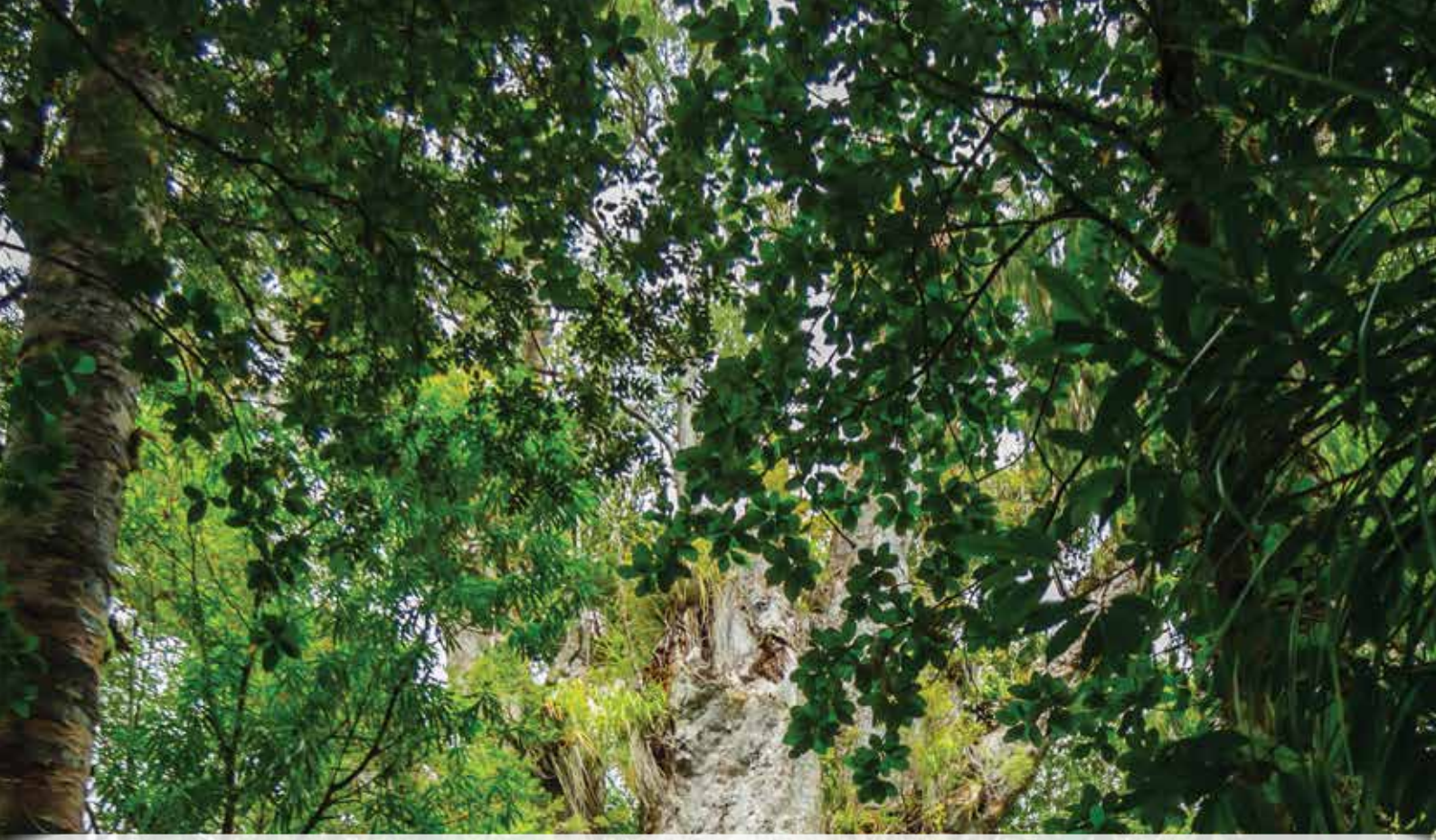

KAURI DIEBACK PROGRAMME

Annual Operating Report for the 2016/17 Financial Year

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

Disclaimer

The information in this publication represents the collective view of the Kauri Dieback Programme. While every effort has been made to ensure the information in this publication is accurate, the Kauri Dieback Programme does not accept any responsibility or liability for error of fact, omission, interpretation or opinion that may be present nor for the consequences of any decisions based on this information. Any view or opinion expressed does not necessarily represent the individual views of any of the members of the Kauri Dieback Programme.

