Handbook for Volunteers

Whakamārama Forest Project

Ngā Hoa o Pā Kererū

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1 Welcome and Background

Welcome to the Whakamārama Forest Project volunteer group. Thank you for offering your valuable time to help us protect and enhance this very special piece of the Kaimai Mamaku Conservation Park. The goal of our group is to help restore the native flora and fauna by removing predators.

1.1 Group origins

The idea for the group was initially proposed by Colin Hewens to Whakamārama Community Inc (WCI) in 2015. The community supported the project and initial communications to DOC and local authorities started. A successful application was made to Western Bay of Plenty District Council for a community grant to establish the first group activity in the Blade. Subsequently Paul Mason, leader of the Pā Kererū Track working party the Mahi Boys, worked in collaboration with Colin to upgrade the markings on the 40 minute Loop Track, now known as the Pā Kererū Loop track.

Whakamārama Forest Project (named Friends of The Blade from 2015 to 2026) initially set up grids of rat, possum and stoat traps over an area of 100 hectares, but the group have now extended their working area to over 300 hectares that extend east, west and south of the Blade carpark.

To date, Whakamārama Forest Project has over 45 volunteers donating over 3,000 hours of work annually.

1.2 Group aspirations

- To establish a Pest Free Zone centred on the Ngamuwahine and Ngāmarama Tracks in the Kaimai Mamaku Conservation Park. This will result in increased abundance of native birds and improved regeneration of the bush, which was extensively logged in the first half of the twentieth century.
- Eventually there may be an opportunity to encourage DOC to re-introduce taonga bird species to the area, such as kōkako, kākā and kiwi.
- To encourage the local population, as well as the wider Western Bay of Plenty citizens, to visit the Pā Kererū Track and take pride in the area.
- To involve other volunteer conservationists to join us in our predator control work, sharing the opportunity for fitness, mental stimulation and wellbeing that comes from time spent in the bush.

1.3 Map

The back page contains a map of Whakamārama Forest Project's trapping area. Note the map is continually being refined and updated. Up-to-date copies of the map are available in the document bag in the equipment trailer, on our Website and on ArcGIS Field Maps. (See 2.8 Field Maps App, below.)

2 Required Skills and Knowledge

- All volunteers will be trained in the safe and effective use of all traps and/or bait stations.
- All equipment needed to check and replenish the trap lines will be supplied.
- A moderate level of fitness is required for most trap lines, but volunteers will be allocated a line, or part line, that is appropriate for their level of fitness.

2.1 Equipment needed

- Good boots
- Small backpack or daypack
- Windproof, waterproof outer layer
- Water / drink bottle
- Hat and appropriate clothing
- Walking poles (optional)
- Mobile phone
- Snack food if desired

2.2 Equipment provided

- Rubber gloves
- Hi-vis vest
- Baits / lure
- Safety square and equipment for resetting traps.
- Notepad and pen to record results
- Roll of pink track-marking tape
- Whistle

2.3 Flooding

Most of the streams in the area are small and do not flood to a dangerous level. However, after heavy rain, depths can vary.

2.4 Drinking water

There is no treated water in the WFP trapping area. Water from streams in the area can carry enteric infections e.g., Giardia and Cryptosporidium, and should be treated before drinking. We recommend you bring at least one litre of fresh water with you.

2.5 Leaving the pest control area

Stick to the marked tracks and don't stray outside of the pest control area, as continuous forest extends many kilometres beyond the Whakamārama Forest Project's area into the Kaimai Mamaku Conservation Park.

2.6 Cell phone reception

Cell phone reception is very patchy, or non-existent in most parts of the trapping area. Calls can be made in some areas, but cell phones should not be relied on for communicating. However, we do recommend always carrying your phone with the Field Maps app (see 2.8), and to record images to share with the group or to use for publicity.

2.7 Track markings

All trap lines (north to south) are marked with pink tape. Each trap is marked with a pink triangle showing the Line number, bait station number and letters P (possum trap), R (rat trap) S (stoat trap), as appropriate. Pink tape is used to mark the track and make it very clear to anyone who may be using it. All access lines (roughly east to west) are marked with white tape and triangles. Any other triangles, other than pink, relate to walking tracks and are not part of Whakamārama Forest Project operations.

