

Pest Free Kaipātiki

Kauri Dieback Management Plan Guide

Welcome to the online interactive tutorial designed to help you create your Kauri Dieback Management Plan.

A Kauri Dieback Management Plan is simply an overview of how you will be conducting your work efforts in a reserve that has kauri within it, and is to show that you have learnt and will be implementing proper strategies to reduce or mitigate the risk of kauri dieback spreading through your reserve or work area.

This tutorial will look at each section of the management plan, and will give some information on how best to complete these sections.

To view the tutorials, click the links below:

Tips

Section One

Section Two

Section Three

Tips

- You will also need two forms of map(s) on your management plan,
- You can name the maps anything you like, and attach them to your plan as per the plans request.
- Once you've attached your maps, refer to them in the plan whenever you deem necessary. Examples for this would be marking out and labelling your trapping line, such as "TL.1". When filling out the rest of your plan, you can refer to specific activities on that line as opposed to other work areas in your reserve.
- Don't add to much detail, no writing essays!
- You don't need to send in a perfect copy first try! After you send it to us at PFK, we'll go over it and notify you of anything that needs changing. Once we believe your management plan is ready, we will then send it to council for approval.


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Tutorial](#)



Section One Tutorial

Section one of the kauri dieback management plan is a simple introductory page.

 **Reserve Name** DRAFT X / Version x.x

Kauri Dieback Management Plan for Insert name of reserve/property address

SECTION 1: General Information

This Plan has been prepared by:		On behalf of:	
Auckland Council/CCO staff	<input type="checkbox"/>	Auckland Council/CCO staff	<input type="checkbox"/>
Consultant	<input type="checkbox"/>	Consultant	<input type="checkbox"/>
Contractor	<input type="checkbox"/>	Contractor	<input type="checkbox"/>
Volunteer	<input type="checkbox"/>	Volunteer	<input type="checkbox"/>
Other: <i>please specify</i>	<input type="checkbox"/>	Other: <i>please specify</i>	<input type="checkbox"/>
Role:		Role:	
Email:		Email:	
Phone:		Phone:	

Auckland Council Approval

Date	Title	Name

Please contact kauri@aucklandcouncil.govt.nz for assistance or feedback.

Under what role do you enter the reserve?
(E.g: Animal Control Volunteer, Pest Weed Contractor, Etc).

If you are doing this through PFK, put
“Pest Free Kaipātiki Restorations
Society” in other.

In the Role section write Kauri
Protection Campaign Coordinator.


Under email, put _____

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Section One Tutorial

Section one of the kauri dieback management plan is a simple introductory page.



Tū Kaurihera o Tamaki Makaurau

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Kauri Dieback Management Plan for

Insert name of reserve/property address

SECTION 1:

General Information

This Plan has been prepared by:		On behalf of:	
Auckland Council/CCO staff	<input type="checkbox"/>	Auckland Council/CCO staff	<input type="checkbox"/>
Consultant	<input type="checkbox"/>	Consultant	<input type="checkbox"/>
Contractor	<input type="checkbox"/>	Contractor	<input type="checkbox"/>
Volunteer	<input type="checkbox"/>	Volunteer	<input type="checkbox"/>
Other: <i>please specify</i>	<input type="checkbox"/>	Other: <i>please specify</i>	<input type="checkbox"/>
Role:		Role:	
Email:		Email:	
Phone:		Phone:	

Auckland Council Approval

Date	Title	Name

Please contact kauri@aucklandcouncil.govt.nz for assistance or feedback.

What do you do in the reserve?
(E.g: Pest plant removal volunteer, Pest animal
Trapping volunteer, Weed contractor, Etc).

This entire section will be
filled in once your plan is
accepted by council.

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Section Two Tutorial

Section two of the management plan is a simple look into what exactly goes on in your work area, and a better look into the area itself.