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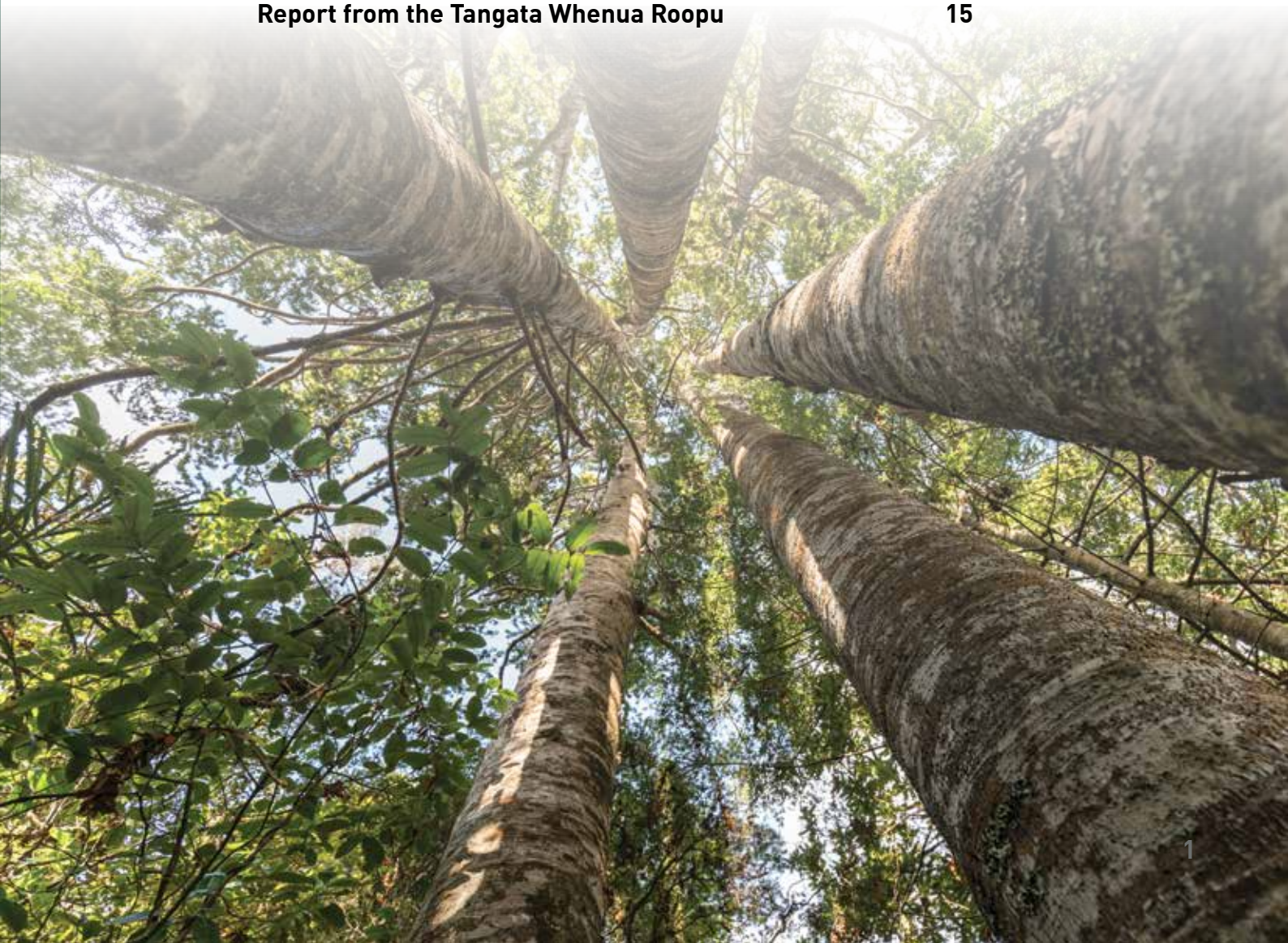


Foreword

This Annual Report provides an opportunity to look back on what the Kauri Dieback Programme has achieved over the past 12 months – and to look ahead on what needs to happen over the next year, and beyond.

Public awareness of Kauri Dieback disease is the highest it has ever been, increasing 100 percent in the last six years. Our challenge now is to convert this awareness into behaviour change, to ensure every visitor who enters or leaves areas where kauri is present, follows prescribed hygiene practices such as thoroughly cleaning footwear.

Media attention has contributed to the increase in awareness. In particular, Auckland Council's Waitākere Ranges Report hit the media spotlight. The report reinforces that kauri dieback is a pernicious disease and we must continue working together to combat it. We wonder what the state of the Waitākere Ranges would have been without the Kauri Dieback Programme, along with the efforts of hundreds of dedicated people over many years.

One of our priorities in the coming year is to review the Programme's 10-Year Strategy. Three years have passed since the strategy was last reviewed, so it is timely that we look at it again it to ensure it is still fit for purpose and working to achieve ongoing success.

The Waitākere Report, together with other appropriate sources of information will help inform the Strategy review, shaping its future direction. Programme focus and activity needs to be dynamic, constantly seeking to learn and improve as it continues.

Along with behaviour change, scientific research remains key to managing and inhibiting this disease. Work has continued apace on how we plan, prioritise, implement and review both Western science and mātauranga Māori; improving our understanding of disease distribution and building or improving our tools for managing the disease.

A range of practical tools are meanwhile coming on-stream. A Geographic Information System (GIS) platform, for example, will soon provide location information to allow land managers to define where the disease is, and is not, and to help with decision making on the ground. This geodatabase will show where kauri is located, provide information on its abundance, maturity and ecosystem type, as well as anthropogenic disturbance to inform vector risk. The platform should go live in 2018.

The Programme could not have achieved what it has over the past year without the support of partners. Here we acknowledge the Ministry for Primary Industries (MPI), tangata whenua (via the Tangata Whenua Roopu), Department of Conservation (DOC), Waikato Regional Council (WRC), Northland Regional Council (NRC), Bay of Plenty Regional Council (BOPRC), and Auckland Council (AC). We also acknowledge the many supporting community groups and individuals.

I would also like to acknowledge the generous support of the Tindall and Aotearoa Foundations. Their committed contributions of a total of $480,000 over the next three years will help protect kauri on private land and assist communities to protect their trees.

To all who have contributed to the Kauri Dieback Programme in any way, thank you.

Roger Smith
Chair, Kauri Dieback Programme

Introduction

Kauri are a beloved tree species with a defining place in New Zealand's culture, history, landscapes and northern ecosystems. They have helped shape the character and function of forests, taonga tuku iho of the Māori ancestral spiritual world, and are of significant cultural importance to all New Zealanders.

Historically these trees have been used for commercial harvesting. Land clearance means we are left with only a small fraction of the original forest. All remaining kauri are now under threat from a disease that kills most, if not all, the trees it infects.

The trees are at risk from a disease called kauri dieback. This disease is caused by a fungus-like pathogen called *Phytophthora agathidicida* which infects their roots and damages the tissues that carry important nutrients and water. It is suspected that this disease has been killing kauri since the 1950s, but only in 2009 were scientists able to identify the pathogen and its role in causing kauri dieback.

The pathogen kills kauri of all sizes, from the smallest seedlings to the mightiest of forest giants. There is no evidence of any natural resistance to the disease, which means that, in time, practically all kauri could succumb to it.

Once the disease was recognised, it became obvious that resources, expertise and decision-making would have to be shared if kauri were to be saved, and that the wider community was crucial to that happening.

In 2009, the Kauri Dieback Programme was launched. The initiative brought together tangata whenua from areas with naturally occurring kauri, together with partner agencies MPI, DOC, Auckland Council and the Northland, Waikato and Bay of Plenty Regional Councils.

Since 2014, when the Programme's 10-year strategy was developed, the focus has been on four main areas of work.

