each person with a radio must check the can both hear and be heard.
2. Use **Channel 5** to talk to other volunteers (Keep radio use to a minimum in order to conserve battery and keep the channel free for others' use).
3. **Use Channels 4 - 1 in an EMERGENCY ONLY!**
4. Stand still whenever using a radio (for your safety and optimal reception).
5. To talk: press talk button down, talk, and release when finished – the other person cannot talk if you have the button pressed down. You will also need to wait for them to finish their transmission before you can talk. When you finish talking, pause and then say **“Over.”**
6. When using a Radio call yourself **“Ark Yourname”** e.g. Ark Bob.
7. Use channel 4 when making an emergency call to Arataki - their call sign is **“Parks Centre”**. Always say who you are calling twice and wait for a reply. e.g. **“Parks Centre – Parks Centre – this is Ark Bob – do you copy – over?”**
8. If no reply is heard after two calls, sign off with **“Nothing heard – Ark Bob – clear”**. Switch to Channel 3 and repeat the process (work your way through channels 3 to 1 if necessary, using the same process).
9. When repeating a series of letters use the phonetic alphabet if you know it. Speak clearly and slowly. Ensure you have all the relevant information i.e. people, location, problem.
10. To end a conversation say **“Ark Yourname – Clear”**.

### Note on Radio Batteries

The level of battery charge cannot be guaranteed. As such, when taking a radio from the Ark Store, a spare battery should also be taken if available.

Upon return, place any unused batteries back in the wooden battery holder. Used batteries should be put on a charger or in the Field Gear Return Box.

# 14.0 Appendix H: Procedures for Avoiding Spread of Kauri Dieback and Weeds

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## 14.1 Kauri Dieback Disease

Kauri Dieback is caused by a pathogen (a disease causing agent) called Phytophthora Taxon Agathis (PTA). The disease kills kauri of all ages and sizes and there is no cure. Symptoms include sap bleeding, yellowing and loss of foliage, canopy thinning, dead branches and eventually death of the tree and its ecosystem. **The disease has been found in the Waitakere Ranges and is present within the AIP area.**

PTA is a microscopic soil-borne organism which spreads relatively slowly, through root-to-root contact, through the passage of water in the soil, and through animals moving it around (including us!). Humans, pigs and vehicles can move the organism around at a far greater rate. **Human activity is a major risk for spreading the disease within the AIP, around the Waitakere Ranges, and to other areas.**

It is absolutely essential that we limit the movement of soil during our activities within the AIP area. This is important not only to protect our precious forests, but also for the continuation of the Ark in the Park itself. Auckland Council take the threat of Kauri Dieback very seriously, and as landowners have granted us permission to continue our activities on condition that we strictly obey the sanitation procedures below.

## 14.2 Weeds

The Auckland region has over 700 introduced plant species which self-propagate in the wild. Many of these are considered weeds and some can cause serious harm to our native environment. It is easy to accidentally spread seeds and plant fragments while travelling from home to the AIP. Following the sanitation procedures below will reduce the risk.

## 14.3 Sanitation Procedures

- Clean your footwear thoroughly of all soil before arriving at the AIP and again when leaving. There is a cleaning station at the Cascades ranger station.
- Remove seeds and plant fragments from your clothing and shoes.
- Always carry a spray bottle of Trigen disinfectant with you when travelling into the bush. The Trigen must be 'fresh' (less than 6 months since dilution) as otherwise it becomes ineffective. Old Trigen must be discarded and then replaced with fresh Trigen whenever a new batch is prepared. Notification of a new Trigen batch is provided by an email and a sign on the Ark Store door.
- Always use footwear cleaning stations when in the AIP area and elsewhere within the Waitakere Ranges. This will help to stop the spread of infected soil.
- Whenever you leave tracks, thoroughly scrub and spray your footwear and any other muddy areas such as gaiters and leggings. Repeat when travelling between areas of kauri.

- Remember to scrub and spray your footwear and clothing again before rejoining tracks.
- Clean and spray your footwear and soiled clothing once again after having been in the bush.
- When you get home, wash clothing with soapy water.

Note that stricter procedures may be required from time to time, or in certain areas. Briefings will be given and on these and baitline description cards will have further instructions where necessary.

# 15.0 Appendix I: Information on Human Health Hazards from Animal Diseases

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There are a number of diseases carried by pest and native animals found in the New Zealand bush, some of which pose a real threat to people carrying out activities at the Ark. Diseases carried by animals are sometimes referred to as zoonoses.

