

## **Predator Control Plan MRHLG 2019 - onwards**

### **Vision statement**

The project vision is to restore, protect and enhance the habitat of native flora and fauna, (especially the Kiwi and Kukupa) within the Mahinepua - Tauranga Bay catchments by eliminating the population of predatory and/or introduced plants and animals. Also to raise community awareness to the presence of rare endangered species and reduce the threats to their survival by enlisting the help of the local community.

### **Project goals and objectives**

Goal 1 - Raise community awareness to the presence of rare and endangered species.

#### Community objectives

We would like to see all the people in our district buy into the kiwi survival plan. As we have a number of overseas member landowners (often part time residents) our first priority here is to generate enthusiasm for the kiwi cause.

Enlist the help of the community to reduce the threats to their survival.

Educate the next generations about kiwi and the need for successive generations to become 'active' not passive in the fight for kiwi survival.

Goal 3 - Restore, protect and enhance biodiversity within the Mahinepua - Tauranga Bay catchments.

#### Kiwi objectives:

Our objective for our kiwi is to keep growing their numbers with effective predator control and a healthy safe habitat. So aim to be able to record and monitor them dispersing into areas, which at present have few or no kiwi. We belong to the Kiwi Coast and are part of the effort to provide corridors where kiwi can safely travel safely from one managed area to another.

Goal 4 - Reduce pressures on local biodiversity and safeguard ecosystems, species and genetic diversity.

#### Trapping objectives.

Maintain our proven good trapping regime to keep the low mammalian predator numbers necessary to keep our kiwi numbers growing.

### **Background**

#### **Planning**

##### Site description

Habitat: Diverse, Mature Lowland mixed kauri forest ecosystem, Dune ecosystem, Estuary, Wetlands, Regenerating scrublands & coastal forest, Pine Forest & Farmland.

Land status: Department Of Conservation Private

Existing species: Nationally endangered and regionally significant endemic species such as Northland Brown Kiwi, Kereru, Dotterel, Bittern, Kauri Snail, Coastal Maire & more.

Predators: Mustelidae - stoat, weasel, ferret, possum, pig, feral cat, goat, lagomorphs, hedgehogs, Magpie, rabbit.

Site Considerations/Hazards:

*Refer to Health and Safety Plan*

Size of project:

1132 ha plus buffer zone (adjacent Predator Control Groups = Total 1700 ha)

Community interest (if any): Local flora & fauna flourishing.

### **Outcome target**

The project goals are to restore, protect and enhance the habitat of native flora and fauna, (especially the Kiwi and Kukupa) within the Mahinepua\_Tauranga Bay catchments, by lowering/eliminating the population of predatory and/or introduced plants and animals. Also to raise community awareness to the presence of rare endangered species and reduce the threats to their survival by enlisting the help of the local community.

### **Result & Outcome target**

The target 2019 – 2021 is to maintain adequate predator control levels to sustain and increase our population of Northland Brown Kiwi. Kiwi are our primary indicator species for fauna and Pohutakawa for flora as they're both sensitive to predatory threat, easily observable, able to be sampled and are representative of the other organisms in the ecosystem. Our monitored kiwis are raising chicks to a year (the next breeding season).

Over the next 3 years (2019 – 2021 ) we intend to review and refine our pest management methodology based on pest and Kiwi monitoring results to date. We have camera's near nests and an absence of mustelid or rodent in our camera monitoring indicates adequate mammalian pest control. We are targeting all predators as listed above as they all create different levels of habitat damage. (Stoat, weasel, ferret; possum, pig, feral cat, goat, lagomorphs, hedgehogs, Magpie, rabbit).

We are in the process of remapping the traplines – stream lining and condensing them based on catch rates and bait uptake with the use of new technology to cost effectively target pest species. *This meets the goal to develop more cost efficient and effective survey and monitoring tools for both kiwi and the species that threaten them, including systems to manage the data collected.*

Our findings are on our website and in newsletters for the benefit of the local Whangaroa and wider kiwi conservation communities.

## Methodology

Traps and toxins are used on the private areas with the owner's co-operation (No 1080 is used)

We are planning to add tracking tunnels and chew cards into our traplines and have identified a need for new traps as many are old and need replacement.

MRHLG has ordered Environmate 100 bait stations to add to our artillery on the perimeter both for monitoring and use as bait stations to reduce reinvasion within the core area.

We are provide traps to our members and are encouraging members to purchase their own Environmate 100's as these are good monitoring tools as well as capable of being used for toxin use.