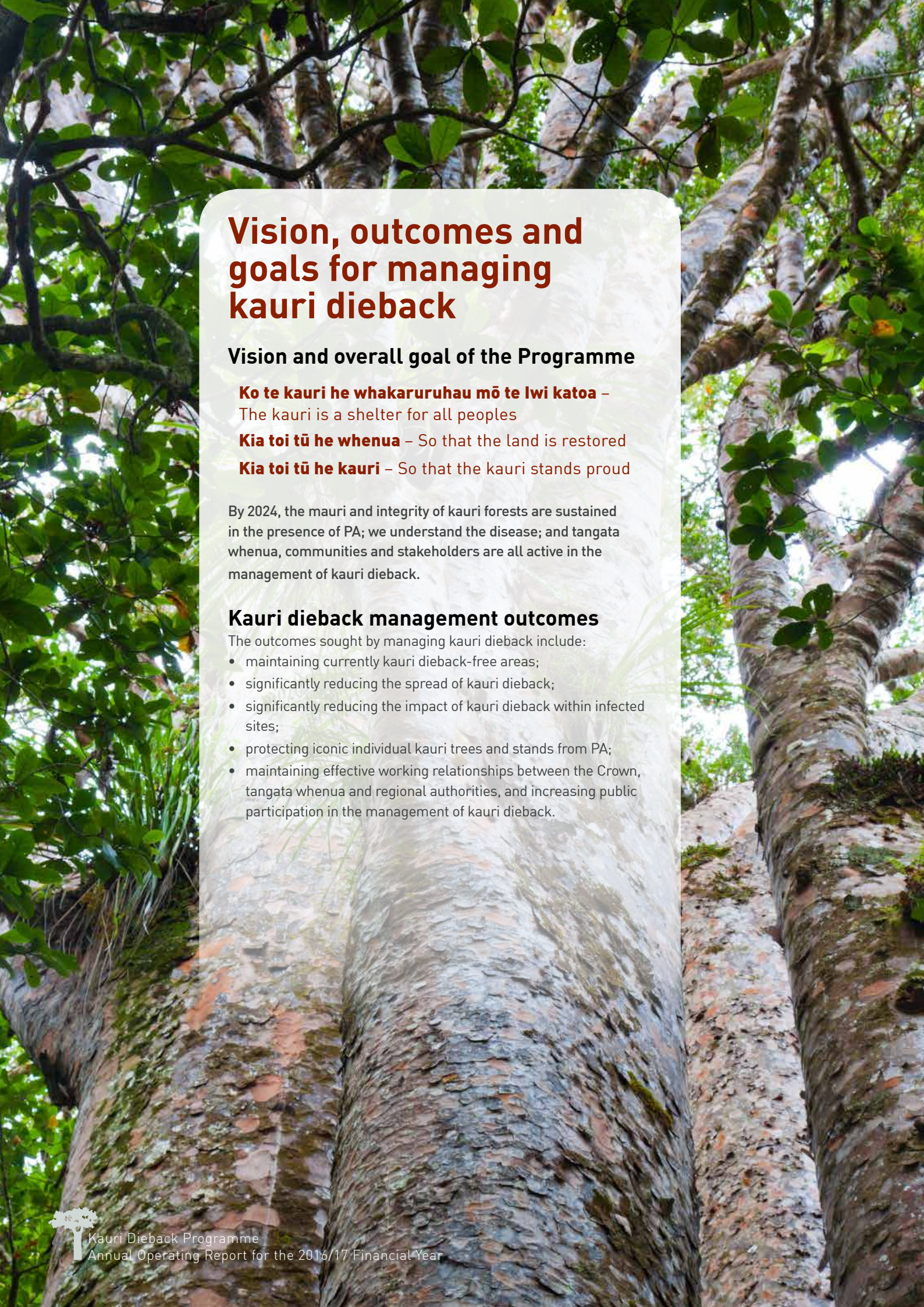
- Delivering Effective Operations: ensuring that resources are targeted at the right scale (whether whole landscapes, forests or stands) to the right sites (regardless of whether they are privately or publicly owned) and that the most effective mix of interventions is utilised (given the local context).
- Building Knowledge and Tools: to better manage the disease and its impacts.
- Engaging and Enabling People and Communities: central and local government can't manage the disease alone. Communities must help prevent the spread of kauri dieback.
- Effectively Managing the Programme: maintaining a culture focused on continual improvement and collaboration.

Managing the disease has involved:

- establishing programme management structures and systems
- conducting research into the disease and management tools
- conducting surveillance to determine the distribution of the disease
- encouraging people to clean their footwear, equipment and vehicles to avoid spreading *Phytophthora agathidicida*
- controlling animals that could spread *Phytophthora agathidicida*
- reducing the risk of spreading *Phytophthora agathidicida* along high-use tracks by installing boardwalks, hygiene stations and improving drainage
- closing or relocating lower-priority tracks.

Our overall goal for the Programme is that by 2024, the mauri (life force) and integrity of kauri forests are sustained in the presence of *Phytophthora agathidicida*, we understand the disease, and tangata whenua, communities and stakeholders are all active in the management of kauri dieback.

Photo: Toby Ricketts



Vision, outcomes and goals for managing kauri dieback

Vision and overall goal of the Programme

Ko te kauri he whakaruruhau mō te Iwi katoa – The kauri is a shelter for all peoples

Kia toi tū he whenua – So that the land is restored

Kia toi tū he kauri – So that the kauri stands proud

By 2024, the mauri and integrity of kauri forests are sustained in the presence of PA; we understand the disease; and tangata whenua, communities and stakeholders are all active in the management of kauri dieback.

Kauri dieback management outcomes

The outcomes sought by managing kauri dieback include:

- maintaining currently kauri dieback-free areas;
- significantly reducing the spread of kauri dieback;
- significantly reducing the impact of kauri dieback within infected sites;
- protecting iconic individual kauri trees and stands from PA;
- maintaining effective working relationships between the Crown, tangata whenua and regional authorities, and increasing public participation in the management of kauri dieback.

Effectively Managing the Programme

The Programme is based around an operational work plan with a series of specific goals. It seeks to maintain a culture of continual improvement and collaboration. Each year, a set of new challenges arise.

This year, key focus areas identified are:

Exploring alternative mechanisms

A focus of Programme activity has been on exploring alternative mechanisms that better support efficient and effective operation, as well as legal, financial and governance requirements. Part of this depends on the projects developed in the Building Knowledge and Tools section of this document. Other areas of Programme activity include investigating the setting up of a Strategic Advisory Group to endorse priorities for future operational plans.

Lifting and continually improving information standards

The Programme's success depends on providing the right information, in the right format, to the right people at the right time. A comprehensive information management strategy will help ensure all partner agencies are equipped with current data. Mana/tangata whenua, community and industry groups need correct and up to date knowledge and information.