These zoonoses can be present in the animals themselves and their urine. Rat, mouse and possum urine can be present at bait stations and monitoring tunnels as well as traps. Mustelid urine can be found in traps. Therefore even indirect contact with animals could cause infection as zoonoses can be transmissible to humans via cuts, sores and abrasions on the skin, as well as mucus membranes exposed to infected animals bodies or bodily fluids. Some diseases are also transmissible via airborne dust. Trappers are more likely than other Ark volunteers to be exposed to infection

These zoonoses can also be present in water courses.

The majority of these zoonoses have variable incubation periods that can span a few days to a few weeks. You may or may not have symptoms, if you do they can vary widely but can include fever, muscle aches, jaundice, severe tiredness, vomiting, diarrhoea, swollen lymph nodes. If you have any concerns its best to see your doctor. If unwell and visiting the doctor consider mentioning to the doctor that you have been in contact with the animals or their body fluids. The risk is increased if your immune system is compromised by a medical condition (eg. Chronic bronchitis, HIV, diabetes, severe flu) and you are at the same time continuously in close contact with animals or their products (faeces, hair, feathers, etc).

It is important to realise that some animals, and people, can be carriers of disease organisms, (e.g. Salmonella) and show no signs of disease – yet can still infect others around them. Good personal hygiene practices are the best way to avoid infection.

## 15.1 Precautions

In the field:

- Keep your food and trap bait separate in your pack.
- Wear surgical gloves.
- Wear clothes that cover skin to protect from cuts and abrasions, e.g. long trousers, sleeves and gloves.
- Cover any cuts.
- Use hand sanitiser, especially before eating or touching water bottles.

Upon your return:

- Wash your hands with soap and water for at least 30 seconds.

- Dry hands.
- Consider keeping gear worn or used at AIP separate from other clothing and equipment.

**Table 3: Details of Animal – Human Transmissible Diseases**

<b>Disease</b>	<b>How Caught &amp; Symptoms in Humans</b>	<b>Animal Hosts</b>	<b>Method of Spread to People</b>	<b>Notes</b>
Toxoplasmosis	Most infections cause no symptoms. Occasionally fever, rash, malaise, sore throat. If contracted in early pregnancy can cause abortion If contracted in later pregnancy can cause foetal abnormalities	Wild and domestic cats are the only animals that can contaminate the environment (passed in faeces). However, virtually all species can be infected, including humans. The parasite can remain dormant in muscle and other organs for the life of the animal/person.	Contact with raw meat (including rabbit as trap bait) or anything contaminated by cat faeces e.g. soil.	Women who are considering having a baby should have a blood test to check if they have antibodies to Toxoplasma. If they do not they should consider the risks associated with trapping as well as avoid close contact with young cats or cat faeces during the pregnancy.
Leptospirosis	Severe persistent headaches, high fever, sensitivity to light, sweating, nausea &/or vomiting, muscle pain, back pain, loss of appetite, mood changes, jaundice, breathing problems, vision problems, diarrhoea, skin problems. Symptoms can come on very rapidly. Patients speak of 'crashing' or collapsing. Hospitalisation may be required.	Rats, pigs and cattle	Rat urine entering the human body through mouth, eyes, nose or cuts. This can also occur through water that is contaminated with infected rat urine.	
Campylo-	Self limiting	Potentially all.	Faecal	

