



KauriKonnnect

Welcome to this edition of KauriKonnnect – our last for 2017

There's been much interest and comment about kauri dieback over the last few months. Much of this has been generated following the release of the Waitākere Ranges Kauri Dieback Report and, more recently, the rāhui put in place by Te Kawerau ā Maki.

We acknowledge Te Kawerau ā Maki as mana whenua of Waitākere and respect their desire to protect kauri.

The Waitākere report is a clear reminder of the difficulties this disease presents and the ongoing efforts needed to protect kauri from it. The report found infection rates of kauri in the Waitākere Ranges had increased from 7.9% in 2011 to 18.95% in 2016. It also showed that:

- » the highest risk vector for dieback moving into new areas is soil disturbance associated with human activity

- » there's scope to improve the effectiveness of cleaning stations
- » greater compliance by people with cleaning procedures is also required in order to manage the disease.

While it is always disappointing to hear about more kauri being affected, we wonder what the state of the Ranges might be like without the Kauri Dieback Programme and the efforts of hundreds of people determined to combat this disease.

On a more positive note, the report will help to further build our knowledge on how to better manage kauri dieback and its impacts. It has also been good to see that public awareness of the disease has grown considerably, doubling in the last six years. We need to look at translating more of this awareness into behaviour change – getting people to consistently follow the correct hygiene practices when they visit kauri forests.

KauriKonnnect is the quarterly newsletter of the Kauri Dieback Programme, a collaborative partnership between tāngata whenua, the Ministry for Primary Industries, the Department of Conservation, Auckland Council, Waikato Regional Council, Northland Regional Council, and the Bay of Plenty Regional Council.

Working together

Kauri dieback is a pernicious disease and we must continue working together to combat it. Everyone has a role to play in protecting kauri and ensuring that they personally take steps to prevent the disease spreading.

A great deal of work to protect kauri continues to be delivered. Some of these developments are featured in this KauriKonnnect – for example:

- » The Department of Conservation's improvement work for walking tracks
- » Work to protect thousands of young kauri at the Driving Creek Railway
- » Researching the potential of traditional Māori medicine (rongoā) to improve kauri forest health
- » Results from a five-year trial involving phosphite injections for infected juvenile kauri are being reviewed
- » The use of remote sensing tools to more easily detect kauri and the dieback disease are progressing.

I'd like to acknowledge the efforts of everyone from tangata whenua, regional councils and central government, industry organisations, local groups and community volunteers, who are all working tirelessly to protect our precious kauri.

Thank you all for what you have achieved this year.

Roger Smith
Chair

Kauri Dieback Programme Governance Board

Ambassadors give a helping hand

While most of us will be out and about at the beaches over the summer break, spare a thought for those who will spend their free hours in our parks helping visitors understand why it's imperative to use cleaning stations to stop the spread of kauri dieback.

A team of kauri dieback ambassadors will be out around the region to chat about the importance of cleanliness in stopping kauri dieback disease.

They'll be setting up near cleaning stations at parks and wharves, and spreading the word about the need to stop, scrub and spray your shoes and stay on open tracks.

It's a continuation of the programme begun earlier this year; however, the team is bigger and ambassadors will be at Waitākere and Hunua Ranges Regional Parks, several Northern regional parks, Kaipātiki local area parks and on Waiheke Island.

Ambassadors will also be at the downtown wharf and Half Moon Bay car ferry terminals, talking to people going to Waiheke and other islands with healthy kauri.

The Department of Conservation is joining in this year and their ambassadors will be at Okura and Goldies Bush.

Tracks closed to prevent kauri dieback

The expansion of the programme follows the council's decision on 5 December to support Te Kawerau ā Maki rāhui in principle. It was decided to immediately close 13 tracks (nine permanently) and it identified another 17 for closure to prevent the spread of kauri dieback.

"Kauri dieback is a deadly disease with no cure, and hygiene is one of the best weapons to stop it spreading," says Waitākere Ward Councillor Penny Hulse, Chair of the Environment and Community Committee.

"We also urge people to stay away from any closed tracks. These are often closed to protect healthy trees, protection which is vital for the future of kauri."

"The direct engagement and education we get from the ambassador programme is invaluable to getting these messages across to the public."