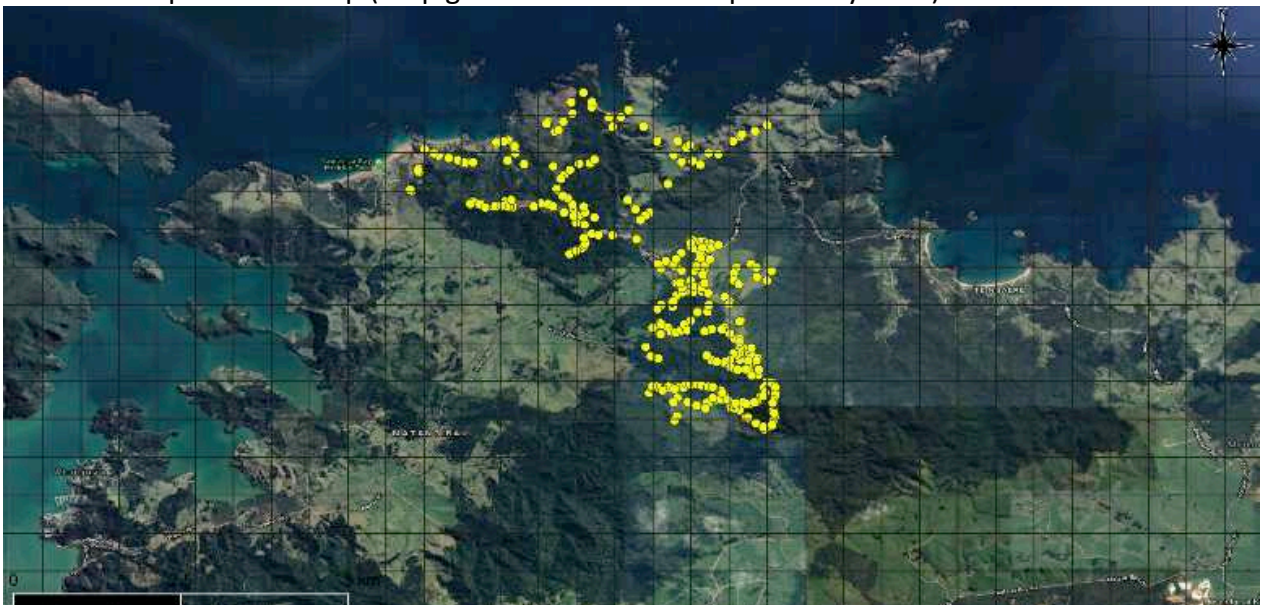
Landowners trap their own areas where possible and report kills to the group. Members have the ability to increase predator control through increased trap servicing intervals from monthly (by the contract trapper) to weekly/daily in some cases on some properties.

Potential future outcome monitoring: Annual Kiwi population Survey.

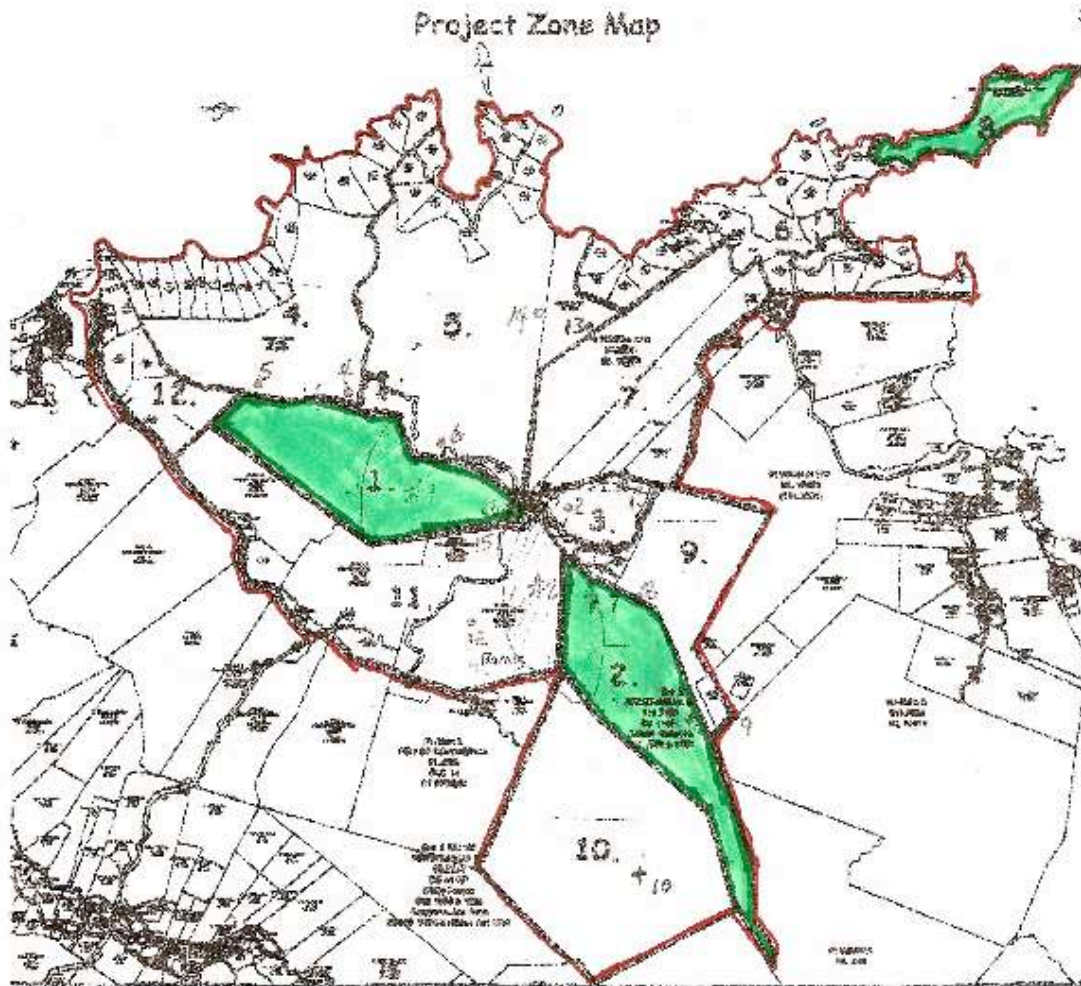
A member funds our 2 transmitters and our current program and we use our txm kiwi health checks to microchip and count any kiwi sighted on these visits.