Disease	How Caught & Symptoms in Humans	Animal Hosts	Method of Spread to People	Notes
bacteriosis	watery diarrhoea, abdominal pain and bloody diarrhoea.	Birds usually show no symptoms. Other species are usually sick.	contamination of food e.g. vegetables.	
Rat Bite Fever	Usually after bite wound heals. Fever followed by rash and joint pain.	Rats.	Rat bites.	
Salmonellosis	Severe, often bloody diarrhoea. Lasts 7 days. Occasionally blood infections (septicaemia).	Wide range of domestic and wild mammals, birds reptiles, amphibians and crustaceans. <i>Salmonella</i> has been isolated from healthy animals from all groups.	Handling raw meat or anything contaminated by faeces. Through skin wounds or ingestion.	
Tuberculosis (TB)	Chronic (long term) lung and lymph node infection with possible bone, joint and soft tissue complications.	Possums, amphibians, fish, water snails, birds, (rarely dogs, cats and other domestic animals.)	Inhalation or ingestion of contaminated materials. Skin abrasions and scratches. Humans with immune deficiencies are at greater risk than others.	
Yersiniosis (pseudoTB)	Fever, diarrhoea, (which might be bloody), abdominal pain, sore throat.	Wide range of domestic and wild mammals, birds and reptiles.	Ingestion of water or anything contaminated by faeces.	
Ticks	Annoyance value. Some species exotic to NZ do carry other diseases.	Domestic cattle and horses. Wild birds, Lizards.	Tick attachment – usually on uncovered legs.	Remove the tick, making sure the mouthparts are also removed. Nail polish remover is good for this. Ticks are insignificant in transmitting diseases to humans in NZ.
Giardia	Severe diarrhoea	Not confirmed as a true zoonosis – most cases are from other humans.	Oral infection from contaminated water.	
Ringworm	Localised reddened itchy skin sores.	Wide range of mammals and birds, (including kittens and hedgehogs)	Direct contact with the skin of an infected animal.	
Psittacosis	Chills, high	Birds.	Inhaling dust from	

Disease	How Caught & Symptoms in Humans	Animal Hosts	Method of Spread to People	Notes
	fever, sore throat, irritating cough, headache, loss of appetite, muscle pain, pneumonia, heart disease.		contaminated faeces or feathers or from droplets from nasal and eye discharges.	
Allergic pneumonia (Pigeon fancier's lung; or Bird breeder's lung)	Cough, fever, difficulty breathing, weight loss.	Commonest in pigeon and budgerigar breeders but anyone working with birds in poorly ventilated areas and exposed to large amounts of dust from feathers and droppings can be affected.	Inhalation of dust from feathers and bird droppings.	
Cryptococcosis	Pneumonia but can cause other symptoms depending on site of infection e.g meningitis, bone or joint disease etc.	Associated with the droppings of pigeons and doves although also found normally in soil and on skin of people and many animals.	Dust inhalation or swallowing.	
Erysipeloid	Painful swelling, usually on a finger, progressing to low grade skin infection.	Pigeons, fish and takahe.	Enters skin through cuts or abrasions, or by penetrating bone splinters or fish bones.	

Reference: Table 3 is an extract of a document Compiled by John Potter from the original document by Steve Unwin & Richard Jakob-Hoff. NZ Centre for Conservation Medicine. March 2007.

# 16.0 Appendix J: New Volunteer Procedures

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If you are an experienced volunteer introducing a new volunteer to AIP there are some important points to cover - below is a list of prompts. If a new volunteer has been in email contact before coming to a volunteer session they will have received some basic information explaining the activities that take place at AIP and useful personal equipment for them to bring. New volunteers who have not previously been in email contact should be directed to the Volunteer Coordinator.

## 16.1 Things to Show a New Volunteer

- Ark Office.
- Ark Store:
  - First aid kits.
  - Baitline repair kits.
  - Bait.
- The Rangers' station and toilet.
- Radios (RTs) and batteries, including charging protocol.

## 16.2 Things to Tell New Volunteers

- Overview of AIP activities.
- Grading system for baitlines with examples of what to expect from an easy, moderate and hard baitline.
- The tools used for AIP activities and hazards associated with them. Refer to Volunteer Tool Use Guidelines document.
- Suitable clothing, footwear, water and food.
- Intentions book – how to complete it and how we use it.
- Lost person procedure.
- Ask if they have a severe wasp or peanut allergy in particular, as well as whether they have any other allergies.

## 16.3 Forms to Provide

- Volunteer Agreement Form.
- H&S Plan.
- Whole Ark map.

These forms are kept on the shelf labeled 'forms' on the left as you enter the Ark Store. Encourage the new volunteer to complete the Volunteer Agreement form while you are with them – you can retain the parts we need and ask the volunteer to read the rest at home.



# 18.0 Appendix L: Lost Person Procedure

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## 18.1 During Volunteer Sessions

If an AIP volunteer is **overdue** (according to their intentions) the Lost Person Procedure will be initiated. This process is defined by a flowchart and supported by a lost person kit. The Lost Person Procedure cannot be fully described in this document as it is too detailed – instead see the flow chart displayed in the Ark store.

AIP staff or an experienced volunteer will attempt to make contact with the person via phone and radio. If no contact can be made AIP staff or volunteer will phone the person listed in the Red Book intentions form as the emergency contact for the day. This is in case the volunteer has left AIP forgetting to sign out.

