



Arborea



Spring 2018

Newsletter of **The Tree Council**
Tiakina Rākau • est 1986



Mels and the McEldowney macrocarpa. Photo by Noel Jamieson

McEldowney Madness

Our Secretary Mels Barton was horrified to see Treescape trucks congregating at the bottom of her road recently planning to remove the historic macrocarpa tree she got added to the Schedule of Notable Trees in 2012.

Marching down to confront the contractors, which comprised ten staff, two trucks, a crane and traffic control, she demanded to see the resource consent to remove the tree, which they were unable to provide. Putting herself between the tree and the contractors she refused to move until they proved they had permission to remove the tree. She was joined by other locals and knowing it was a scheduled tree was confident that they did not have consent because there had been no public notification of an application to remove the tree.

The site manager went off to phone the Council and soon one of the Council arborists called Mels to assure her that the contractors would be leaving and nothing would happen to the tree without a proper process. Battle won, tragedy avoided, but what if she hadn't been home that morning?

continued overleaf...

Message from Sean Freeman

Despite the optimism of having a new Labour, Greens and New Zealand First coalition government 2018 has brought just as many challenges to all of us working for better environmental outcomes as previous years. The ever-increasing pressure and competition for space in an intensifying Auckland means that fighting to retain and protect our urban forest has not got any easier.

In spite of our current weakened tree protection rules and the relentless push to construct denser urban housing I think that there is just cause for optimism in the potential to improve the rules and their enforcement at both a national and regional level.

I invite all our members and supporters to come to our AGM.

The Tree Council is still looking for someone with account keeping skills to join our committee in the role of treasurer.

If you want to help improve the protection of Auckland's urban trees then get in touch with us. We meet once a month at the Grey Lynn Community Centre.

Annual General Meeting

When: Thursday 11th October, 7pm

Where: Fickling Centre
546 Mt Albert Rd



After complaining to elected representatives about the incident The Tree Council received an apology and admission of a “mistake” by Council in not identifying the tree as scheduled. However the arborist also claimed that it was not in the Significant Ecological Area (it is) and it was obvious that they had not checked even the Unitary Plan map for the area which clearly indicates both the SEA and the notable tree. Council have promised that they will endeavour to retain the tree as long as possible and that any future work will be publicly notified.

The tree is not in good health and has been declining for years due to neglect. It is hard up against the road and regularly gets gravel from a nearby drain dumped on its roots, along with glyphosate spraying of the berm. Some TLC and mulch would definitely help. As would having a label on the tree to say that it is a scheduled heritage item and protected. The Tree Council has been advocating for labelling of scheduled trees for some considerable time. It looks as if this incident may result in progress on this proposal at last.

However the bigger issue here is not the “mistake” that was made in failing to identify its scheduled status but the apparent lack of process to assess proposals for removal of street trees being made by Auckland Transport and their contractor Treescape (who are 50% owned by Vector). All trees on public land retain general tree protection under

the RMA and require resource consent to be removed. Whether notified or not this demands an auditable and defensible process of assessment and decision making. It would appear that this is not happening for our street trees if this example is typical, and we believe that it is. Failing to identify that this tree is either in an SEA or scheduled is an indication that even the most basic assessment of the tree is not happening within Council. Justification to remove would appear to be tenuous and we have requested supply of the consent application and any associated communications relating to this removal so that we can see exactly what kind of assessment has taken place in this case.

We have also requested Council provide under the Local Government Official Information Act information on all tree consents applied for from 1 July 2015 to now so that we can see if the rate of protected tree removals has increased since our last LGOIMA request for the same information in June 2015.

We are deeply concerned that private contractors are driving a street tree removal programme across the region that is not justified and is being paid for by ratepayers and enabled by Council staff with little process or oversight. This is not the kind of care of our natural public assets that we expect from Auckland Council and we intend to expose what it going on and stop it.

Mels Barton



News in brief

The Sad Case of the Blockhouse Bay Pines

You will no doubt recall the protracted battle to save the scheduled Monterey Pines in Gittos Domain, Blockhouse Bay which was led by The Tree Council's Board Member Suzanne Caron back in 2016.