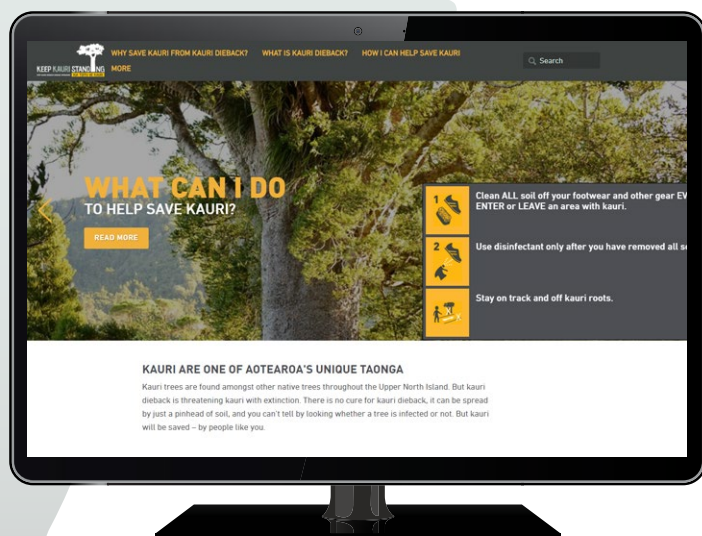
So if you're planning on heading out for a bush walk or hike this summer, consider a park outside of Waitākere Ranges or if you're using an open path in the Waitākere Ranges make sure you keep on the track.

See a list of **closed tracks** in the Waitākere Ranges.



Elise Wood, Cascades ambassador.
Image courtesy Auckland Council.

Welcome to www.kauridieback.co.nz



WHAT CAN I DO TO HELP SAVE KAURI?

That's the headline question all visitors to www.kauridieback.co.nz are confronted with on the website's home page.

It's designed to make the new Kauri Dieback Programme website immediately relevant to visitors.

Click on 'read more' and immediately the question is answered with some general points and then in ways that apply directly to the most common kauri forest user groups – walkers, runners and trampers; hunters; visitors; mountain bikers; dog walkers; and horse riders.

Lynn McIlveen from the Ministry for Primary Industries has been closely involved in the Kauri Dieback Programme and helped oversee the new website's development.

Lynn says the site's approach is a response to the need to communicate key messages to the most frequent forest users so they can all do their bit.

"We need to make it easy for people to help and providing customised advice for each of the most common use groups does that," Lynn says.

"With one click they can be informed and empowered to help the cause."

That's the first of many layers of information on the site. Dig a little deeper and you will find information, maps, reports and a plethora of other resources on the Kauri Dieback programme.

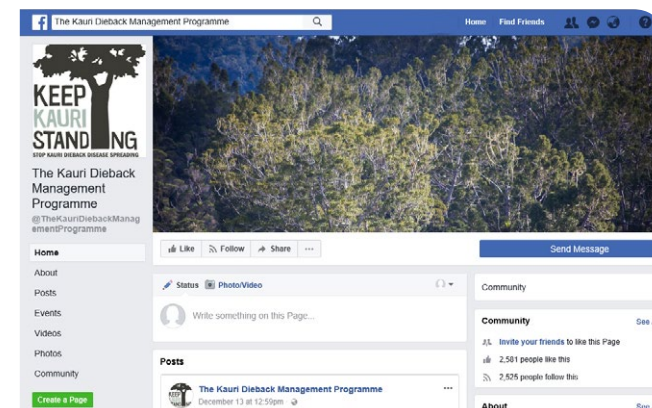
"If you just want to know what to do when you go for a walk in the forest, the answer is here. If you want to dig into research reports, programme reports, product safety data or reports from our partner organisations they are here too," Lynn says.

"Communications and changing people's behaviour are critical if we are to successfully combat the spread of the disease and save our kauri forests so getting the site up and running is an important milestone."

The website is designed to be the one-stop-shop on Kauri Dieback. It will be completed in the near future with a password protected area where partner organisations and stakeholder groups actively working on the programme will be able to access and store further resources and layers of information.

Watch this space!

Visit www.kauridieback.co.nz and find out more.



Staying in the kauri loop

Interested in getting the latest research news, great kauri photos, and updates on the fight against kauri dieback?

Just go to the **Kauri Dieback Programme's Facebook** page, "like" it, and you'll start enjoying updates on these topics and others, via your Facebook news feed.

PASS IT ON. Please spread the word by sending this newsletter through your networks via email or print off hardcopies to pass on to those you meet.

Are you new to KauriKconnect?

Go to www.kauridieback.co.nz and put in your details at the bottom of the page – you'll never miss a copy again!