## 18.2 Independent Work Outside of Group Volunteer Sessions

If an AIP volunteer is working independently outside of session times and is overdue (according to their intentions) it may trigger their emergency contact to become concerned. The nominated emergency contact should then begin the Lost Person Procedure.

If an emergency contact is concerned for their volunteer should do the following:

Step 1: Phone the Ark office on 09 810 7014. Leave a message if there is no answer.

Wait no longer than 5 minutes to be called back.

Step 2: If you do not hear back from the Ark office call the Cascade Duty Ranger on **09 369 5826**. This will reach either a pager or cell phone. If it's a pager follow instructions and speak your telephone number.

Wait no longer than 5 minutes to be called back by the Duty Ranger.

Step 3: If you do not hear back from the Duty Ranger call the Senior Ranger's pager **0262422680**.

**AIP volunteers need to ensure that their emergency contact person is familiar with the AIP Lost Person Procedures and has the AIP contact phone number (09 810 7014).**

# 19.0 Appendix M: Working Alone

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## 19.1 Working Alone in the Ark Office

The roles of Programme Manager and Volunteer Co-ordinator sometimes require working alone in the Ark Office. Should an individual fall seriously ill or suffer an incident while working alone, an extended period could elapse before assistance could be provided. Staff are trained to be aware of this hazard and take personal responsibility for their own safety, exercising caution at all times. Staff will work in accordance with 'Appendix 3 – Working Alone Principles' (Forest and Bird Health and Safety Policy). Working closely with Auckland Council Cascades Kauri Park rangers further mitigates this risk.

## 19.2 Working Alone in the Bush

Working alone in the bush exacerbates many of the hazards identified elsewhere in this document. For example, a sprained ankle might result in a long walk out with the help of a buddy, but could become an overnight stay in the bush on your own. Being knocked unconscious in a stream would be serious with a buddy, but could easily prove fatal if you were on your own.

Given the increased risks, it is recommended that volunteers do not work alone in the bush. However, it is recognised that some experienced volunteers prefer to work alone and have done so for many years. As such, working alone is accepted for experienced volunteers, as well as contractors and staff on the condition that the following steps to mitigate the risks are taken:

1. Intentions must be left with a nominated emergency contact
2. Intentions must be completed in The Red Book Intentions Form in the Ark store if starting your activity from the Ark store.
3. All Essential Gear identified in section 7.5 is carried.
4. If owned, a mobile phone is carried (Mobile phone batteries drain quickly in areas of low coverage so consider keeping it turned off to conserve the battery).
5. RT is carried if available and practicable for the route taken. If no RT can be taken steps 1 to 4 become of greater importance and extra care must be taken.

In addition, it is recommended that the following suggestions be considered:

- 1) Carry a Personal Locator Beacon.
- 2) Carry spare food and water.
- 3) Carry an emergency blanket, although these alone should not be relied upon to prevent hypothermia.
- 4) Attend any bush safety training courses that may be arranged by AIP.



# 20.0 Appendix N: Volunteer Agreement Form

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**Name:**

**Phone Numbers:** Home:

Mobile:

**Address:**

**Email:**

**Next of Kin:**

**Name**

**Relationship**

**Phone Number**

## Medical Conditions/Serious Allergies

Please detail below any medical conditions or recent illnesses that we should be aware of (particularly bee and wasp allergies or diabetes), sensitivity to chemicals, chronic condition or old injury that could get worse, possibly as a result of the work you may be doing. Please ensure you carry your own medicine and any instructions for administering them in an emergency. If you have a known condition please describe the symptoms that you may exhibit to help others recognise what is happening to you and provide appropriate assistance.

- I wish to participate as a volunteer for the Ark in the Park project.
- I have read and understood the *Health & Safety Guidelines* and I agree to follow them.
- I am aware of the hazards involved and will take all care in keeping myself and others safe.
- I have read the *Procedures for Avoiding Spread of Kauri Dieback and Weeds* and agree to take all care in following them.

Are you a Forest and Bird Member? Yes  No

How did you hear about Ark in the Park?

**Signature:**

**Date:**

Email – [nature.project@forestandbird.org.nz](mailto:nature.project@forestandbird.org.nz)

Website – [www.arkinthePark.org.nz](http://www.arkinthePark.org.nz)