2.8 Field Maps App & Website

It is strongly recommended that all trappers have this app loaded onto their phone, from the App store or Google Play. It is an invaluable tool for navigation. The trap lines and locations are kept up to date and provide very accurate location information even without mobile phone reception.



ArcGIS also has a very informative desktop version. You can graphically see all our trap lines on a satellite map with 'heat circles' for total predator kill numbers etc. Please use the same username & password for both the app and the website:

Website: bit.ly/3G8MgNr

Username: Fob_viewer_BCA

(please email contact@whakamaramaforest.nz for the password)

2.9 General public

At all times of the year there may be walkers, trampers and hunters using the public tracks and hunters may occasionally use the bait lines as well.

Particularly in Autumn, deer hunters may be active in the bush.

2.10 Check forecasts

Before travelling to the trapping area, check the weather forecast to ensure that travel and working conditions will be safe. Extremely adverse weather, especially high winds, can create a dangerous situation for volunteers working their trapline. When the forecast gives enough warning of bad weather, volunteers will be notified by email that a Friday session is cancelled.

Any time a volunteer plans to go into the bush, either for a scheduled Friday muster or at any other time, it is

particularly important to have up-to-date weather information before setting out, and base their own decision on the conditions on the day.

2.11 Recording results

After finishing a trapline, please input your kill results in the correct shared Google spreadsheet. Links to the two spreadsheets are included in every newsletter: (1.) Interior lines, for regular traplines and (2.) Perimeter lines for AutoTrap (AT220) results. If you have problems or are unable to use the spreadsheets, please email the results to ourbladedata@gmail.com using the following format:

Subject: Results line xx Date xx/xx/xxxx

Joe and Anne Bloggs

P. 5/12/16

R. 1/17

M. none

S. 4

This means; P = Possum, R = rat, M = mouse, S = stoat, and the numbers correspond to the number of the bait station in which they were caught.

Please specify in the 'details' field of the spreadsheet, or in the email if you report that way, any rats caught in traps other than Victors: For example: R4,6(DOC200),7(2 rats under Good Nature traps).

If a trap has been sprung but there is nothing in it, check for fur or blood. Pests that have been caught may be eaten by rats, stoats, feral cats or pigs. Record the kill if there is evidence to suggest it.

Birds may eat the “cork” baits in the Warrior possum traps, usually without triggering the trap. Insects often eat the lure used in rat traps. Anything unusual noticed on the trapline should also be mentioned in an email to contact@whakamaramaforest.nz

NOTE: Volunteers have read-only access to the Field Maps app, so trapping data cannot be added via that app. Our data is added from the spreadsheet by the two volunteers in charge of our ArcGIS system. This is to protect the security of the FieldMaps system, which incorporates numerous other care groups.

3 Safe Working Procedures

3.1 Intentions register for regular Workdays

A sign-in, sign-out clipboard is kept in the trailer at the carpark on volunteer days.

All volunteers are required to sign in and out each time and include their vehicle registration.

It is very important to do this as it is the first point of reference if a search becomes necessary.

3.2 Intentions Record for Other Times

Volunteers may do their trapline outside the Friday, but they MUST complete a WFP Buddy Form. Leave this form with a family member or friend. This form includes:

- The name(s) of anyone else accompanying you
- The registration number and description of the vehicle being used.
- The trap line you will be working on.
- Mobile phone numbers for party members.
- The date and an estimated return time.
- Response procedures for the buddy to follow, including relevant emergency numbers for them to contact.

Copies of the Buddy Form are available to download and print at whakamaramaforest.nz

via the Volunteer Resources menu and the Volunteer Documents page. There are also hard copies held in the document bag in the equipment trailer.

Remember to notify your buddy of your safe return before the agreed emergency response time.

If working alone outside the normal workday hours, we recommend also carrying an Emergency Personal Locator Beacon with you.

3.3 Accident and Incident Reporting

If you notice anything that may be a health and safety risk to you or others, report it by completing an Incident Report and forward it to the H&S officer or a Leader.