Well, we have bad news. Some of the pines failed during the unprecedented winds of the April 2018 storm and Auckland Council have decided that is reason enough to remove the rest of them as they are concerned about their long term integrity and safety.

The consent application to remove all the remaining pines has been publicly notified and submissions close on 28 September. We encourage everyone with an interest to make a submission.

A plan to replant the Gittos Domain with natives is part of the consent proposal and we consider that the nature and form of the replacement planting should be determined by the local community, guided by expert advice on which trees are likely to thrive in this exposed location.

Suzanne Caron and Mels Barton



Gittos Domain. Photo by Suzanne Caron

Tree Week is Coming!

This year has flown past and Tree Week is fast approaching again, taking place from 6 to 14 October. We will be hosting two events during Tree Week, which also coincides with the Auckland Heritage Festival and so our events are advertised in the festival brochure.



The first and most important is our AGM on Thursday 11 October, 7pm in the Lynfield Room at the Fickling Centre, 536 Mt Albert Road, Three Kings. We hope you can join us as we have a very special guest

speaker Associate Professor in Ecology Margaret Stanley from the School of Biological Sciences, The University of Auckland.

Margaret has broad ecological interests and her research group has covered a menagerie of organisms, from invasive ants, weeds and feral pigs, to lizards, urban trees and birds. Her applied research aims to understand and mitigate the impacts of people on biodiversity. The particular impacts Margaret focuses on are invasive species and urban development. Her lecture will focus on Auckland's Natural Heritage: What benefits do we get from urban trees?

As usual we invite you to join us for supper and networking. Please bring cash for your membership and a koha towards the room hire would be very much appreciated. All are welcome. We also welcome new members and anyone interested in joining the Board please contact the Secretary Mels Barton on melsbarton@gmail.com or 021 213 7779.



Government House, Auckland

Our second Tree Week event is a Guided Tour of Government House Gardens. This is a rare opportunity to learn about the unique history and values of some of Auckland's finest trees in their historic setting of Government House on The Tree Council's walking tour led by the Government House Auckland Garden team and Dr Mike Wilcox, author of Auckland's Remarkable Urban Forest. The tour will start at the rear entrance to Government House, entry is through the Savannah St gate (near the entrance to Eden Gardens), which is off Omana Ave. There is no parking onsite and parking is limited in this area. Do not park at the Eden Gardens parking signs.

Bookings – SOLD OUT

This Guided Walk has proved very popular and has already sold out. A number of people are on a waiting list and will be contacted if there are any cancellations.

Waikowhai Road, Waikowhai

The Tree Council recently attended a Resource Consent Hearing for an application to subdivide the section at 2 Waikowhai Rd Waikowhai, the details of this application highlights some of the most pressing concerns facing Aucklanders today. What is more important the number of dwellings that you can fit onto a site, or the quality of the environment in which residents are going to have to live?

Currently on the section at 2 Waikowhai Road there is one house located on top of a ridgeline with evidence of past vegetation clearing around the house and along the top of the flattened ridgeline. The rest of the section approximately 1,134m² is designated as Significant Ecological Area (SEA) in the planning scheme but due to the extent of disturbance is made up of regenerating native bush together with the usual mix of invasive weeds.

The owner of 2 Waikowhai Road applied to Auckland Council to subdivide the section into four new lots and in the process would remove 1,020m² of the SEA retaining only

114m². The owner did express the intention to retain four established trees on the site, a Pohutukawa, A Rimu and two Rewarewa. The Rimu and the two Rewarewa were within the SEA and as such retain some modicum of regulatory protection under the Auckland Unitary Plan.

The Tree Council opposed the application on the basis that in our opinion the four trees could not be adequately protected to ensure their health and stability in the face of very extensive earthworks and in ground service provision all in very close proximity to these trees. The proximity and extent of the planned ground disturbances were a direct consequence of the owner's desire to maximise the number of new dwellings on their section – in other words there was not enough space to build four dwellings along with their services and access driveways and keep the trees.

We were not alone in our opposition to the application there were two other submitters who expressed very similar concerns at the proposed extent of land clearing, earthworks

and number of new lots. Auckland Council through the reporting planning officer also made a recommendation to refuse the application in its current form. It was encouraging that the questions asked of the applicant's team by the independent commissioners indicated that like us, they too could see some serious issues which had not been resolved by the applicant or by their consultants.