Improving co-ordination with other parties

The management team is committed to good and active communication with all stakeholders, ensuring that the Programme is connecting with the right people at the right time.

Monitoring our progress

The Programme needs to be monitored against goals and outcomes. This is why developing a monitoring framework will help achieve desired outcomes.

Establish and develop strategic relationships of mana whenua with partners in natural kauri rohe

The management team is pleased to note an increase in engagement by mana whenua, through the Tangata Whenua Roopu. Establishing good working links with partners has been key here. The important work of the mana whenua of kauri and kauri forests will continue.

Delivering Effective Operations

The overall aim of the Programme's Operations workstream is to pitch resources at the right level for the problem being tackled. In practice this means directing energy at the highest priority disease sites and deciding on the most effective mix of interventions to suit. This approach seeks to ensure that interventions on private land, including Māori-owned land, are prioritised and that landowners are educated, supported and empowered.

In the 2016/17 financial year, this activity translated into the work described below.

Improving infrastructure

A vital part of the surveillance work carried out as part of the Programme is determining when and where kauri dieback cleaning stations and track upgrades should be installed. The aim here is to reduce the risk of the disease spreading. Humans remain the most important disease vector. Experience shows that mitigating against muddy sections of track greatly reduces the chances of the disease being spread through a track network.

In the last year, prototypes of cleaning stations were installed on four tracks around the North Island. These prototypes differ from the ones currently being used. As a result of this trial, a second generation of cleaning stations based of these prototypes are currently being evaluated. These will be trialled in a busy reserve in Whangarei.

Protecting kauri on private land

This activity involves partnering with landowners to protect or isolate important and/or infected stands of

kauri. Grants from The Aotearoa Foundation and The Tindall Foundation are assisting here.

The work involves fencing trees off, particularly from stock, a well-known vector for the disease. The delicate feeder roots of kauri can grow up to three times the distance between its trunk and the edge of its canopy, making it vital that these areas are protected.

Among the range of other mitigation measures are improvements to privately owned tracks, including the installation of hygiene stations.

The Programme has made contributions to projects at nine separate sites, with approximately 530 hectares being protected to reduce the spread risk from infected kauri. A total of 16km of fencing was installed on six completed sites.

All of these sites have a signed land owner agreement and legal commitment for the life of the fence (ten years). Three have additional Queen Elizabeth II National Trust (QEII) legal commitments. Various amounts of funding were allocated to assist with reducing the spread of the disease.

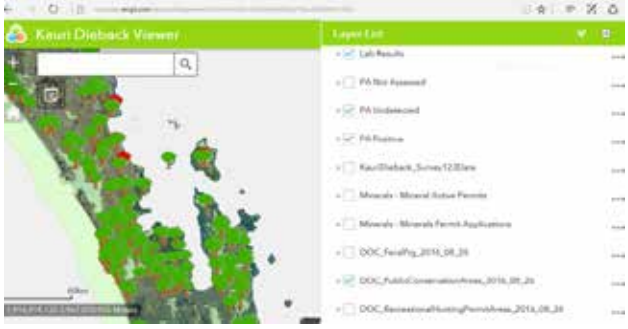
Two of the nine sites were provided with cleaning stations as they did not need fencing. A further site received funding to go towards a track upgrade on a privately owned bush reserve.

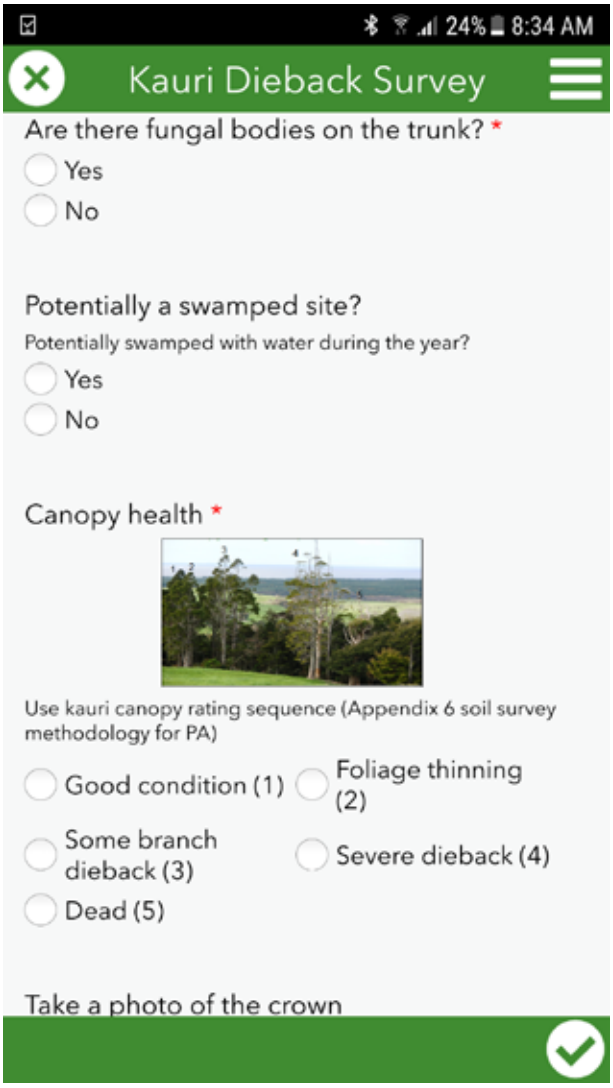
Note that these metrics are based on the entire project for the site, as it is difficult to separate the fund contribution in relation to the other sources of funding that were used to complete the project.

Developing digital technologies to better manage the disease

A software application (app) named **Survey 123** has been used over the past year to develop a bespoke app to record the results of all Programme field inspections.

The app displays photos of infected areas to be uploaded and records lab results. The app was made available for partner agency staff to use in the field. The data collected can be viewed on a digital device





connected to the internet. This displays field data information on a map, along with other useful layers of information to help inform operational planning.

The kauri mapping project outputs will form layers that can be utilised by all ArcGIS users as a kauri geodatabase and used as a base map on the viewer. The map will then be able to be used to better understand where the disease has and has not been detected, and the possible ways in which the disease could be spread.