We have applied for funding to do a proper 3-day population survey our goal is to do this annually. All Kiwis located micro-chipped and given health checks. We proposed that DOC set up a national database similar to the Companion Animal Data Base to record Kiwi numbers.

**Location** Trap location map (Map grid is set at 500m traps are in yellow)



Site map



- |  |  |
|--|--|
| 1. Tauranga Valley Scenic Reserve 1 (TVSR-1) | 2. Tauranga Valley Scenic Reserve 2 (TVSR-2) |
| 3. Radar Hill East Bay / Mairangi            | 4. Marble Bay                                |
| 5. Whangaiti Bay                             | 6. Mairangi Bay                              |
| 7. Hikuwai Trust Block                       | 8. Mairangi Peninsula Reserve                |
| 9. Otungi Block                              | 10. Deer farm                                |
| 11. Shepherd Farms                           | 12. Tauranga Bay Village                     |

## **Traps**

### *Trap model and type:*

Multispecies - DOC200 single & double; Fenn; Victor (in boxes); Trapinator; Warrior; Live capture; Timms; SA1, SA2, SA3

Total # traps used: 412 (currently in the field)

### *Lure type:*

Fresh; Salted; Long-life; Artificial; hare; rabbit; chicken; peanut butter and spices.

FF219; FF013; FF 213; possum carcass; cat carcass

Total # lures used: 12

### *Pattern of Lures/ trap lines Baits*

Spacing between lines (m) 300 - 400m

Spacing between traps (m) 50 - 200m

Frequency of lure renewal: Monthly

Frequency of trap checking: Monthly

Trap set density/ha: 4/10ha (0.4/ha)

## **Outcome monitoring**

Kill sheets = Numbers stable (kills recorded along with traps and bait).

Kiwi call = call numbers increasing by 10%/annum (e have been maintaining this to date).

Cameras to be placed near nesting kiwi and will record any predators.

Landowners in the core area monitor their own kills and for predator damage/kiwi presence.

Pohutakawa trees are to be monitored for possum damage (these trees, which were nearly dead at the project onset are monitored for foliar browse).

## **Consents required**

Landowner/occupier consent & DOC permissions.

## Health and Safety Plans

### Community Group Health and Safety Management Plan 2019.

**Mahinepua-Radar Hill Landcare Group Inc.** Will, as far as is reasonably practicable, carry out its work activities with every effort made to enable members, other participants, members of the public and any other person in the vicinity, to return home safely each day.

The following process will be followed:

#### **1. Appointment of Health and Safety Lead**

Marj Cox has been appointed as the overall health and safety lead for our group and will liaise with the Department of Conservation (DOC) on matters of risk assessment and health and safety.

#### **2. Preparation of Health and Safety Plan**

In preparing this safety plan our group has consulted with DOC Bay Of Islands and landowners to help identify potential hazards and risks for the site/type of activity along with possible control measures to minimize risk if it first can't be eliminated or substituted with a safer method

#### **3. General standard of care**

Our group will follow a general standard of care whereby:

In advance of an activity:

- Our group takes responsibility for the health and safety of its volunteers and members.
- Details of the activity including dates, tasks, logistics, skills and other requirements will be conveyed to potential team members;
- An appraisal will be undertaken to check team members have the fitness and competency to do the work;
- Team essentials will be identified and conveyed to team members.
- Team members will be advised of emergency response information.

At the beginning of the work activity, the team leader will:

- Lead an on-site risk assessment involving all team members to identify/confirm tasks required to perform the activity and ensure that everyone understands the hazards and risks at the site and the controls in place to reduce risk.
- Ensure that participants have the appropriate personal protective equipment and are adequately prepared for the tasks
- Identify any participants with pre-existing medical conditions, allergies or sensitivity
- Point out where the first-aid kit is stored on site;
- Ensure that participants are fit, healthy and competent to undertake the tasks.

- Ensure that new participants receive adequate induction and, if necessary, someone is assigned as their mentor;
- Ensure that communication channels/emergency procedures are in place;

During the work activity, the team leader will:

- Maintain an ongoing assessment of team safety;
- Rearrange or reschedule tasks if necessary to keep participants safe.

At the end of the work activity, the team leader will:

- **Lead a debrief** on health and safety aspects seeking feedback from participants and amend the safety plan if necessary to incorporate any agreed changes for future activities;
- **Record any incidents** and injuries involving participants on the Incident Reporting Form (appendix C).
- **Report any incidents** incurring moderate or serious injuries the appropriate authority as soon as possible
- Ensure prompt reporting, investigating and follow-up for incidents involving harm or damage (actual or potential).