All accidents and near misses are to be reported to the H&S Officer by completing an incident report. The form to use is available to download at whakamaramaforest.nz (Volunteer Resources menu --> Volunteer Documents) or from the document bag in the equipment trailer

3.4 ArcGIS

All volunteers are encouraged to install the ArcGIS Field Maps app (see 2.8).

3.5 Injury accidents on location

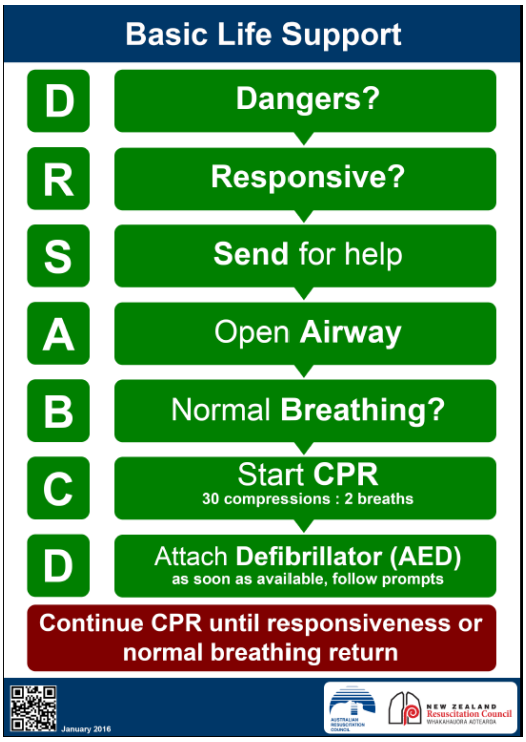
If a serious accident occurs, keep calm and deal with the problem methodically. Apply the DRSABCD action plan – danger, response, send for help, airway, breathing, circulation, defibrillator.

1. Assess the safety of the accident scene.
2. Ensure that helpers and the accident victim are safe from further injury from onsite hazards. If possible, without causing further harm, remove them from the area of danger.
3. Isolate the hazard if possible.
4. Seek help. Keep the H&S Officer's phone number in your contacts list. Alternatively, one fit member of the party must return to the prearranged meeting place and inform the Team Leader or H&S Officer of

the location and type of emergency.

5. Keep the injured / affected person warm and as comfortable as possible.
6. Render first aid to the accident victim.

3.6 Emergency First Aid Response



4 Emergency Plans

4.1 Missing Person Procedures

Thirty minutes after a volunteer of the Whakamārama Forest Project has failed to return from a work task at the expected time, Missing Person procedures will be initiated.

Your Personal Safety Contact person holding the Buddy Form will first attempt to contact the missing person by mobile phone to make sure there's been no change of plans.

If no contact can be made:

- Advise the H&S Officer or a Leader of the situation and inform them of the missing person's planned tasks and location of the work area. A WFP SAR team has been established to assist.
- Contact Phone numbers are on the front page of this handbook. Please put these numbers into your phone.
- The volunteer carpark will be checked to see if their vehicle is present (using the car registration number recorded in the Buddy Form or Volunteer register) and if so a search of the planned work area will commence. Establish coordination centre at the Blade car park.
- Two teams from SAR volunteers; Team one will follow the volunteer's line from where it begins and Team two will follow the line from the exit point backwards.
- On locating the last, freshly serviced trap, the teams will commence search pattern. If no success within the first hour, send a runner out to notify police and alert SAR to stand by.
- If still no success after further searching, initiate full Search and Rescue response.
- Designated Whakamārama Forest Project volunteers with knowledge of the operational area will remain on standby to assist Search and Rescue.

5 General advice specific to the WFP area

5.1 Trap checker's guide

There are a variety of traps in use at WFP, they are Victor Pro rat traps, Warrior Possum traps, Doc 200 stoat traps, Doc 250 stoat traps, Good Nature Gas re-setting traps; A24 for rats and stoats, and A12 for possums. We have AT220 self-resetting possum and rat traps around and through the trapping area. We also use live capture traps monitored by Mink Police units.

There are YouTube videos for these on the links below:

5.1.1 Victor Pro boxed rat traps

https://www.youtube.com/watch?v=OxkxWnxwEho

There is a difference from this video, in that we attach the Victor rat traps to a core flute slider that keeps them in the right position in our boxes, in case pigs or possums move the boxes.