New viewing platform helps keep kauri standing

The Te Haua Uru track near Dargaville is sporting a significant new viewing platform, as part of the ongoing fight to protect our native kauri trees.

The popular hill-top lookout was situated on an inter-mingled mass of kauri roots, making it particularly vulnerable to the spread of kauri dieback – a disease that lives in soil and infects kauri roots.

The platform's circular design, with a diameter of 5.2 metres, is based on the trunk size of Te Matua Ngahere – the widest and second largest living kauri tree in New Zealand, located in Northland's Waipoua forest.



There's no cure for kauri dieback, and the disease kills most if not all the kauri it infects. It can be spread by just a pinhead of soil, and you can't tell by looking whether a tree is infected or not.

We can only save our kauri forests by containing the disease and preventing it spreading into other areas. Humans are the number one way it is spread so we need everyone to play their part to help save kauri for future generations.

You should always stay on tracks and off kauri roots, and clean all footwear and gear every time when entering or leaving a kauri forest.

Find out more about what DOC is doing to protect kauri on conservation land.



TE MATUA NGAHERE

'Father of the Forest' is the second largest living kauri tree in New Zealand. It is also considered to be the older of the two largest living kauri trees and is estimated to exceed 2000 years of age.

Ref: Department of Conservation, Te Matua Ngahere Walk track notes.

Protecting young kauri at Driving Creek Railway

The Driving Creek Railway, New Zealand's steepest narrow-gauge mountain railway, has benefited from a grant by the Tindall and Aotearoa Foundations to help protect the 9,000 kauri trees on its property.

The railway is located on the outskirts of Coromandel town was set up by the late Barry Brickell. As well as the 2.7km railway which rises 115 vertical metres, the property also includes a predator-proof bird sanctuary and a working pottery area.

The grant of \$4,000 – sourced through the Waikato Regional Council – has been used to build two permanent cleaning stations.



One is at the entrance/exit of the bird sanctuary which includes many young kauri. The other is at the edge of the railway station area, where staff enter and leave the forested area to carry out maintenance on the railway. This area is currently not open to the public.

“We wanted to make sure that everybody going to where the kauri are, arrives and leaves with clean footwear,” says Robynne Jones of Driving Creek Railway.

In developing the 24-hectare property, which he bought in 1974, Barry Brickell planted thousands of kauri seedlings in his efforts to keep the trees flourishing.

The cleaning stations were built by Driving Creek Railway staff, using the same skills they call on to maintain the five viaducts, five bridges, three tunnels and two spirals on the track.

Further development is planned on the property to include walking tracks through the bush and a zip line, which will allow visitors to get a close-up view of the bush from above.

“The cleaning stations will become even more important as we develop more activities, giving visitors more access to the site and will help protect the 9,000 young kauri trees,” Robynne says.

The Aotearoa Foundation was established in 2004 by Julian Robertson, a retired New York-based hedge fund manager and his wife Josie. It seeks to make high-impact grants in New Zealand in three principal areas: education, conservation and environmental stewardship, and medical research.

The Tindall Foundation is a philanthropic family foundation set up by Sir Stephen and Margaret Tindall, focusing on several areas: Supporting Families and Social Services; Caring for our Environment and Preserving Biodiversity; Encouraging Enterprise and Employment; Strengthening the Community Sector; Promoting Generosity and Giving.



Science central to kauri dieback management



Traditional Māori medicines, cultural indicators and remote sensing tools may all have a role to play in the management of kauri dieback. Ministry for Primary Industries Planning and Intelligence Lead for the Kauri Dieback Programme, Travis Ashcroft, highlights some of the latest science and research initiatives in the battle against the disease.

Scientific research continues to be critical in the management of kauri dieback as we search for ways to reduce its impact and improve the health of our kauri forests. These are updates of some of the key initiatives.

Traditional Māori Medicines (Rongoā)

Research has started to investigate the possibility of using traditional Māori medicines (rongoā) to improve kauri and kauri forest health and reduce the impact of kauri dieback.

The first stage of the research has recommended a number of rongoā for field trials. Planning is underway to incorporate these rongoā into existing projects.

This is one of the first ever studies into using traditional Māori medicines to improve native forest health in Aotearoa New Zealand.

Phosphite Trials

Five years of looking at the efficiency of phosphite injections into infected juvenile kauri is complete. The results are currently being reviewed and will be covered in a future edition of KauriKonnnect.



Phosphite injections. Photo by I. Horner 2017.