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SECTION 2:

Location Information


Site/Property Owner Name			
Address			
Track Information			
Kauri Information	<i>For example, are there any Notable Trees (Schedule 10 of the Auckland Unitary Plan) or any other features</i>		
Activities carried out on site	<ul style="list-style-type: none">• Earthmoving/excavation/construction¹• Pruning/felling• Large mammal pest control (hunting)• Animal pest control• Plant pest control	<div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div>	<ul style="list-style-type: none">• Planting• Research• Livestock management• Other (<i>please specify</i>) <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div>
Frequency of activities			
Timing of activities			
Number of people on site			
Additional activity information (optional)			
Additional site information (optional)	<i>For example, size, terrain, ecology, track infrastructure, significance of kauri, location of kauri relative to tracks, indication of visitor numbers</i>		

¹ These activities are likely to require a resource consent in accordance with Chapters E11 and/or E15 of the Auckland Unitary Plan.

Section Two Tutorial

Site/Property Owner Name: Simply write down either the name of the property owner if private property, or the site name if working in public land. For instance, if you are working in Shepherds Park, just write Shepherds Park.

For address, you can write down the actual address or simply the street the work are is on.



Te Kāwhiri o Tāmaki Makaurau

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SECTION 2:		Location Information
Site/Property Owner Name		
Address		
Track Information		
Kauri Information	For example, are there any Notable Trees (Schedule 10 of the Auckland Unitary Plan) or any other features	
Activities carried out on site	<ul style="list-style-type: none">• Earthmoving/excavation/construction¹• Pruning/felling• Large mammal pest control (hunting)• Animal pest control• Plant pest control	<ul style="list-style-type: none">• Planting• Research• Livestock management• Other (<i>please specify</i>)
Frequency of activities		
Timing of activities		
Number of people on site		
Additional activity information (optional)		
Additional site information (optional)	For example, size, terrain, ecology, track infrastructure, significance of kauri, location of kauri relative to tracks, indication of visitor numbers	

¹ These activities are likely to require a resource consent in accordance with Chapters E11 and/or E15 of the Auckland Unitary Plan.

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Are there any formed tracks?
Are any tracks designed to minimise kauri dieback spread (raised walkways)?
Are there kauri dieback cleaning stations?

Section Two Tutorial



Auckland Council
Te Kōwhiri o Tāmaki Makaurau

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SECTION 2:

Location Information

Site/Property Owner Name	
Address	
Track Information	
Kauri Information	<i>For example, are there any Notable Trees (Schedule 10 of the Auckland Unitary Plan) or any other features</i>
Activities carried out on site	<div><div><ul style="list-style-type: none">• Earthmoving/excavation/construction¹• Pruning/felling• Large mammal pest control (hunting)• Animal pest control• Plant pest control</div><div><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></div><div><ul style="list-style-type: none">• Planting• Research• Livestock management• Other (<i>please specify</i>)</div><div><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></div></div>
Frequency of activities	
Timing of activities	
Number of people on site	
Additional activity information (optional)	
Additional site information (optional)	<i>For example, size, terrain, ecology, track infrastructure, significance of kauri, location of kauri relative to tracks, indication of visitor numbers</i>

¹ These activities are likely to require a resource consent in accordance with Chapters E11 and/or E15 of the Auckland Unitary Plan.

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Do you have any kauri within the reserve?

The next parts of section 2 are simple “fill in the blanks”.

Timing of activity requires you to put down when you conduct your volunteer activity, such as January/February, etc.

Number of people refers to only those regularly on site, it does not refer to working bees.

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Section Three Tutorial

Section three of the management plan runs through issues that can cause the kauri dieback pathogen to spread. It requires you to think about what can be done to mitigate these issues, to aid you in this part, look at the 2021 SOP requirements, found at the end of your management plan template.

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SECTION 3:

Kauri Dieback Mitigation Measures

List the measures taken to minimise the spread of the kauri dieback pathogen, based on the risk identified and the hygiene requirements described in the Auckland Council Kauri Hygiene Standard Operation Procedures 2021 (Appendix 2). Insert additional location map(s) and/or photos showing all relevant information.