Field guide for staff

A new soil sampling guide was developed for field staff to help them understand the importance of hygiene when carrying out field work, along with an easy-to-follow guide to taking a sample.

Building Knowledge and Tools

The Programme's Planning and Intelligence workstream is focused on three key areas:

1. developing a framework on planning, prioritising, implementing and reviewing western science and mātauranga Māori
2. improving understanding of disease distribution
3. building or improving tools for managing the disease.

The following projects were initiated during the 2016/17 financial year or are ongoing projects initiated from previous years.

Decision-support tools

Kauri Mapping Project

A geodatabase, showing the natural locations of kauri as well as information on its abundance, maturity, ecosystem type as well as anthropogenic disturbance to inform vector risk, is nearing completion.

The database will be tested by partner agencies and the feedback will help refine the final product which is expected to go live in 2018.

Strategic Mapping

A workshop was held to establish how best to spatially define areas with the disease and those without it. As a result of the workshop and taking into consideration the views of partner agencies, it has been decided that a Geographic Information Systems (GIS) platform will be built with spatial information provided. This will allow land managers to help define where the disease is and is not, and to help with decision making on the ground. This could lead to further research opportunities around spatial and risk decision making.

Iconic Tree Project

Protecting iconic individual trees and stands from kauri dieback remains a key Programme goal. This activity involves identifying a list of iconic trees from which monitoring and protection measures can be implemented.

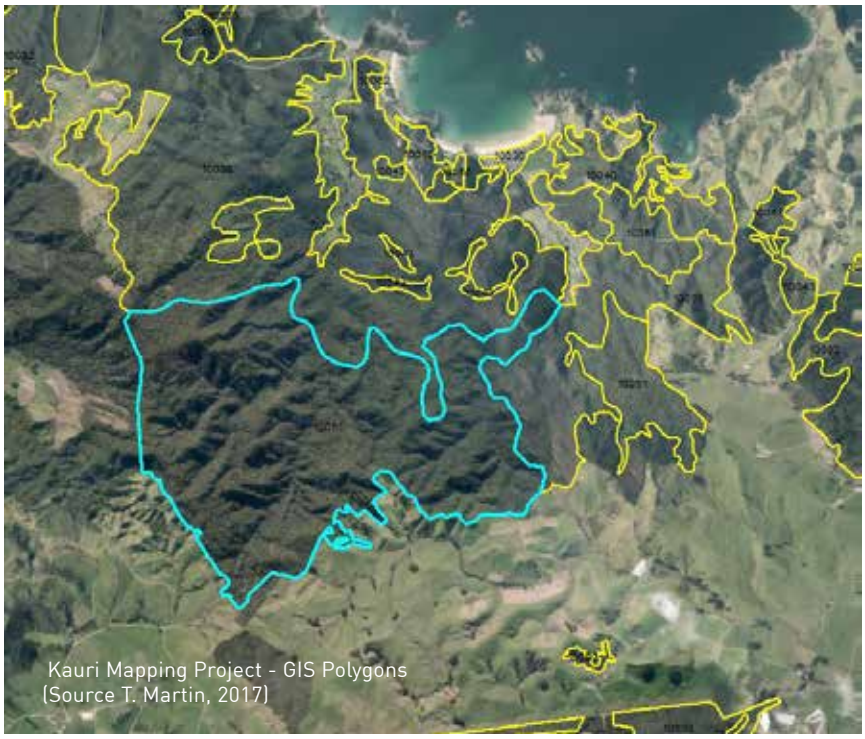
Control and management tools

Possible alternative treatments

This project determines (through laboratory trials) the effectiveness of bio-control products to inhibit kauri dieback. The trials have been completed and the management team awaits the outcome of the research.

Genetic research – Healthy Trees, Healthy Future

The Healthy Trees, Healthy Future Programme is a six-year research initiative aimed at finding management tools for three different *Phytophthora* species. A major component is discovering whether kauri have any genetic resistance to *Phytophthora agathidicida*. Progress is being reviewed by an independent panel of international scientists to provide opinion/guidance on the proposed direction and outcomes of research.



Kauri Mapping Project - GIS Polygons
(Source T. Martin, 2017)

Phosphite projects

The chemical phosphite is used overseas and here in New Zealand to slow the spread of *Phytophthora* on a wide range of plant species and to reduce its impacts.

The chemical works by boosting the plant's own natural

Tree injection. Source: I. Horner, 2017

defences, thereby allowing susceptible kauri to fight the pathogen. It does not kill the pathogen directly hence it is not a cure.

A number of phosphite research projects were initiated this year or carried over from previous years.

Ongoing ricker injections

Trials were aimed at determining the efficacy of phosphite trunk injections at slowing the onset of the disease in ricker (juvenile) trees. Research has been completed and results will be reviewed in late-2017.

Large tree treatments

As with the ricker trials, the large tree phosphite trials were designed to establish the possible treatment rates for large trees and the effect of those injections on the trees' symptomology. These trials are expected to continue until 2021. Monitoring and assessment is ongoing at four sites in Trounson Kauri Park, at the Cascades (in the Waitākere Ranges) and near Kerikeri.

Trunk sprays and low injection rates

This research was commissioned to determine the efficacy of using directly applied phosphite trunk spray and to investigate the effects of low injection rates on toxicity and efficacy. Work to date has shown a reduction in lesion activity and spread, although some lesions were still active. This activity will be completed in May 2019.

Phosphite barriers

Research was conducted to assess the feasibility of using phosphite as a barrier treatment to contain *Phytophthora agathidicida*. A review of the feasibility report determined that applying phosphite as a barrier-type treatment was not a workable option at this stage. This was due to the potential high costs involved, long duration and the number of uncertainties and risks associated with undertaking further research.

Toxicity and impact

This activity sought to assess whether environmental factors influenced the uptake of phosphite administered via trunk injections as well as any negative effects on the tree from injections. The first stage of the work involved injecting water instead of phosphite. Research found that seasonal influences were unlikely to impact uptake. Observations on environmental impacts will continue until August 2018. The second stage, involving phosphite injections, will commence in 2017/2018.

Twig assay refinement research

Work here focused on determining when trees need to be retreated with phosphite after the initial treatment. Results are currently being reviewed.

Cultural Health Indicators

A pilot study was initiated to test the principles and practicalities of using the Kauri Cultural Health Indicator (CHI) monitoring framework as a measure of current kauri ngāhere mauri (forest health). A final report was produced and recommendations will be considered before the next phase of Cultural Health Indicators begins. The work involves monitoring the effectiveness of the indicators themselves.