Trials involving larger phosphite sprays on lesions on diseased trunks and more mature diseased trees are continuing and will be completed in 2019 and 2021 respectively.

A feasibility study to find out whether applying a phosphite barrier around kauri trees would reduce the spread and impact of kauri dieback concluded it was not possible to start a research programme because of the high cost and uncertainty of success.

Another two-year project using natural products and biological control agents to control the kauri dieback pathogen has been completed and the final report on the outcomes is being reviewed.

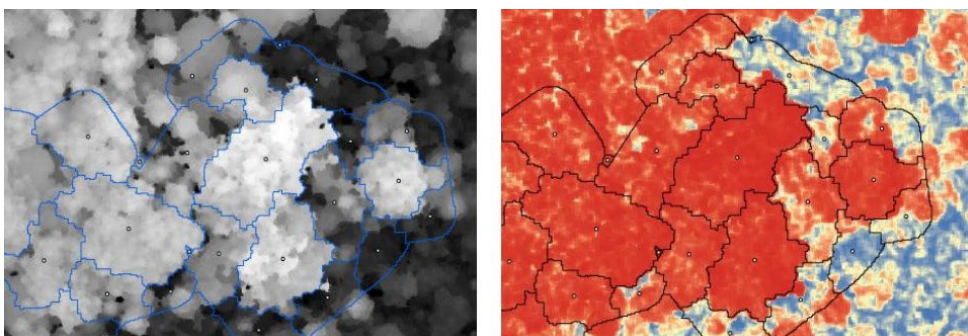
Surveillance and detection

A relatively cost-effective way of using remote sensing tools to detect kauri trees and the dieback disease is progressing with the collection of field data completed.

Assessment is well underway, and if this technique works it will aid in the early detection of potentially infected trees. The project is expected to be completed in November next year.

A report on the role historic forestry operations have played in the introduction and spread of kauri dieback is complete and will be released through the Kauri Dieback Programme's website soon.

A pilot study to introduce a cultural health indicator framework has been completed. The use of Māori knowledge – mātāuranga – has been used for freshwater and coastal management but this will be the first time it is used in a forest ecosystem.



Kauri remote sensing imagery. Photo by J Meiforth 2017.

A three to five-year monitoring period will determine how to use cultural indicators to measure the health of kauri forests, the disease status of an area, as well as identifying trees which show greater resilience to the disease.

Support tools

The database that includes information showing where kauri are located, their level of abundance and maturity and the ecosystem they are in, will be sent to programme partners for testing early next year.

Information that contributed to the type of human intervention in the past – for example, logging, plantations and nurseries – and the risk that activity may increase the spread of the disease by, will also be included.

Based on the feedback from programme partners the database will be updated with a final version released in 2018.