5.1.2 Warrior possum traps

https://www.youtube.com/watch?v=Wh7ueF3-qfo

Points of difference:

- We set our traps up onto a backing board for easy attachment to the tree.
- We use a device like a long tent peg up inside the safety square, rather than putting our hands in the trap, to release the trap to test sensitivity, a light tug of between 60 gm and 110 gm should be the setting.

5.1.3 DOC 200 stoat traps

This shows the construction as well as how to use:

https://www.doc.govt.nz/documents/conservation/threats-and-impacts/animal-pests/doc200-predator-trap.pdf

This shows a single trap in box, rather than our modern style double traps:

https://predatorfreenz.org/resources/setting-up-your-trap/setting-doc-200/

When setting a double trap, always use a safety steel clip on the set trap so it doesn't go off while setting the other trap. DO NOT USE BARE HANDS WHEN HANDLING BAITS. Stoats have a very acute sense of smell and any scent of humans will put off the trap shy older stoats.

5.1.4 Goodnature self-re-setting gas traps

A12 possum traps and A24 rat and or stoat traps can be located via Field Maps App:

https://goodnature.co.nz/pages/videos

There are a lot of videos on this site but no simple instructional video. An A12 or A24 trap needs to have the lure refreshed every visit. Do this by unscrewing the cap, removing the bait holding cradle and scraping off stale lure then adding fresh lure. Also check that the gas is still strong every month by opening the top and triggering the trap by poking a light stick downwards.

5.1.5 AT220 Autotraps

We are currently deploying more of these resetting traps as funding becomes available. They are proving very efficient for both possums and rats. The AT220 employs a powerful DOC150 spring trap which is triggered by an infra-red beam, not a conventional mechanical release device. Therefore, it will snap closed without any physical contact. This could result in serious injury. Ensure you have received training before using these traps.

This is a guide to setting up the AT220 trap.

https://www.youtube.com/watch?v=fuTdICVH4tQ

5.2 Rat trap checking hints and pointers

- Always wear gloves when handling traps and dead pests.
- Never hold set traps or put your fingers in such a way that you will be injured if it goes off.
- Use a wire brush to clean rust or debris off the springs.
- Clean under the yellow plate on rat traps regularly to prevent build up.
- Don’t put excessive lure on the yellow plate, or onto trees. Entice with thinly spread smears, rather than a feed.
- Tuck the trigger wire under the right-hand side of the rat trap setting gap as it is the sensitive setting; only use the firm (left) side if that is too sensitive to allow the trap to set.

6 Line building and maintaining

All volunteers assigned to a line are responsible for keeping the line safe for anyone else who uses it. Regular maintenance tasks include:

- Pink tapes are maintained so you can see two tapes ahead and behind at every point of the track. Any fallen tapes should be collected and disposed of at home.
- Where tapes are visible from a neighbouring line, please use black felt-tip markers to write the line number on both lines' tapes, to prevent accidental line swapping.
- Remove vines or other hazards on the track. Be particularly careful about supplejack that has been cut above the ground on an angle that leaves a dangerous sharp point. They should be cut off as close to ground level as possible, at right angles to the stem. If practical, carry pruners with you for this job.
- Keep vegetation trimmed back so the trapping line is easily seen and navigated.
- Steep banks or slippery clay areas can be hazardous. Attach straps or ropes to assist climbing up or down. These are available from the trailer.
- Keep the information about trapping sites clearly legible on the pink triangles at each station. This should include line number, station number, P, R, S to indicate traps present at that station.
- Inform contact@whakamaramaforest.nz of any changes to trap locations.
- Trap sites should have a pink triangle attached to a tree to be visible in both directions, indicating the line number, bait station number and traps present by R, P or S.



7 Pest monitoring

Keeping an accurate measure of the numbers of pests killed, as well as the populations of native fauna, is an important part of our job. This is achieved using tracking tunnels, which are set up permanently, but only have a “cartridge” inserted 2 to 3 times per year. This has an ink pad in the centre, so that any creature that walks through the tunnel will leave its footprints on the ends of the card. Bait is placed in the centre of the card to attract a wide range of insects and animals. Common prints are weta, skinks, mice, rats and occasionally larger hedgehogs, possums, cats and stoats.