#### **4. Responsibilities of team members**

- Team members will take responsibility for health and safety for themselves and others by
- Following health and safety procedures and instructions;
- Participating in identifying the tasks to be undertaken and associated hazards and risks, and devising mitigation measures at each site;
- Operating in a manner that ensures their own and others safety;
- Advising the team leader of any personal medical condition or disability that could affect the safety of self or others during the activity and carrying any personal medication required for their own safety;
- Being concerned for other members of the team and speaking up when necessary;
- Operating a buddy system whereby if deemed necessary, they have another person in their vision or calling distance at all times;
- Raising any health and safety concerns with the team leader;
- **Notifying** the team leader of any incident involving injury or damage;
- **Notifying** the team leader at the start of the activity if they need to leave early and ensuring that someone in the team knows when they have left.

#### **5. Review of safety plan**

The safety plan will be reviewed on an annual basis, or if an incident occurs, circumstances change or new hazards are identified.

The date of the next scheduled review is August 30th 2020

#### **6. Our commitment**



We recognize that any aspect of our work will entail some level of risk (likelihood of occurrence and degree of harm) to the health and safety of our group through exposure to a hazard (anything that can cause harm). We are committed to eliminating or minimizing those risks in so far as is reasonably practicable whenever we are undertaking work.

Date revised: August 30<sup>th</sup> 2018

Prepared by: Marj Cox Position in Community Group: Secretary.

**HAZARDS AND RISK**

**APPENDIX A**

This health and safety plan outlines potential hazards and risks that could occur in any setting related to the type of activity and particular place that our group is likely to be operating in together with **possible control measure to eliminate or minimize risk.**

**It is recognised that an on-site risk assessment will still need to be undertaken each time a team visits a site to review and identify any new hazards or change in risk no matter how familiar the team is with the site.**

Hazard	Risk/possible outcome	Risk assessment* (High/Medium/Low)	Control measures
<b>ENVIRONMENTAL CONDITIONS</b>			
Natural hazards such as uneven or slippery ground, deep boggy ground, icy or frosty ground, water bodies	Twisted ankle or knee, sprain, graze, drowning		<ul style="list-style-type: none"> <li>• Not working in adverse weather conditions or otherwise avoiding steep, slippery or unstable ground</li> <li>• Being aware of physical limitations and acting accordingly</li> <li>• Notifying others in team when unexpected uneven ground/holes are discovered or surface is slippery. Flag or cordon off where practicable</li> <li>• Supervising young children in proximity to water bodies</li> <li>• Looking for secure footing when working on steep banks</li> </ul>
Natural hazards such as flash flooding along a narrow water course	Broken bones, drowning		<ul style="list-style-type: none"> <li>• Taking into account weather conditions prior to site visit that may increase water flow</li> <li>• Not working in adverse weather conditions that could create increased water flow or dangerous conditions</li> <li>• Refraining from working on flood plain after heavy rain</li> <li>• Postponing work if necessary</li> </ul>
Adverse weather - cold Wind, rain, hail,	Hypothermia, lightning strike		<ul style="list-style-type: none"> <li>• Preparing for adverse weather with appropriate clothing</li> <li>• Using weather forecasts to aid</li> </ul>



lightning, storm			<p>decisions prior to and during the field activity</p> <ul style="list-style-type: none"> <li>• Stopping activity if bad weather persists</li> <li>• Participants are aware of symptoms of hypothermia</li> </ul>
<p><u>Adverse weather – hot</u> Exposure to sunlight/UV</p>	Heat exhaustion, dehydration, sunburn, sunstroke, skin cancer		<ul style="list-style-type: none"> <li>• Preparing for adverse weather with appropriate clothing e.g. hat, long-sleeved garment</li> <li>• Using weather forecasts to aid decisions prior to and during the field trip</li> <li>• Ensuring adequate water is carried by participants</li> <li>• Participants to come prepared with sunscreen</li> <li>• Watching for signs of heat exhaustion/fatigue</li> <li>• Providing for regular breaks in shade if possible</li> </ul>
<p><u>Falling objects</u> Being hit by an object (rocks, trees, branches) falling from height</p> <p>Dead or dying trees still standing</p> <p>Branches or tree trunks hanging in vegetation</p>	Bruising, concussion, death		<ul style="list-style-type: none"> <li>• Avoiding working in tall forest in high winds</li> <li>• Avoiding work at the bottom of exposed rocky slopes or cliffs</li> <li>• Taking care leaning against trees as they could be weak and fall over</li> <li>• Being aware of any branches/tree trunks suspended in vegetation above where intending to work</li> </ul>
<p><u>Vegetation</u> Branches on ground</p> <p>Branches at head height</p> <p>Pollen or flowers</p> <p>Vines on ground</p> <p>Hidden sharp objects, broken glass</p> <p>Tree roots (perched)</p>	<p>Tripping, twisted ankle, bruising,</p> <p>Poked in eye</p> <p>Allergic reaction, hay fever, asthma</p> <p>Tripping, twisted ankle, scratches, cuts</p> <p>Twisted ankle, bruising</p>		<ul style="list-style-type: none"> <li>• Stepping over branches on ground with care</li> <li>• Taking care standing up after kneeling on ground that there are no low branches to hit head on</li> <li>• Wearing safety glasses or moving to another place if low vegetation is a problem</li> <li>• Avoiding weeding of privet when it is in flower or producing pollen</li> <li>• Watching out for vines like blackberry and honeysuckle that could cause tripping.</li> <li>• Being alert to hidden objects below ground vegetation and always wear gloves and closed footwear</li> <li>• Taking care after rain as kahikatea tree roots in particular, can be slippery when wet.</li> </ul>