Although at the time of writing the decision from the independent commissioners is not known we are very hopeful that this application will be refused.

Yes, Auckland needs more housing and it is inevitable that this will result in greater densities, more dwellings in existing sections at least where permitted by the zoning. However, we should never accept that more housing has to come at the cost of a liveable environment. We need trees in our environment not just along the streets we travel down, not just in the parks but in the spaces around our homes. We need trees and trees need space for healthy stable growth in order to deliver all of those services and benefits that improve the quality of our lives.

Suzanne Caron and Sean Freeman

A Developer's Land Exchange for Part of Margan Reserve, New Lynn

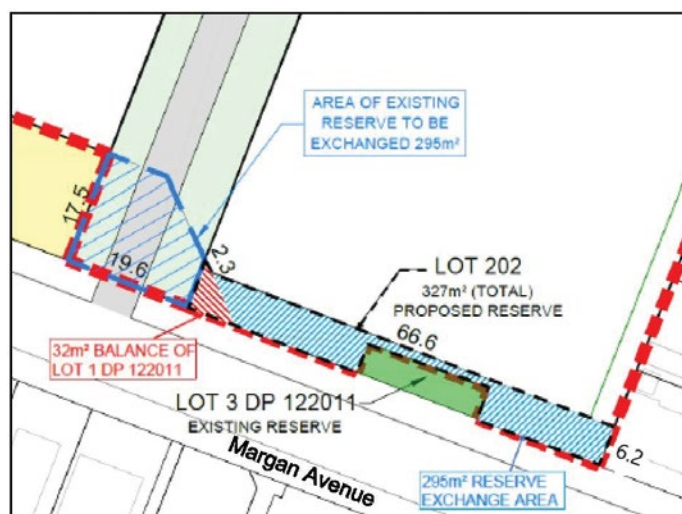
The Tree Council has become involved in the effort to protect the remaining pohutukawa along Margan Avenue, New Lynn. In December 2015, approximately fourteen mature pohutukawa were cut down by Avanda, the developer of an 1800 unit development between Rankin Avenue and Margan Avenue (see photo). These trees formed part of a green belt which extends along Margan Avenue, however, they were within the developer's private land and therefore had no legal protection.

Since then, the remaining pohutukawa, which are growing within the Margan Reserve, have been the subject of a protection campaign (see Facebook: Pohutukawa of Margan Ave). Several more pohutukawa have been considered at risk of removal to facilitate the building of a road or roads through the reserve to service this development.

Plans for these access roads have altered over the intervening two and a half years and the latest option taken by the developer is to apply for an exchange of part of Margan Reserve (large enough for a single road) to swap for a strip of Avanda land along Margan Avenue, which would extend the existing reserve a further 66 metres. However, this strip of exchange land is only 6.2 metres in width and has no redeeming ecological value at all.

An exchange of reserve land is required to undergo a public notification process and this has been supported by the Whau Local Board and the Auckland Council, which approved it for public notification on 14 August 2018, although this has not yet happened.

Once the date for the start of the thirty day submission process is known, The Tree Council intends to gain further information by requesting a guided viewing of the trees that would be removed from within the reserve and also of any trees which may be included in the Avanda property to be exchanged and added to the reserve. According to the latest arboricultural report, up to six pohutukawa may be at risk of removal. If this is the case, The Tree Council submission will include a request for the road footprint to be moved further eastward to circumvent the removal of further pohutukawa by making use of the developer's land instead. Also, The



Photos by Suzanne Caron

Tree Council will request the granting of covenant protection for several of the best pohutukawa specimens growing in the far southeastern corner of Avanda's private land as these trees do not appear to be included within the land to be exchanged and therefore have no protection.

Suzanne Caron

Auckland Council and Scheduled Tree Rules

The Tree Council has made two submissions to the Council's Planning Committee this year. Both have pointed out that due to the removal of general tree protection from the RMA the massive loss of urban trees is continuing at a terrifying rate and that Council has many systemic failures in its ability to protect the trees that do still have legal protection.