Issue/Concern to be addressed	Mitigation	Additional Information
Wet weather	•	
Entering Kauri Hygiene Areas: <ul style="list-style-type: none"> Introducing or removing potentially infected material. Damaging roots, which will weaken the tree and make it more susceptible to infection. 	•	
Moving soil and/or potentially infected material (plants, debris, leaves etc) within, into and out of the park/ reserve/ property.	•	
Moving between contaminated and other areas/catchments	•	
Using machinery	•	
Using vehicles, including on-site/terrain vehicles/farm bikes	•	
Pest Animal Control – positioning and management of traps	•	
Companion animals	•	
Add issue if needed	•	
Add issue if needed	•	

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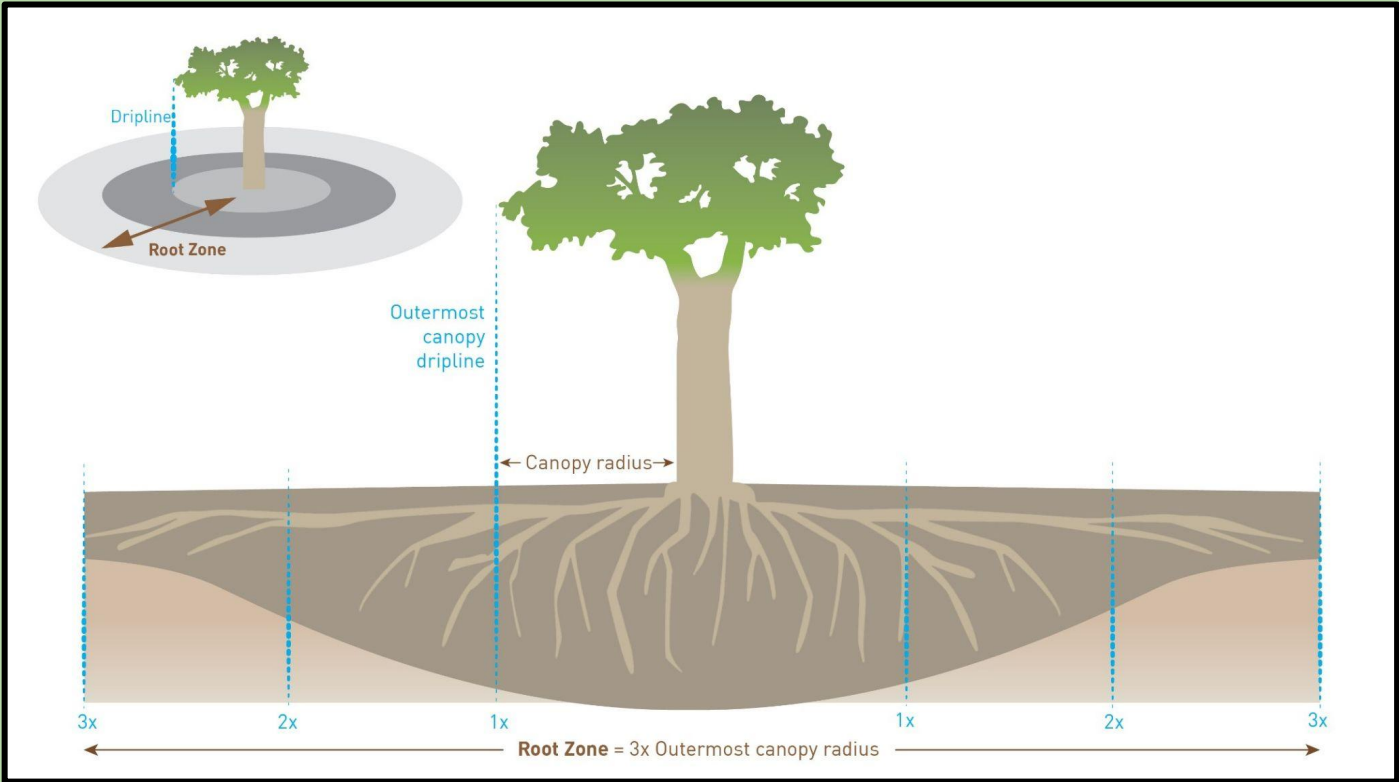
Section Three Tutorial

Let's look at an example.