<u>Stream/river crossings</u> Slippery rocks, deep water holes, swift water	Twisted ankle, sprain, graze Hypothermia from wet clothes, drowning		<ul style="list-style-type: none"> <li>Identifying the safest place to cross stream/river</li> <li>Having one person assisting others across if necessary</li> <li>Not crossing a stream in flood - check weather forecasts and postpone work if necessary</li> <li>Not crossing if person doesn't have skills and experience to safely cross</li> </ul>
<u>Wasp and bee stings</u> Wasp nests, bee hives	Allergic reaction, anaphylactic shock		<ul style="list-style-type: none"> <li>Where possible, identifying any wasp nests or bee hives, avoiding disturbance and moving away from area</li> <li>Participants making others aware if they have an allergic reaction, any remedies required and where personal medication is held.</li> <li>Alternative options being considered for high risk participants with serious allergic reactions</li> </ul>
<u>Working near poison bait stations</u> Contact with toxin	Illness or possible death		<ul style="list-style-type: none"> <li>No contact to be had with bait stations or bait</li> <li>Supervising young children in proximity to bait stations</li> </ul>
<u>Working near electric fences</u> Unexpected contact	Shock		<ul style="list-style-type: none"> <li>Where possible/practicable contact landowner to turn off electric fencing</li> <li>Using wooden stick or rubber gumbot to hold down electric fence if needing to cross</li> <li>Avoiding working too close to live fence to reduce danger of contact</li> </ul>
<u>Stock</u> Stressed stock or wandering stock	Bruising, crushing		<ul style="list-style-type: none"> <li>Avoid entering paddocks with stock without land manager's permission</li> <li>Leaving gates as found</li> </ul>
<u>Existing tracks and structures</u> Broken boardwalk, wire or plastic protrusions, trees across path	Twisted ankle, lacerations		<ul style="list-style-type: none"> <li>Pointing out any broken boards or protrusions on board walk to rest of team. Mark with coloured tape if practicable</li> <li>Removing any loose obstacles from access track</li> <li>Advising landowner of hazard so situation can be remedied in the interests of others safety</li> </ul>
<u>Drug plantation</u> Discovery of plantation/operation	Injury from booby trapping, encountering drug growers		<ul style="list-style-type: none"> <li>Watching for trip wires, cyanide paste on trees and stakes and traps.</li> <li>Leaving any discovered drug plantation immediately and leave site undisturbed.</li> </ul>

			<ul style="list-style-type: none"> <li>• Responding in an appropriate non-confrontational manner if growers are encountered.</li> </ul>
<u>Hunters in vicinity</u> Accidental shooting	Injury, death		<ul style="list-style-type: none"> <li>• Avoiding popular hunting areas at key times</li> <li>• Wearing high-vis vests when working in forest</li> </ul>

Hazard	Risk/possible outcome	Risk assessment* (High/Medium/Low)	Control measures
<b>HAZARDOUS SUBSTANCES</b>			
<u>Animal pest control – toxins</u> Ingestion	Illness, death		<ul style="list-style-type: none"> <li>• Restricting handling of toxic baits to certified approved handler</li> <li>• Gloves being worn at all times handling bait, with spare gloves available in case of damage</li> <li>• Any baits removed from site to be contained in appropriately labelled sealable bag and be disposed of correctly</li> <li>• Washing hand thoroughly after use and before eating food</li> </ul>
<u>Weed control - herbicides</u> Use of chemicals, spillage, inhalation or ingestion	Headache, breathing difficulties, death		<ul style="list-style-type: none"> <li>• Obtaining Growsafe qualifications for team members so there are qualified operators for using spray chemicals</li> <li>• All chemical products to be kept in original container or if pre-prepared, labelled clearly and used under the supervision of person preparing the spray</li> <li>• Always follow the safety precautions on product labels</li> <li>• Wearing the recommended protective gear at all times</li> <li>• Maintaining a suitable margin in vicinity of waterways to avoid contamination of water when spraying</li> <li>• Having water available for hand washing plus hand sanitizer and hand wipes</li> <li>• Recognising some people may be sensitive to herbicides</li> </ul>
<u>Cleaning products, paint and solvents</u>	Headache, breathing difficulties		<ul style="list-style-type: none"> <li>• Following manufacturer's instructions</li> <li>• All chemical products to be kept in original container with instructions for use</li> <li>• Having a well ventilated room when using products indoors</li> </ul>