Examples like the loss of the scheduled Avondale Pecans due to Planners providing inaccurate information to developers have not apparently made any difference, and we have witnessed similar mistakes happening very recently with the loss of a protected oak in Blockhouse Bay and the McEldowney Road macrocarpa on our cover.

We are still awaiting the results of Council's LIDR remote sensing survey of the city's tree cover from 2016, which will show the loss of cover since regulation was removed. This report was due in August but apparently will not now be released until late 2018.

We also challenged Council to review the extremely strict rules for scheduling trees, which means that adding new trees to the schedule is all but impossible. Officers claimed that changing these rules would require a Plan Change to the Unitary Plan. We don't agree and we plan to take action this year to legally challenge that opinion.

We remain extremely concerned that the Schedule 10 of the Unitary Plan (Schedule of Notable Trees) is inaccurate



The remains of the Avondale Pecans. Photo by Robin Brehmer

and that this means in some cases protected trees cannot be legally protected. We understand that as a result of our submissions on this point an audit of Schedule 10 is taking place. We hope this will result in better protection for our most important heritage trees and our suggestion that all scheduled trees should be labelled will be taken up.

Mels Barton

Huia Water Treatment Plant Replacement

Since July 2017 The Tree Council along with several other environmental and community representative groups has been attending meetings of the Community Liaison Group (CLG) with Watercare, discussing all aspects of the proposed replacement water treatment plant at Waima Woodlands Park, Titirangi. Watercare through its consultants has been carrying out site assessments of the area along with developing plans indicating the scale and location of the new plant.

The main task of the CLG is to supply feedback to Watercare on their plans and provide oversight of the processes and decisions leading up to the lodging of resource consent documents with Auckland Council for the clearing of vegetation and earthworks associated with constructing the new treatment plant.

To date Watercare has shown a strong commitment to the process of open consultation with the community, resourcing (at the request of the CLG) the community's own independent ecological experts to work in tandem with Watercare's ecological consultants. Watercare has also provided the CLG with various technical presentations explaining aspects of Auckland's water supply network and the engineering constraints these impose on the proposed new treatment plant.