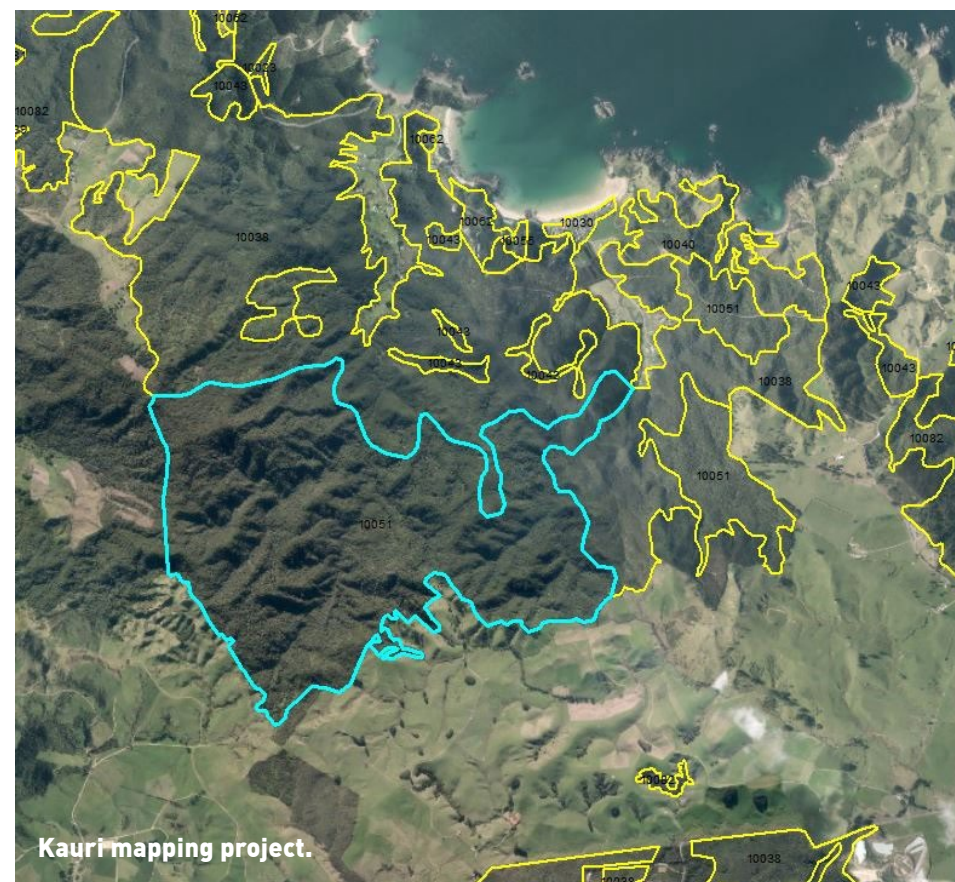
Future direction

A six-year collaborative research programme is looking to address the threat of disease to New Zealand's agriculture, horticulture and natural and urban forests.

The Healthy Trees, Healthy Future Programme has a large component looking at the genetic resistance of kauri to the pathogen that cause kauri dieback. The research programme is now more than half complete and a panel of international scientists is reviewing progress.

A new research project has started to look at the use of temperature to kill the pathogen in soil, potting mix and kauri seedlings.

A plan and roadmap that will outline the strategic direction of the science for the next seven years is a priority project that is being worked on this year.



Kauri mapping project.

For more information on Kauri Dieback research contact travis.ashcroft@mpi.govt.nz.



FAST FACTS

Kauri are among the world's mightiest trees, growing to over 50 metres tall, with trunk girths up to 16 metres, and living for over 2000 years.

The Kauri Dieback Programme thanks the following partners for their support

If you'd like to help spread the word about kauri dieback to your customers, staff and networks then please contact Ian Mitchell on **029 894 0773** or email **ian.mitchell2@mpi.govt.nz**.

Coopers Creek

Coopers Creek 'Lone Kauri' brand is an iconic Kiwi wine that has lent its support to the Kauri Dieback Programme. In an innovative messaging alliance, every Lone Kauri bottle helps raise awareness of kauri dieback and what we can all do to stop its spread. They are distributed throughout the Upper North Island and into Asian markets. We feature on their website and Facebook pages and promotional material at tastings, events and point of sale is also helping to spread the word. Cheers Coopers Creek!



Soar Print

As an environmentally sustainable printer, Soar Print are putting their money where their mouth is by providing a generous printing sponsorship to the Kauri Dieback Programme. We're proud to join their portfolio of community programmes which help good things happen.



Bivouac

Thanks Bivouac for getting the kauri dieback message to all your intrepid outdoorsy customers on your Facebook page. We really appreciate you letting us use your communication channels to raise awareness and encourage kauri-safe behaviours in the forest.



SHARE THE NEWS. Got a story to share on kauri dieback? Spread the word in KauriKconnect. Contact **lain.murray@mpi.govt.nz** to pass on any news, updates or articles and photos. If we all contribute we'll make this newsletter even more relevant and interesting!



Kauri dieback is killing our forests



It can be spread
with just a
pinhead of soil.

WWW.KAURIDIEBACK.CO.NZ

TĀNGATA WHENUA | MINISTRY FOR PRIMARY INDUSTRIES | DEPARTMENT OF
CONSERVATION | NORTHLAND REGIONAL COUNCIL | AUCKLAND COUNCIL
WAIKATO REGIONAL COUNCIL | BAY OF PLENTY REGIONAL COUNCIL



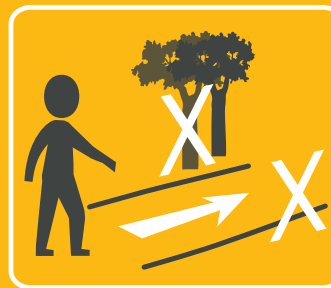
KEEP KAURI STANDING
STOP KAURI DIEBACK DISEASE SPREADING KIA TOITU HE KAURI



**1 Clean ALL soil off your
footwear and other gear
EVERY TIME you ENTER or
LEAVE a forest.**



**2 Use disinfectant only
after you have removed
all soil.**



**Stay on track and off
kauri roots.**