Rongoā (traditional medicine practices) project

This activity sought to establish the usefulness of mātauranga Māori rongoā to improve the health of either individual kauri or kauri ngahere mauri and as a means to fight kauri dieback. Field trials are underway, with other projects being explored to incorporate rongoā.

Origins of the disease

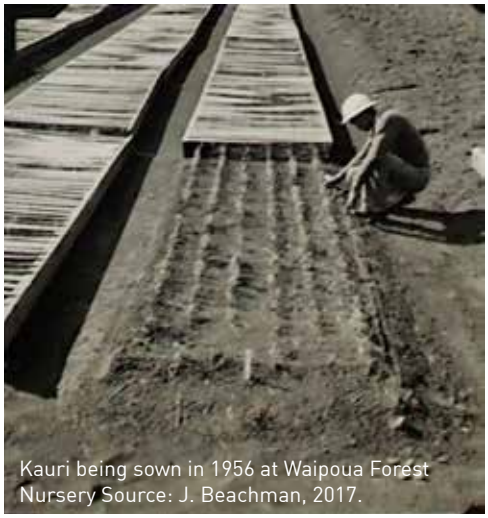
Further research was commissioned to investigate the likely source of *Phytophthora agathidicida*. Previous research has indicated the pathogen may have

originated from overseas. The work involves testing soil samples taken from beneath trees in New Caledonia that are related to kauri and that were showing similar symptoms to kauri dieback. Testing confirmed that the pathogen causing the symptoms closely related to kauri are not *P. agathidicida*, but are closely related.

Detection

Aerial disease surveillance

Establishing where the disease is and is not present remains a key priority. During the 2016/17 financial year, surveillance flights covered more than 400,000 hectares, with the aim of determining the locations of kauri and their health, as well as any sites of concern in need of follow up ground- truthing and site intervention. Areas in Northland included the Waipoua, Waima and Marlborough Forests areas, along with locations in Mangamuka, Kawakawa and Omapere. Surveillance flights across the Waikato region included the



Kauri being sown in 1956 at Waipoua Forest Nursery Source: J. Beachman, 2017.

Coromandel/Whangapoua areas and the coastal strip from Tairua to Tauranga, including the northern Kaimai ranges. Waikato Regional Council was also funded to complete additional priority areas within their region.

Historic Forestry Pathways

A study was undertaken to explore the role of past forestry operations in the spread of kauri dieback. Several possible spread pathways were investigated, including kauri nurseries, kauri plantation and harvesting practices, and exotic forestry management. A GIS data layer showing the location of historical plantations, trial plots and seedling nurseries (with associated risk information) has subsequently been produced and will be added to the Kauri Dieback GIS Platform. The report outcomes are being reviewed.

Ground-truthing

All sightings of possibly symptomatic trees must be followed up by soil sampling. This involves taking samples at eight points around a tree, coupled with analysis by independent laboratories. A total of 112 trees were sampled over the past year in Northland and the Waikato. Overall, sampling operations revealed 25 infected trees in Northland on eight separate sites. The sampling found no new detections of the disease in the Waikato/Coromandel regions. A recently-completed ground-truthing operation in Auckland's Waitākere Ranges showed 53 trees or tree zones testing positive.

Waitākere Monitoring

Auckland Council has received Programme funding to monitor disease spread in the Waitākere Ranges Regional Park since 2010. The study's findings indicate that kauri dieback disease has spread, and that mitigation measures have not been successful in containing the disease.

Remote sensing

This activity involves determining whether the use of remote sensing tools (i.e. satellite data and data collected from special sensors mounted on aircraft) can be used to distinguish between kauri and non-kauri trees and also to determine the state of tree health. The collection of data has been completed and the analysis is expected to be completed in November 2018.

Field Spectrometer set-up for remote sensing. Source: J. Meiforth, 2017

The Department of Conservation's Kauri Dieback Recreation Project

DOC represents a key Programme partner agency. The department has initiated a project to stop the spread of kauri dieback on public conservation land. The focus of this work is to stop the movement of contaminated soil by visitors by upgrading tracks, installing cleaning stations and behaviour change initiatives.

DOC has inspected all visitor facilities in kauri forest on public conservation land. This activity has involved 756 kilometres of walking track and 456 individual assets such as carparks, picnic areas and campgrounds. Over the 2016/17 financial year, 38 high priority tracks with a total length of 81 kilometres were upgraded in the Auckland, Aotea Great Barrier Island, Hauraki, Whangarei and Kaitaia districts.

New kauri dieback cleaning systems on behalf of partner agencies have also been developed. Four prototype stations have been built, installed and evaluated. The sites were specifically chosen to enable evaluation of different user groups. The stations were very successful, with the percentage of visitors cleaning their footwear increasing to 97%.

Using the evaluation results and feedback from operations staff, a new cleaning station was built and installed at Tane Mahuta. The site receives 150,000 visitors a year who often arrive in large numbers. The new station enables four visitors to clean simultaneously and uses a new foot spray mechanism which is easier to use and significantly reduces the volume of liquid used.

With funding from DOC, local iwi Te Roroa have ambassadors based at Tane Mahuta. The primary role of the ambassadors is to ensure that visitors use the cleaning station when entering and exiting the site. They also provide information about kauri dieback and share Te Roroa knowledge and stories of Waipoua and Tane Mahuta.

The Waipoua Tactical Plan has been developed to reduce the risk of disease being spread in the Waipoua Kauri Dieback Management Area (defined as the rohe of the iwi Te Roroa). The partners are DOC, the Northland Regional Council and Te Roroa Mana Whenua Trust. Te Roroa have been contracted to implement the plan with funding from DOC and the Council.

The first stage of a pig control programme was completed over 7000ha in Waipoua Forest. It aims to reduce pig numbers to levels at which no rooting beneath kauri is occurring. Forest health monitoring was completed before and after the control operations.

Engaging and Enabling People and Communities

Work at the community level can engage and enable more New Zealanders to understand kauri dieback, and what actions they can take to help prevent its spread. This can help ensure the Programme accesses the passion, commitment, local knowledge and skills of the public and tangata whenua in helping to keep kauri standing. Ongoing work with community groups in Kaipara, Northland and on Great Barrier Island has been positive. This activity engages with established community leaders who work with local kura, kohanga, schools and other community groups (including hunting clubs), to educate them on kauri dieback and forest hygiene.