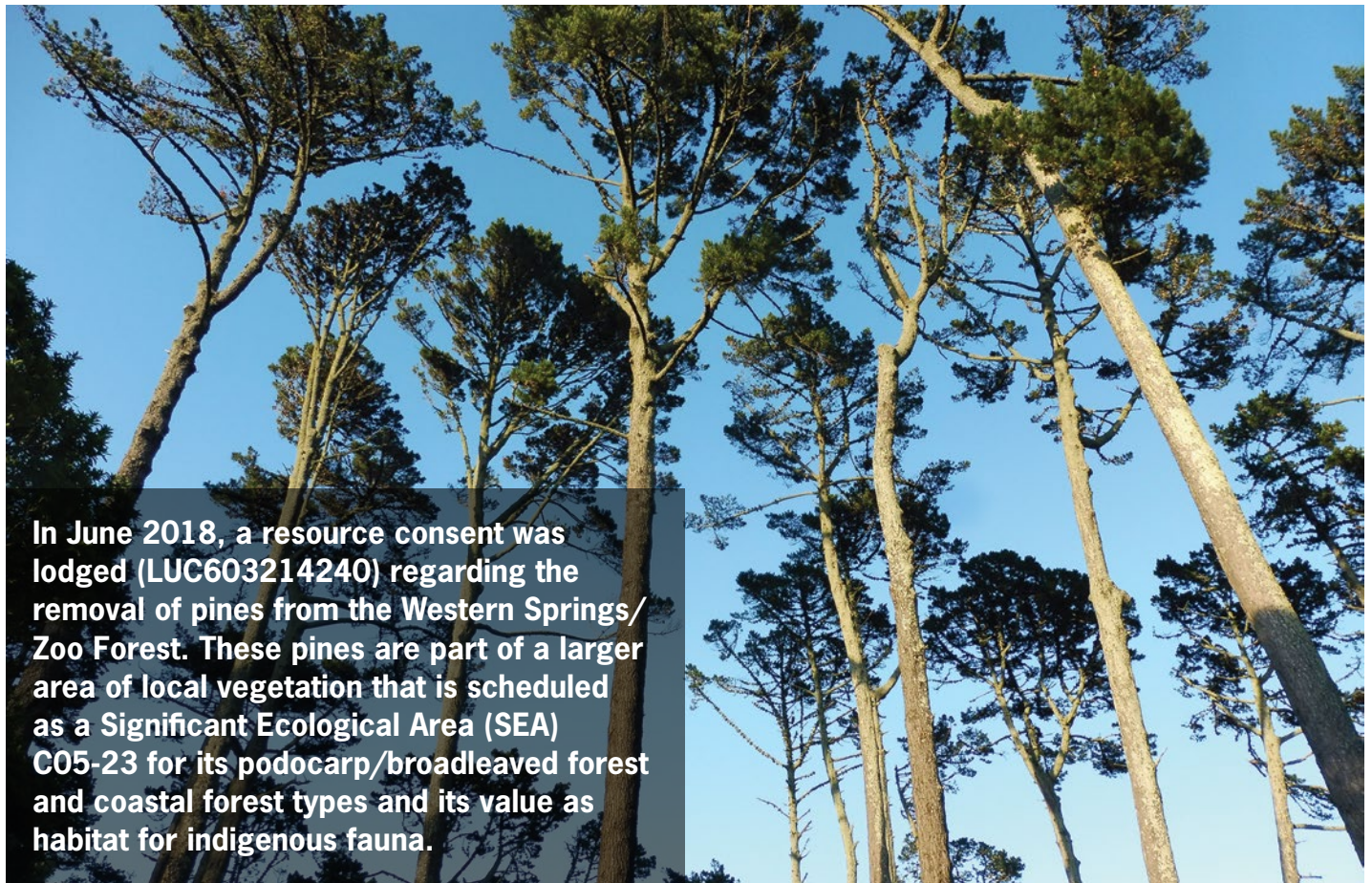
Watercare has presented to the CLG draft plans for the replacement water treatment plant. These plans overlaid onto the ecological assessment mapping of the site provide the first clear indication of just how much vegetation will be lost to facilitate the construction of the new plant. It has been a long and at times laborious process to reach this point but now it is for The Tree Council and all the other members of the CLG to closely examine and provide a comprehensive response to the draft plans.

The Tree Council as part of the CLG has to ensure that the very obvious negative impacts of constructing the plant are in fact unavoidable, and where that is the case provide feedback to Watercare as to what kind and what scale of mitigation and compensation would be appropriate. We have sufficient experience of these kinds of discussions to know that they can only be successful when both parties are open to a mediated solution, thus far Watercare's actions indicate that they are serious about consulting with the community.

We are certainly hopeful that Watercare will seize the opportunity to make sure the mitigation for this project extends beyond those individuals living adjacent to the plant. There is the potential to ensure long lasting positive outcomes that will improve the ecology for the wider area in which this plant is located.

Sean Freeman
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Removal of Pines from the Western Springs/Zoo Forest



In June 2018, a resource consent was lodged (LUC603214240) regarding the removal of pines from the Western Springs/Zoo Forest. These pines are part of a larger area of local vegetation that is scheduled as a Significant Ecological Area (SEA) C05-23 for its podocarp/broadleaved forest and coastal forest types and its value as habitat for indigenous fauna.

Western Springs. Photo:Auckland Council

This pine stand area is bordered by West View Rd, Auckland Zoo, Western Springs Lakeside and the Stadium. Many of the pines were planted in 1923 and the stand originally comprised 506 trees. A 2013 survey found 224 had died or fallen, leaving 282. In 2016 it was found that the live population was down to about 200 and the once densely stocked forest was now significantly thinned with many trees senescing, in poor health, with sparse crowns and dead limbs and becoming increasingly vulnerable to windfall with regular branch and pine tree failures.

Earlier this year, the Waitemata Local Board's Western Springs Native Bush Restoration Project stated that this remaining stand of about 200 pine trees had been advised to be removed. These pines had been identified as being beyond their life expectancy, as unstable and a safety risk, particularly to the adjoining properties in Westview Road. There was also the potential for pine trees to fall directly onto the zoo fence, which presents a significant security breach risk.