Below we have an issue that needs to be addressed. This is “*Entering Kauri Hygiene Areas*”.

Issue/Concern to be addressed	Mitigation
Entering Kauri Hygiene Areas: <ul style="list-style-type: none"> Introducing or removing potentially infected material. Damaging roots, which will weaken the tree and make it more susceptible to infection. 	<ul style="list-style-type: none">

From our kauri training we know that the Kauri Hygiene Area is signified by a circle around the kauri tree that is 3x the dripline in diameter.



Section Three Tutorial

Issue/Concern to be addressed	Mitigation
Entering Kauri Hygiene Areas: <ul style="list-style-type: none">• Introducing or removing potentially infected material.• Damaging roots, which will weaken the tree and make it more susceptible to infection.	<ul style="list-style-type: none">•

This question relates to what we need to do if/when we are entering a kauri hygiene area.

Some things to think about with this question are:

- *Do we need to enter the hygiene area, or can we reroute around it?*
- *If we can't reroute, how do we enter and exit the hygiene area safely?*
 - *What are we doing in the hygiene area?*

We can also look at the SOP for some more information.

Section Three Tutorial

Scroll to the bottom of your management plan template, and you'll see this page here. Use this SOP page to help formulate your answers to section three.



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APPENDIX 2: Auckland Council Kauri Hygiene Standard Operating Procedures (SOP) 2021

Auckland Council Kauri Hygiene Standard Operating Procedures 2021 (Version 3.0)

General Minimum Requirements	Additional Requirements for Contaminated Areas	Additional Requirements for Protection Areas	Additional Requirements for Controlled Area Notice Areas (Waitākere Ranges and Hunua Ranges)
1. Avoid work in wet conditions and areas containing kauri that are prone to flooding or ponding.	13. A clearly marked set of footwear dedicated to Contaminated Area work must be worn when undertaking activities in Contaminated Areas. This requirement should be included in all relevant Auckland Council contracts.	18. No planting is to be undertaken in a Protection Area unless the plants are sourced from within the Area or an Auckland Council approved supplier.	It is prohibited to take soil, plant material, footwear, equipment or other items with visible soil into or out of the walking tracks. This includes soil on companion animals.
2. Clean and disinfect footwear before entering and after leaving areas containing kauri. Use every cleaning (hygiene) station encountered during the course of your work.	14. Activities in Contaminated Areas must be scheduled to occur <u>after</u> activities in Protection Areas and other areas where kauri are present.		Cleaning (hygiene) stations must be used whenever they are encountered.
3. Stay on formed tracks if possible.	15. If removing equipment from Contaminated Areas, it must be dry-brushed and contained for transport. Any soil removed from the equipment must be left on site.		
4. Stay outside of Kauri Hygiene Areas if possible.	16. Equipment, including pest control equipment, used in Contaminated Areas must not be re-used in any other areas unless it has first been steam-cleaned and subsequently sterilised.		
5. When leaving a formed track, inspect footwear immediately before leaving the track, and use the portable (personal) phytosanitary kit to clean and disinfect before re-entering the track network. Formed tracks are 'safe zones' that need to be kept free of potentially contaminated soil.	17. Once installed in a Contaminated Area, pest control equipment such as traps, bait stations and monitoring equipment must be serviced on-site and not be moved within the site.		
6. All tools, machinery and other equipment must be clean and soil free on arrival, and when leaving a site. Tools, machinery and other equipment previously used in a Contaminated Area must not be used in any other area unless they have been steam-cleaned and subsequently sterilised first.			
7. Wheeled or tracked machinery must be soil-free when entering areas where kauri are present, and must remain on site for the duration of the works.			
8. If moving between different areas and/or catchments, work in low-risk areas (for example, areas where kauri dieback has not been detected) first, and high-risk areas last.			
9. When pruning, felling or removing kauri, the procedures set out in the Best Practice Guideline for Tree Removal and Pruning of Kauri must be followed.			
10. All material (such as weeds, vegetation, roots, trunk, bark and by-products produced during pruning or removal, for example sawdust) from within the Kauri Hygiene Area must be left on site. If removal is necessary, transport off-site must be in secure containment (to prevent loss during transport) and disposal must be to an approved landfill.			
11. Any soil excavated within a Kauri Hygiene Area must be left on site. If removal is necessary, transport off-site must be in secure containment (to prevent loss during transport) and disposal must be to an approved landfill.			
12. No soil, vegetation or fill materials may be brought onto any Auckland Council land where kauri are present, including local and regional parks, without prior approval from the Auckland Council Kauri Dieback Team. All landscaping and vegetation supplies must be obtained from a source known to be free of kauri dieback disease.			