Hazard	Risk/possible outcome	Risk assessment* (High/Medium/Low)	Control measures
<b>TOOLS AND EQUIPMENT</b>			
Hand tool use Heavy objects, sharp blades, flying objects, entanglement	Bruising, lacerations, cuts, poked in eye		<ul style="list-style-type: none"> <li>• Having relevant personal protective equipment such as gloves, boots, overalls, protective glasses.</li> <li>• Being aware of the location of others and maintaining a safe distance of approx 2 metres apart</li> <li>• Not carrying tools over shoulder or leave lying on ground in unsafe manner</li> <li>• Checking for loose heads on axes, slashers etc before starting work</li> <li>• Watching out for falling branches when cutting tall vegetation</li> </ul>
Chainsaw Sharp blade, noise, fire, entanglement	Laceration, amputation		<ul style="list-style-type: none"> <li>• Confining chainsaw use to fully qualified persons</li> <li>• Insisting operator wear all appropriate safety clothing including helmet and gloves</li> <li>• Recognising the noise and safety factor of operating a chainsaw in the vicinity of others</li> </ul>
Campsite equipment Gas cookers and lanterns	Burns, asphyxiation		<ul style="list-style-type: none"> <li>• Gas appliances not to be used in confined space without suitable ventilation</li> <li>• Gas to be turned off after use</li> <li>• Cookers to be refuelled after cooling outside of hut/tent</li> <li>• Fuel to be kept away from heat sources</li> </ul>

Hazard	Risk/possible outcome	Risk assessment* (High/Medium/Low)	Control measures
<b>VEHICLES AND MACHINERY</b>			
4WD use Vehicle sliding out of control, rolling	Bruising, broken bones, serious injury or death		<ul style="list-style-type: none"> <li>• Use of 4WD vehicle by experienced driver preferably with off road training NZQA</li> <li>• Passengers not to be carried if not specified in manufacturers specifications</li> <li>• Helmet to be worn at all times</li> <li>• Assessing situation carefully before venturing off road</li> </ul>
Trailers Injury to another person	Bruising, broken bones		<ul style="list-style-type: none"> <li>• Drivers to be experienced and familiar with the vehicle and trailer being towed</li> <li>• Ensuring trailer is correctly and safely attached to vehicle</li> </ul>

			<ul style="list-style-type: none"> <li>Ensuring all loads carried on trailer are properly secured</li> <li>Exercising caution when reversing and using another person to signal if vision is obscured.</li> </ul>
<u>Vehicular access</u> Traffic, collision, lose control of vehicle	Serious injury or death		<ul style="list-style-type: none"> <li>Taking care turning into entranceways</li> <li>Avoiding parking on roadside if possible</li> <li>Recognising that working on a roadside may require a traffic management plan</li> <li>Wear high-vis vests when working near a road</li> </ul>
<u>Vehicle use – general</u> Lose control of vehicle, fatigue, goods moving inside vehicle	Crushing, broken bones, death		<ul style="list-style-type: none"> <li>All drivers appropriately licensed for the type and use of vehicle</li> <li>Driving to conditions and within speed limits</li> <li>Recognising fatigue and allowing someone else to drive where necessary</li> <li>Packing goods securely in vehicle so they don't move</li> </ul>
<u>Working around rail corridors</u>	Serious injury or death		<ul style="list-style-type: none"> <li>When working in or crossing a railway corridor a permit must be obtained from KiwiRail in advance of the activity at all times</li> <li>Always operating to conditions of permit</li> <li>Wearing hi-vis vest and checking railway timetable</li> </ul>

Hazard	Risk/possible outcome	Risk assessment* (High/Medium/Low)	Control measures
<b>PROJECT RELATED</b>			
<u>Track maintenance and construction</u> Public access,  Lifting and carrying,  Include other relevant hazards e.g. - Natural hazards - Tools/equipment - Wasps/bee stings	Harm to member of public  Sprains and strains, back pain		<ul style="list-style-type: none"> <li>Erecting a warning sign on sites having public access</li> <li>Wearing high-vis vests</li> <li>Minimising obstacles on track that could trip other users</li> <li>Minimising manual handling of heavy equipment</li> <li>Reinforcing the need for good lifting techniques</li> <li>Carrying large heavy items by two people</li> <li>Maintaining a safe working distance between volunteers</li> </ul>

<p><u>Hut maintenance</u></p> <ul style="list-style-type: none"> <li>- Working alone</li>   <li>- Helicopter use</li>   <li>- Ladders and working on roof</li> </ul> <p>Include other relevant hazards e.g.</p> <ul style="list-style-type: none"> <li>- Tools/equipment</li> <li>- Wasps/bee stings</li> <li>- Hazardous substances</li> </ul>	<p>Isolation, lack of assistance/treatment, hypothermia</p> <p>- Injury/fatality working around helicopters</p> <p>- Fall, broken bones, serious injury</p>		<ul style="list-style-type: none"> <li>• Notifying other team member of intended route/location and sticking to it</li> <li>• Carrying personal first-aid kit and mobile phone and locater beacon (if available)</li> <li>• Having a scheduled time to communicate with 'responsible person' at home base</li> <li>• Using authorised aircraft concessionaire and correct type of aircraft for the operation</li> <li>• Briefing by pilot on safety around helicopters and following their instructions at all times</li> <li>• Only essential people working around the machine for loading or unloading</li>   <li>• Ensuring ladder is to NZ Standards and sits firmly on ground, is at correct angle and is held securely in place</li> <li>• Not overreaching or going beyond the top rungs of the ladder when working from it</li> <li>• Roof ladder to be used on roof pitches greater than 10 degrees</li> <li>• Having another person present when working from ladders</li> </ul>
<p><u>Animal pest/predator control using traps</u></p> <ul style="list-style-type: none"> <li>-Self-setting traps</li>   <li>- Skinning, cutting animals</li> </ul>	<p>Crushing, bruising, laceration, infections</p> <p>Traps could fire on operator causing injury</p> <p>Cuts, infection</p>		<ul style="list-style-type: none"> <li>• Training of all people operating traps</li> <li>• Keeping traps well maintained</li> <li>• Using setting tool if appropriate</li> <li>• Keeping body parts well clear of closing mechanism</li> <li>• Wearing gloves when handling dead animals</li> <li>• Washing hands thoroughly after use and before eating food</li> <li>• Carrying first aid kit and ensuring any wound is cleansed and treated appropriately</li> <li>• Treating self-setting traps as live and only installing CO2 canister when trap is set correctly</li> </ul>