Currently we have three sets of 25 tracking tunnels. One is on lines 2, 3, 4, 5 and 6. The others are on lines 10, 11, 12, 13 and 14, and north of those lines maintained by BCA Cadets. Volunteers have been trained in the use of these tracking tunnels.

Cameras are also used for monitoring and assessment of pest levels, especially larger mammals such as cats, ferrets and stoats. Whakamārama Forest Project sees monitoring as an evolving situation and will keep abreast of changes to best practice.

8 Results Monitoring

8.1 Five-minute bird counts, day time.

Two times a year a team of interested volunteers assembles at the carpark at 8 am to visit five places where bird counts are done on the Pā Kererū Loop track. At each site the timer is set for five minutes. Each person draws a map and records birds that they see and hear as well as their direction. This helps ensure that birds are only recorded once. Any unidentified birds should still be recorded. At the end of the 5 minutes the group can discuss birds seen and heard, and attempt to identify the unknown birds. Results are transferred to the recording spreadsheet. Then the group moves on to the next site and repeats until all five sites are done. These are then added to the monitoring spreadsheet.

8.2 One-hour ruru (morepork) counts, evening.

Two times a year, several volunteers go to the car park at dusk, half an hour or so after sunset to listen for ruru calls. As calls are heard, an estimate is made of direction (compass point) and distance (near, middle or further away) and recorded by one of the team. This data is used to track changes in the population of ruru in our area.

8.3 Bush Monitoring

There are a series of photo points around the Pā Kererū Loop Track, for photo records of changes to the bush over the time. While the Five-minute bird counts are being done, photographic records are taken from these places. These are kept for future reference.

In October 2023 we also began a vegetation monitoring programme. Two plots, one inside and one outside WFP trapping zone, we marked and vegetation in each counted.

9 Appendix

9.1 Trailer Check in/out Sheet

(Example Only)

VOLUNTEER	LINE NO. + BAIT STATIONS	CAR REGO	IN	OUT	COMMENTS
Kay B (WKD)	23N 1-8; 22N 1-8				
Craig W	23S 20-34				
Grant & Dallas	22C 9-18; 21N 1-8; 21C 8-23				
Noelene	22S 19-31				
Kit & Ruth	21S 24-31				
Howard S (WKD)	20 1-26				
Keith S	19 1-23				
Ross P (WKD)	1 1-23				
Margot McC	2 1-22 + 3S 7-25 Alternating				
Dave & Paula H	3N 1-6; 4N 1-9 + Stoat 3 1-5				
Erica T	4S 10-29				
Ash P	5 1-30				
Frank & Beck v.d.G	6N 1-11; 7N 1-11				
Jeff & Stacey L	6S 12-25				
Stu M	7S 12-22				
Nathan H (WKD)	8N 1-20 (no BS 17)				
Paul H	8S 21-36				
Craig B	9N 1-16				
Stephen T-J	9S 21-31 (10S disestablished)				
Cath R & family (WKD)	10N 1-13				
Alison McC	11 1-13				
Pennell Family (WKD)	12 1-13; 13 1-16				
Fiona L	14 1-14				
Mike C	15 1-14				
Steve Y	16 1-13				
VACANT	17 1-11				
Santi & Family	18 1-11				

VOLUNTEER	LINE NO. + BAIT STATIONS	CAR REGO	IN	OUT	COMMENTS
(WKD)					
Louise C	Stoat 1 1-10				
Hamish C	Stoat 2 1-16				
Floater/New Vol					

9.2 Buddy Form (sample)

The buddy form below is reproduced from the original as a scanned image so the layout is preserved; an editable version can be built from the header text if you'd like it as a fillable Word form instead.