Getting good, practical information to the tangata/mana whenua, communities and land owners is vital to protecting trees. To get all New Zealanders talking, the message needs to be communicated as widely as possible. New information becoming available has the potential to ignite a behavioural change, improving the frequency and quality of compliance, and getting more people talking about kauri dieback.

Social media

Digital platforms such as Facebook have a vital role to play in spreading the word about kauri disease to stakeholders. The Programme's dedicated Facebook page keeps stakeholders in the loop about any new and upcoming events and changes. The page continues to grow, with a total of 2,500 followers by late 2017.

Kauri dieback Website

The rebuilt **Kauri Konnect** website (**www.kauridieback.co.nz**) was launched. The site keeps communities informed and updated about continuing Programme activity, along with successes achieved. Online advertisements will target the range of user groups involved in activities that take them near kauri trees.

Best practice guides

Work produced through the Programme's science and operations teams has resulted in a suite of readily-accessible best practice guides. The range of guidelines becoming available include quarry operations, vehicle and machinery hygiene, nurseries, and land disturbance/earthworks. Guidelines for tree removal and pruning are being reviewed.

Risk analysis of different vector groups

A risk analysis assessment of the range of groups coming into contact with kauri has been developed, ranking the vector groups according to their risk profile. This study identified that a targeted approach is required to educate and support the groups. Additional training will assist in changing behaviour, ultimately helping reduce disease spread.

Aligning the Programme's work with the principles of behaviour change

Good progress has been made in enhancing the Programme's overall messaging and information provided. Use of external and social media content, advertising, website content, modified signage and collateral have resulted in targeted improvements with compliance and compliance-advocacy. All signage and collateral is being updated with new messaging/ pictograms.

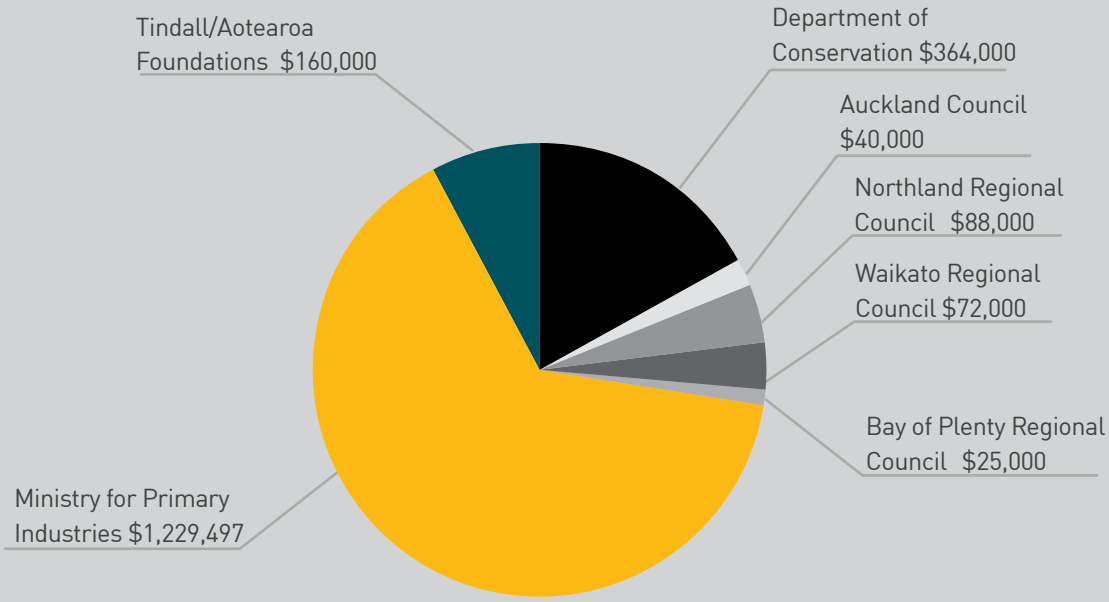
The Tindall Foundation and the Aotearoa Foundation Regional Support grants

The Tindall and Aotearoa Foundations have committed to a generous $480,000 worth of funding over three years to help protect kauri on private land, and to help communities protect their trees. The Foundations have also contributed to 16km of fencing on multiple sites to support private land owners. The following three community groups have also been assisted:

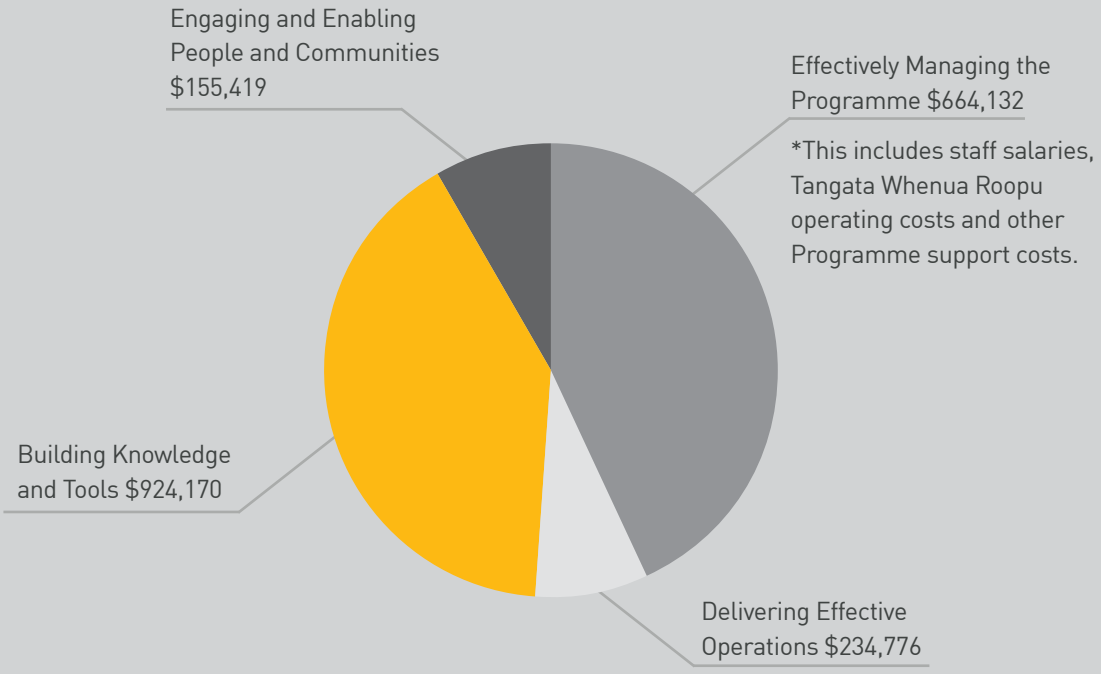
- **The Chinese Conservation Education Trust** promotes kauri protection and reducing spread of the disease. It has been active in organising field trips, festival stalls, has published online blogs and organised an art competition. The Trust has worked with visitors from China and Chinese New Zealanders to support them in cleaning footwear and equipment before and after visiting areas with kauri. The Trust only used its funding for engagement, with members volunteering for other work. Members engaged with a total of 1,425 people during the course of the year.
- **Te Runanga O Te Rarawa** has played an important role in working within their rohe to ensure their whanau, hapu and vistors are educated on kauri dieback. Representatives of the iwi have been involved in educational activity with such key groups as farmers, hunters and school children. Additionally, they have presented information at various events around their region.
- **Te Runanga O Ngati Whatua** has recently joined the effort to keep kauri standing. This is their first year of receiving funding. The iwi is mainly focused is developing a traditional and sustainable tribal response to kauri dieback.