Section Three Tutorial

From this SOP list we can see a few things that will help us with our answer:

General Hygiene Requirements:

- *4. Stay outside of Kauri Hygiene Areas if possible.*
- *10. All material (such as weeds, vegetation, roots, trunk, bark and by-products produced during pruning or removal, for example sawdust) from within the Kauri Hygiene Area must be left on site. If removal is necessary, transport off-site must be in secure containment (to prevent loss during transport) and disposal must be to an approved landfill.*
- *11. Any soil excavated within a Kauri Hygiene Area must be left on site. If removal is necessary, transport off-site must be in secure containment (to prevent loss during transport) and disposal must be to an approved landfill.*
- *2. Clean and disinfect footwear before entering and after leaving areas containing kauri. Use every cleaning (hygiene) station encountered during the course of your work.*

Using these you can begin to connect a few more dots as well. Number 2 states to clean and disinfect footwear before entering an area containing kauri, but we can take it another step, we learnt in the workshop that we should clean out shoes before entering and after leaving a kauri hygiene area (KHA), we can write that down too!

Section Three Tutorial

Although writing out everything is great, also remember to not over complicate things. Write down short, succinct ways you will be adhering to the SOP to mitigate the problem you may arise. Try to think outside the box a bit, but don't go too crazy!

Issue/Concern to be addressed	Mitigation	Additional Information
Wet weather	•	

If we have a look at this question, we can see that the answers should be very simple.

An acceptable answer is:

“After a rain event, we will not enter the reserve for at least 3 days after the last rain fall.”

An example of going a bit overboard would be as below:

“When there has been a wet weather event, we will measure the soil humidity every day until it is safe to begin entering the reserve. After a wet weather event, and it is safe to enter the reserve, we will only work in the gulleys of the reserved, until the ground is completely dry. Then we will begin to work upwards into the higher points of the reserve, please refer to our map to see exactly where we will be working depending on soil moisture...”

Section Three Tutorial

Let's look at another example.

Below we have an issue that needs to be addressed. This is “*Pest Animal Control - positioning and management of traps*”.

Issue/Concern to be addressed	Mitigation	Additional Information
Pest Animal Control – positioning and management of traps	<ul style="list-style-type: none">	

From our kauri training, and one of our previous answers, we know that we shouldn't remove items or place items in a Kauri Hygiene Area.



Some things to think about with this question are:

- *What will we do with traps we find that are in a kauri hygiene area?*
- *Where will we put new traps that we put into the reserve?*
- *What will we do with the carcasses of caught pest animals?*

We can also look at the SOP for some more information.



Section Three Tutorial

From the SOP list we can see something that may help us with our answer:

General Hygiene Requirements:

- *6. All tools, machinery and other equipment must be clean and soil free on arrival, and when leaving a site. Tools, machinery and other equipment previously used in a Contaminated Area must not be used in any other area unless they have been steam-cleaned and subsequently sterilised first.*
- *Although not on the SOP, you can see that no weed matter or soil can be removed from a KHA. What else, while trapping, shouldn't be remove from a KHA? (Hint, what are you trying to trap?).*

Using these we can give a good answer!



Section Three Tutorial

Things to remember:

- *Keep it simple, don't over explain your mitigation procedures.*
- *Remember to include (again, in simple terms) everything you can do to help mitigate risk to Kauri trees.*
- *The SOP is designed to help you answer all questions.*
- *The maps for your management plan are the most important thing!*

If you have any questions, feel free to email PFK at:
enquiries@pestfreekaipatiki.org.nz