Pre-Departure Buddy Form

Information to be kept by Buddy

Name(s):_____

_____ Date:_____

Park name: *The Blade/Pā Kererū Loop Walk (end of Whakamārama Road)*

Trap line number: _____

Time of departure: _____ Estimated return time: _____

Mobile number: _____

Method of travel to park & car rego if used: _____

Procedure to follow should the volunteer fail to return

If the volunteer has not made contact 30 minutes after the expected return time, do the following:

1. Phone the volunteer's mobile
2. If no answer, call (Safety Officer): *Bill Reeves* phone number: 027-431-5887
3. If no answer, call (Volunteer): *John (Rolly) Rowlandson* phone number: 021-025-35913

Depending on who has been successfully contacted first, arrangement made to follow the trap line that the volunteer had set out on. If the volunteer is not physically located, emergency services will be called

Minimise the risk of an accident

Health and safety in the workplace is important for volunteers. Consider the park as a workplace when doing animal pest control work. To minimise the risk of an accident, please do the following:

1. Read, and mark-off the potential hazards. Most importantly, do the following:
    - Inform someone of the **work location (e.g., park name and trap line number), time of departure and expected time of return;**
    - Take a friend with you (if possible);
    - Take **extreme care** when handling pest control traps (refer to volunteer manual);
    - Always carry a basic **first-aid kit**;
    - Carry a mobile phone with you;
2. Have the contact details of the closest accident and emergency centre:

9.3 Incident report form (sample)

As with the Buddy Form, this is reproduced as a scanned image to preserve the original layout.



Incident Type:					**Location:**
Near Miss	Minor Injury	Serious Injury	Lost	Other	
Date:					**Time:**

Details of incident and action taken: (Include name of volunteer with their consent)

Notified:							
Your H&S Officer title	Project Manager	Police	Ambulance	DOC	BCA	F&B	Worksafe

Recording Person:		
Name:	Signature:	Date:

Please return to Health & Safety Officer Bill Reeves, in person or at: wgreeves@xtra.co.nz

9.4 Search & Rescue Phone Tree

The Buddy contacts Bill Reeves and John (Rolly) Rowlandson, who in turn notify the people below them, as shown in the chart.

Role	Name	Phone
Initiates the call	BUDDY	—
First contact (both notified by Buddy)	Bill Reeves	027-431-5887
First contact (both notified by Buddy)	John (Rolly) Rowlandson	021-0253-5913
Bill Reeves also notifies	Mike Tills	027-523-5661
Bill Reeves → notifies	Craig Watson	021-175-8601
Craig Watson → notifies	Alison McCulloch	021-111-3853
Alison McCulloch → notifies	Nichola Jacobsen	021 123 4025
John (Rolly) Rowlandson → notifies	Stephen Tetley-Jones	021-899-849
Stephen Tetley-Jones → notifies	Hamish Carnie	027-448-7782

9.5 Hazard Register

Much of the project work takes place in/on isolated tracks in the Whakamārama Forest Project area of the Kaimai Mamaku Conservation Park. General tasks include:

- Cutting and clearing vegetation from tracks, generally using hand tools.
- Erecting track markers and bait stations, using hammers and nails or staplers.
- Distributing baits to bait stations
- Removing and disposing of carcasses in traps.
- Monitoring outcomes.
- Working in isolation in the bush has inherent dangers, but a common sense approach, an awareness of the hazards and an emergency plan in place allows volunteers to work with a minimum of risk.

Some of the hazards listed below cannot be eliminated or isolated, but the outlined precautions will minimise the risks.

Key to Hazard Register			
H	High risk	E	Eliminate
M	Medium risk	I	Isolate
L	Low risk	M	Minimise

9.5.1 People

Hazard	**Consequence**	**EIM**	**Risk**	**Action to be taken to reduce risk**
Working, sometimes alone, in the bush	Becoming lost and harm from any of the hazards below.	M	H	Wherever possible, volunteers will work in pairs and on supervised work days they will be signed in and out on the work party list.
Manual handling	Sprains and strains. Crushing. Slips, twisting, compression.	M	H	Minimise the need for lifting heavy loads by choice of equipment, position of equipment. Reinforce the need for good lifting techniques. Take care and appropriate amount of time while carrying out tasks. Make sure participants are suited to the tasks.
Hunters (DoC should make hunters aware of our project when they apply for licences)	Personal injury.	M	H	Make presence known. Wear high visibility colours (hi-vis vests are supplied). Take annual break around April when 'Roar' is on.
Personnel Health (Personnel disability or condition)	Physical injury and death in some situations	E/ I/M	M	If you have a health condition that may be relevant such as a heart condition or asthma, please advise the Leaders. Necessary medicines must be carried by you.