Expenditure for the 2016/17 Financial Year

Revenue



Expenditure*



* Does not include partner agencies' operational spend.

Key Work 2017/18

Effectively managing the Programme

The Programme will continue to better the standards and make general improvements. Priority areas include lifting standards and continually improving the work underway by focusing on the range of projects identified in building knowledge and tools.

Co-ordination with other parties will be prioritised to ensure more effective collaboration.

An additional priority will be a monitoring framework and evaluation plan to track the Programme against outcomes and goals. The management team will work to encourage more mana whenua engagement opportunities through the Tangata Whenua Roopu and/or Partner strategic relationships.

Delivering Effective Operations

The land management agencies will prioritise and complete ground surveys from aerial results in parts of Northland and the Waikato, on both public and private land.

Aerial surveys will continue to complete remaining areas of Northland, the Rodney area in Auckland and Aotea (Great Barrier Island).

Providing best practice guidelines and optimising interventions will be prioritised. There will be continued work with partners to improve the cleaning station design.

Building Knowledge and Tools

The Programme has dedicated a significant proportion of its work to focus on multi-year projects. Many are long-term and will continue over multiple years.

The new projects to be undertaken are:

- The deactivation of oospores using heat will be researched to determine if this is effective in contaminated soil, nursery plants, growing media and wood.
- The alternative host project will look into determining whether non-kauri plant species can be a host to *Phytophthora agathidicida*.
- The Cultural Health Indicator Monitoring Programme will focus on determining whether cultural indicators can be used to measure the state of kauri health and identify resilient kauri trees.

Engaging and Enabling People and Communities

The Programme will continue to work with various user groups and conduct activities to raise awareness to target behaviour change.

Some of the new projects to be undertaken are:

- Updating the best practice guides for all key groups and activities, and reviewing communication plans. This will help in communicating consistently and proactively.
- Developing a biosecurity hygiene training framework to target people working around natural environments, aimed at increasing hygiene practices.

There will be further work to build and strengthen mana whenua engagement, capacity and capability among iwi kaitiaki.

Report from the Tangata Whenua Roopu

This is year seven of the Kauri Dieback Programme – and our continuing commitment to it. On reflection, our decision to work with Crown and local government on a multi-region, multi-agency response, was ambitious. At the beginning of this journey, many of us working within the Tangata Whenua Roopu (the Roopu) were hesitant to engage, yet hopeful that we'd be able to work to find a solution to save our beloved kauri from dieback.

When kauri dieback was discovered, Māori, alongside agencies in the Programme, had an equal level of knowledge about the disease. Assured that kaitiaki were the best placed to respond in their own forests, and that kaitiaki and communities working together were less likely to see spread of the disease, Māori engaged in the joint agency approach.

We have been consistent in ensuring that our cultural authority as kaitiaki of kauri is recognised in the Programme, and the importance of building the capability of our kaitiaki to understand and respond to kauri dieback. The Roopu also maintained that mātauranga Māori solutions should be incorporated into the Programme. This is premised by our intimate understanding of our kauri and our forests and has been supported by the Programme partners.

We have made some progress. Building capability and exploring mātauranga Māori as a solution to Kauri Dieback is embedded in the current Programme Strategy. We are pleased that the mātauranga Māori and cultural health indicator projects prioritised in previous work-plans, will be progressed and will provide solutions which may complement the science undertaken by the Programme. We expect that these projects will also increase awareness and engagement of local mana whenua and communities.

In closing, we would like to acknowledge the dedicated people who have been working with our various communities outside of the Programme, and our tangata whenua members of the Roopu. In particular, Will Ngakuru, who has been with the Roopu since its inception. He has been an active member of the Planning and Intelligence workstream, and has held the Te Roroa seat on Governance. Will's creativity and passion, underpinned by his ability to articulate the 'value' of kauri as our taonga, has informed many decisions made in Roopu and Programme forums. Mana whenua to Waipoua (forest) and Tane Mahuta, Te Roroa are tasked with managing the largest population of tourists in any one forest. Will has been invested in progressing work that saves our kauri. He has now resigned from the Planning and Intelligence workstreams and Governance role to focus on mahi with his hapu and on spending time with his family.

Charmaine (Char) Clark took up her Engagement and Behaviour Change role in 2015. The Roopu would like to extend our thanks to her for her work on this workstream. Char ensured that tangata whenua issues have been considered in the development of communication and engagement strategies. This important work will be realised in this year's operational plan. Both Will and Char will continue to inform the Programme through their contribution as Roopu members.

The Roopu continues with their commitment to informing the strategic decisions developed by the partners that enable mana whenua and their communities to stop the spread of kauri dieback. We see this as fundamental, to our ngahere, our people, our culture, in this and future generations.

KAURI DIEBACK PROGRAMME

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KEEP KAURI STANDING

STOP KAURI DIEBACK DISEASE SPREADING

KIA TOITU HE KAURI