- Working alone	Injury, lack of assistance/treatment, hypothermia		<ul style="list-style-type: none"> <li>• Not placing items in front of striker</li> <li>• Operating traps as per the manufacturers guidelines</li> <li>• Ensuring knives are sharp and have a good handle grip</li> <li>• Carrying first aid kit and ensuring any wound is cleansed and treated appropriately</li> <li>• Notifying other team member of intended route/location and sticking to it</li> <li>• Carrying personal first-aid kit and mobile phone and locater beacon (if available)</li> <li>• Having a scheduled time to communicate with 'responsible person' at home base</li> </ul>
<u>Weed control (hand clearing)</u> Thorny, spiky or stinging plants; poisonous plants (sap), hidden sharp objects or broken glass	Cuts, thorns, stinging, poked in eye,		<ul style="list-style-type: none"> <li>• Learning to recognise thorny plants and stinging nettle and handling with care</li> <li>• Wearing protective gloves</li> <li>• Taking care when weeding around spiky plants and using protective glasses if necessary</li> <li>• Watching out for hidden objects below weeds</li> <li>• Having water available for hand washing and/or hand sanitizer</li> </ul>
<u>Nursery work</u> Potting mix, obstacles on pathways	Legionnaires disease, back strain, bruising, broken bones		<ul style="list-style-type: none"> <li>• Using correct lifting techniques when moving bags of potting mix or trays of plants</li> <li>• Avoiding opening bags of potting mix in enclosed areas</li> <li>• Keeping potting mix damp to reduce dust</li> <li>• Always wearing gloves and wash hand thoroughly after use</li> <li>• Using dust masks when sweeping up dry mix</li> <li>• Keeping pathways clear of obstacles such as wheelbarrow, hose and plants at all time</li> </ul>
Planting (digging)	Back strain, cuts, infection from soil		<ul style="list-style-type: none"> <li>• Using the right tool for the job and the right sized tool for the person</li> </ul>



			<ul style="list-style-type: none"> <li>• Maintaining a safe working space between volunteers</li> <li>• Cover any minor cuts and scratches</li> <li>• Having periodic back stretches and frequent breaks</li> <li>• Providing hand washing facilities and hand cleanser</li> </ul>
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### ON-SITE RISK ASSESSMENT

### APPENDIX B

<b>Project Name</b>			
<b>Project Location</b>			
<b>Project Date</b>			
<b>Tasks being undertaken</b> ( <i>list in sequence they are carried out – including travelling to site</i> )			
<b>Hazards or risks that differ from Safety Plan:</b>			
<u>Task:</u>	<u>Hazards</u>	<u>Risk Level</u> H/M/L	<u>Control Measures</u>
<b>Team briefing coverage:</b>	<input type="checkbox"/> All participants competent for tasks <input type="checkbox"/> Correct Personal Protective Equipment being used <input type="checkbox"/> Communications/emergency procedures in place <input type="checkbox"/> Opportunity given for participants to express any concerns		
<b>Team leader for day:</b> <b>Name:</b> _____	<input type="checkbox"/> Team briefing delivered (as per general standard of care); <input type="checkbox"/> Clear expectations set for team members about the work and how it should be done; <input type="checkbox"/> Team members are in agreement with health and safety plan.		
<b>Confirm team briefing delivered</b>	Signature: _____		

<b>Team members present at health and safety briefing:</b>	
<b>Name</b>	

### INCIDENT REPORTING FORM

### APPENDIX C

<b>Date of incident:</b>	<b>Injured person:</b>
<b>Time of incident:</b>	<b>Name of any witness:</b>
<b>Site Location:</b>	<b>Task being undertaken:</b>
<b>Details of Incident:</b> ( <i>Describe what actually happened</i> )	<b>What caused the physical injury?</b> Slip or trip, moving object, lifting etc
<b>Part of body injured:</b>	
<b>Severity of injury:</b> <input type="checkbox"/> Near miss/unsafe act <input type="checkbox"/> Minor <input type="checkbox"/> Moderate requiring reporting to DOC <input type="checkbox"/> Serious injury requiring reporting to DOC	<b>Medical treatment required:</b> <input type="checkbox"/> None <input type="checkbox"/> First aid <input type="checkbox"/> Medical treatment (Doctor) <input type="checkbox"/> Hospitalization
<b>Notifiable event</b> requiring reporting to WorkSafeNZ <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> (only required if group is a PCBU i.e. has at least one paid employee) Y/N	