Hazard	Consequence	EIM	Risk	Action to be taken to reduce risk
Marijuana cultivators or other illegal activities	Personal harm.	M	M	Retreat. Inform leaders, with details of location and vehicles as soon as possible. Leaders will inform police.
Public encounters with irrational people	Engaging angry or emotional public.	M	M	If encountering angry or disturbed persons in isolated situations avoid aggravating the person and do not argue with them. Retreat to find help.
Fatigue	Accidents, omissions.	E	M	Ensure adequate rest periods, hydration and food. Do not work if under the influence of alcohol or drugs (medicinal or recreational).
Members of public in the vicinity of work parties	Falls, tool injury, other bodily injury.		L	Appropriate signs displayed to warn visitors of serious hazards and non-access areas. Ensure lookouts are posted to control public access to the work site when near public walking tracks.

9.5.2 Conditions

Hazard	Consequence	EIM	Risk	Action to be taken to reduce risk
Difficult terrain, uneven, slippery tracks, etc	Falls resulting in personal injury.	M	H	Volunteers will be assigned to tracks appropriate to their fitness level. Wear appropriate non-slip footwear and take account of conditions. Do not attempt steep slopes in the wet as they are very slippery. Take extra care. Pay attention when walking. Visual check of conditions. Watch for trip hazards.
Working on steep ground	Falls, slips, trips causing injury.	M	H	Exercise caution when working near the top of cliffs, or beneath an overhanging cliff face. Work in pairs and beware of falling debris. Danger areas to be taped off. Work using ropes should only be undertaken by appropriately qualified contractors.
Tripping over vegetation, being knocked in face, falling on to sharp spikes of cut vegetation	Personal injury.	M	H	Clear tracks effectively, cut supplejack etc to ground level, minimise sharp points. Check tracks at start of each new phase of work. Follow others at a safe distance to avoid branches whipping back.
Stream crossings	Personal injury, drowning.	I, M	H	Wear sturdy boots and use a walking pole if you feel you need one. Cross at a sensible point – avoid deep pools. Do not attempt to travel up and down streams in the trapping area, as many are steep and slippery. If the stream or river is in flood DO NOT ATTEMPT TO CROSS.
Adverse weather	Sunburn and sunstroke; dehydration and UV exposure; hypothermia.		H	Check weather forecasts BEFORE you go out. Wear or carry clothing appropriate to conditions; take water, sunblock, hats, sunglasses, raincoats, gloves as appropriate. Carry some food. Monitor for symptoms (of heatstroke, dehydration or hypothermia). If detected stop work and apply first aid. Cancel or cease activities if weather conditions/forecast becomes too bad.
High Winds	Tree and branch falls.	M	H	In very high winds, projects will be postponed or cancelled. Risks are significantly increased if trees are very wet. If winds rise while working on a project, make your way carefully out of the forest.
Exposure to wasps, bees, poisonous or dangerous plants	Stings, allergic reaction.	I / M	M	Avoid wasps, etc, especially in numbers. Recognise tutu and tree nettle and avoid. Carry antihistamine in your first aid kit. Any volunteer with an allergy MUST notify the leaders - this should be recorded in the H&S Volunteer

Hazard	Consequence	EIM	Risk	Action to be taken to reduce risk
				Register. When in a team task, use competent team members and team leader. Leader to notify party members of allergies, likely reactions, appropriate medication and treatment prior to departure. If individuals carry an Epipen they should be trained in its use. Carry insect repellent
Crossing farmland, encountering dogs and farm animals.	Personal injury.	I / M	M	Landowners of access areas to be informed of starting dates of each programme of work. Volunteers to avoid animals as far as possible, keeping to field edge. Avoid going through paddocks where there are bulls. If you encounter aggressive dogs, back away.
Climbing Trees	Physical injury.	I/ M	M	Trees should only be climbed if considered vitally necessary, i.e., to obtain positional bearings or in the case of getting lost.
Contact with feral animals (deer, goats, pigs, cats, rats, stoats etc)	Leptospirosis from rat urine, bites.	I	M	Most feral animals will run if you encounter them but, in some circumstances, they may become aggressive. Retreat quickly. Avoid placing yourself downhill from wild animals – they frequently try to take a downhill escape route. Avoid contact with sick or cornered animals. Wear gloves as provided. Wash hands well after contact, especially before eating. Avoid rubbing eyes or face.
Emergencies (fire, earthquake, tsunami)	Drowning, suffocation, burns.	M	M	First aid kit and trained first aider in work party. Determine and communicate an assembly point. Know the closest street address to direct emergency services to when calling them.
Litter, contaminated materials	Infections, cuts.	M	L	Wear gloves to protect hands. Treat and cover any cuts. Wash hands before eating, or smoking. Use alcohol gel if desired.

9.5.3 Tools and Machinery

Hazard	Consequence	EIM	Risk	Action to be taken to reduce risk
Use of hand tools	Personal injury	M	H	Carry sharp tools safely, points down. Wear work gloves and chaps if appropriate. Ensure volunteers are competent in the use and maintenance of the tool. Assess volunteer competence with tool. Ensure on the job training is carried out for any volunteers with any tool they are not familiar with. Ensure tools regularly maintained and inspected. Be aware of others working around/behind you when using sharp tools to avoid accidentally striking another person.
Handling poisons, [currently not in practise with this group.]	Chronic or acute poisoning, or death.	I	H	Poisons can be taken in via skin, mouth, nose. Do not eat, drink or smoke while handling poisons. Wear the gloves supplied when handling poisons. Wash hands, forearms and face in soapy water at earliest possible time after handling. Avoid handling large amounts of bait in enclosed space, or wear dust mask if necessary. Details of the toxin of the day and its potential adverse effects will be put on the notice board at the beginning of the work party. Poison supplies will be kept in original marked and closed containers until counted out into bags/buckets. They will be kept in the locked gear shed when not under personal supervision. If you suspect that you or someone else has been poisoned, dial the National Poisons Centre (0800 POISON – 0800 764 766) or 111 immediately.
Use of power tools.	Personal injury	M	M	Only designated and skilled volunteers to use power tools. Ensure volunteers are competent in the use and maintenance of the tool. Assess volunteer competence with tool. Ensure on the job training is carried out for any volunteers with any tool they are not familiar with. Ensure tools regularly maintained and inspected. Be aware of others working around/behind you when using sharp tools to avoid accidentally striking another person
Use of chain saws	Massive trauma injury. Fire or tree-fall accident. Noise.	M	M	Appropriate protective clothing to be worn if using chain saw. Ensure volunteers are competent in the use and maintenance of the saw. Assess volunteer competence with tool. Operator must have one assistant and established communications. No worker to work within 3 metres of chainsaw operator. Basic

Hazard	Consequence	EIM	Risk	Action to be taken to reduce risk
				training to NZQA 6916, 6917.
Handling pest traps or accidentally stepping on a set trap	Physical injury including loss of fingers or toes and loss of blood	I	M	Do not work with a trap unless you have had instructions on how to. Always take care when setting or checking traps. Ensure volunteers are familiar with release methods for all traps used. Ensure volunteers are competent in maintenance and repair of all traps or pest control device used. Traps are to be kept in good state of repair. Damaged traps to be repaired or discarded.
Working with plants on such tasks as line clearing.	Cuts, punctures, trips or falls, or strains.	I / M	M	Wear tough or protective clothing over parts of body vulnerable to puncture wounds. Ensure appropriate training and or supervision takes place when line cutting takes place.
Work around trees/ banks	Falls, crushing	M	M	Where assessed, hard hats to be worn. Check for hazards before and during work. Competent persons only.
Dead animals	Decaying animals / disease / puncture wounds.	M	L	Supply trap clearing volunteers with protective gloves, disinfectant hand wash and other appropriate equipment to carry out their task safely. Treat any cuts, however minor, with antiseptic immediately.

IN ALL CASES, VOLUNTEERS WHO FEEL THEY ARE IN DANGER OR ARE UNHAPPY WITH ANY TASK SHOULD STOP IMMEDIATELY AND REPORT TO THE PROJECT LEADERS.

9.6 Whakamārama Forest Project Map