<b>Safety Implications</b>	
Immediate corrective action taken:	
Likelihood of reoccurrence:	
Amendments required to safety plan:	
Signed: Name:	Date:

**Project Title:** ...Northland Kiwi Listening Data project

**Contractor:** ...Mahinepua-Radar Hill Landcare Group

### 1. Hazard Management

Describe the task and the site:	1 Sitting at designated sites between the hours of 6.30pm and 8.30pm to identify and record any kiwi calls heard	2 Each site to be covered by experienced person	3 Each listener to be signed out and signed in again at designated point.	4 All listeners to be informed of H&S regulations and given a sheet listing regulations prior to leaving check in site.
List all the hazards related to carrying-out the task:	• Fires started:	• Gates left open:  • Danger from stock.  Danger to stock.	• Slips and falls	• Vehicles damaging property•
Describe how the hazard(s) will be controlled.	No fire starting materials to be carried onto site.	All persons to check gates are left as found.  All landowners asked if stock is present in area being used. If so, no listening	Suitable footwear to be worn.  Site to be examined for new hazards prior to commencing listening.	All vehicles to be driven and parked in a responsible manner.

### 2. Accident and Incident Procedures

Any incidents will be reported to the coordinator of that evening. This person will report the incident to the appropriate authority as well as the Group Secretary for filing in the MRHLG files.	If urgent, a phone call will be made to the appropriate authority.  If not urgent, an email will be sent on the following day.	An appropriate member of the MRHLG will contact the relevant authority for advice and reporting.  E.g. An incident with stock would be reported to the landowner, an incident with fire to the Fire Service, an incident with wildlife, to Doc. Etc.
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### 3. Emergency Procedures

Emergency(s): Fire	Immediate phone call to the Fire service.
Describe the planning in place for the emergency:	At least one cell phone to be available at each site.

#### Health and Safety Plan

Project Title: CONTRACT TRAPPER  
 Contractor: Martin Schmid. 2019  
 Management Area: Mahinepua Radar Hill Landcare Group Inc. Management area

Describe the task and the site: This plan covers trapping, poisoning and hunting operations in the Mahinepua-Radar Hill management area.	1 Travel in area Farm tracks. Forestry Bush areas. Licences needed. Driver, motorcycle if required..	2 Handling of hazardous substances Licences needed. CSL licence	3 Trapping and hunting. Licences needed. Firearms licence.	4. Track maintenance. Tools. Bush knife Chain saw Scrub bar. Loppers
List all the hazards related to carrying-out the task:  Vehicle use. Includes 4WD vehicle, Trail bike or quad.	<ul style="list-style-type: none"> <li>•Vehicle sliding out of control</li> <li>•Rolling or crushing by vehicle</li> <li>•Injury by falling from bike or quad.</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous substance use.</li> </ul> Transporting toxins  Storage of toxins.  Use of toxins	<ul style="list-style-type: none"> <li>• Trap use and animal handling</li> <li>• Injury from traps. Injury or infection from animal handling.</li> <li>• Injury from use of firearms.</li> </ul>	Cuts Abrasions Staking
Describe how the hazard(s) will be controlled.	Warrant and rego to be kept up to date. Seat belt to be used. <ul style="list-style-type: none"> <li>• Any loose gear to be secured.</li> <li>• Helmet to be worn on bike according to the current bylaws.</li> <li>• Cell phone to be carried.</li> <li>• Assess waterways and terrain before accessing.</li> </ul> Get hazard updates from landowner if not visiting the	Storage conditions to meet H&S standards. MSDS sheets to be consulted as necessary. Appropriate transport medium to be used for carrying toxins to site. Gloves and overalls to be used according to WorkSafe practice. CSL, driving, firearms and any other appropriate licences to be kept up to date and shown to employers on request. Insurance and public liability policies to be kept current and	Trap maintenance carried out regularly. First aid kit to be carried. Appropriate vaccinations to be kept up to date. Gloves to be worn when handling traps in the field. Care to be taken in adverse weather. Task appropriate PPE to be worn. as required for each substance according to the CSL licence.. Firearms. Licence to be kept up to date and presented when required by	WorkSafe best practice to be followed when using chainsaw or scrub bar. Regular maintenance to be carried out on all equipment.. PPE suited to tools to be used.

	property regularly. Have someone aware of the proposed starting and finishing times.	shown to employers on request.. All notices of toxin use to be followed according to substance.	employers. All best practice to be used and all laws followed when using firearms including storage and transporting of same.	
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**4. Accident and Incident Procedures**

Describe how you will record accidents and incidents:  Machinery including vehicles.  Poisoning from use of toxins.  Slips and falls resulting in injury.	Describe how you will notify accidents and incidents  Cell phone from accident site to appropriate officials. .  Injury Accidents will be reported to the nearest medical facility.  Toxin incidents reported to local MOH. EPA if required.  Traffic and firearms accidents reported to police as well as medical facility.  Landowner will be notified of any incidents on their property.  Employers notified of any incidents relating to the work..	Describe how you will investigate accidents and incidents:  Cause of incident will be discussed with employer, landowner and H&S agent according to incident.  Firearms incidents discussed with police and any other entity involved.  All incidents will be reported to the Predator Control Committee and any adjustments in procedures needed will be added to the H&S plan.
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