In response to this notification at the beginning of July, Tree Council Society member David Smith and myself made a site visit to the Western Springs/Zoo Forest. We met with David Stejskal, Senior Arboriculture Asset & Horticulture Supply Specialist Community Facilities, Auckland Council who lead us around the site for a couple of intrepid hours.

We were interested in observing the state of the existing

pine trees and the understorey vegetation and to assess the extent of possible damage that the process of pine removal would have on the indigenous vegetation in the sub-canopy and understorey tiers.

After our site visit David Smith and I observed the following:

- We assessed that the native sub-canopy and understorey tiers is healthy and there is significant natural regeneration. Auckland Council weed control in recent years has been effective and the resulting seed bank will greatly facilitate the emergence of native forest species after the pines are removed.
- Many pine trees are not in good condition.
- The pine canopy is broken and they do not look healthy.
- Some of the pine trees have been blown over.
- We can also see that the structural stability of the pines has deteriorated to a level where serious concerns are held for their medium-term retention and there seems to be no options available to cut the trees down safely without causing some damage to the native undergrowth. Climbing the trees is now extremely hazardous and is not recommended as the removal method.
- Auckland Council has taken samples ie cross cuts, of the some trees that failed during the 2018 storm to see what is happening internally with them. They found that the insides of the snapped trees were rotten.

- Most of the pine trees have very small canopies or crowns. We note that this can be an advantage during the felling process as damage will be caused mainly by trunks, not masses of branches.
- We observed that the fallen trunks do little damage to the fairly small native trees that exist. It is likely that most of the damage will be caused by the removal of the fallen trunks and the construction of the access road to remove them.
- Previous methods of tree removal, including dismantling of the pine trees and helicopter removal and sectional removal, are now no longer possible because they are too dangerous.

Our conclusion

The Tree Council supports proactive management or removal where a tree has been assessed by an experienced and qualified person and found to pose an unacceptable risk of harm to persons or property.

The pines are a well-known local landmark and will be missed by many residents. However The Tree Council believes that managing their removal is ultimately better than the remaining over-mature trees falling down in an area used by the public.

Also the increasing native species will gradually introduce a character which is more in keeping with the original ecology of Auckland.

We therefore support the plan to remove the pines and revegetate the site with a mix of suitably sourced native plants, but we also feel that the potential damage to the existing native understory that has grown up under the pines is an issue that needs to be minimised.

While the plan is to limit damage to undergrowth, we believe that while it is expected that approximately up to 70% of the existing native vegetation may be damaged during the felling, this impact can be lowered by means of careful planning and supervision. In the 2018 Wildland (consultants) report, six priority areas of heightened ecological values have been identified for protection.

The Tree Council has concerns about how these six priority areas and individual trees are to be protected and requests clear descriptions as to how they are to be identified and how contractors will be directed when working around them.

Bird habitat

David Stejskal (Auckland Council) suggested that some standing snapped tree trunks which are already broken could be retained for use as bird habitat.

It is recognised that mature trees provide bird habitat of a kind that is rare in the inner suburbs and efforts should be made to retain a small number of chosen trunks to serve as habitat for native birds such as owls and herons while the native forest grows up.

The Tree Council submission

We have asked that this resource consent be granted subject to:

1. detailed conditions being required as to how priority areas and individual trees of value are to be identified and protected, how the pine trees will be felled and removed in such a way as to limit the impact of the tree removal and the damage to the native vegetation.
2. a number of totems being left as bird habitat.

Anna Fomison

Do you provide sugar-water to birds and live in Auckland or Dunedin?

We are looking for local gardens in Auckland and Dunedin to be study sites for our Sugar-water Feeder Project!

Feeding birds in backyards is a popular pastime in New Zealand. More and more people are providing sugar water to attract native birds. However, very little is known about how this practice might affect our native birds – does it help them or harm them?

Daria Erastova is a PhD student at the School of Biological Sciences who is studying the influence of sugar-water feeders on native birds in urban Auckland and Dunedin. She is recruiting residential backyard gardens in both cities with existing sugar-water feeders that frequently have birds visiting (e.g. tui, bellbirds and silvereyes). Please note, you can join even if you don't have a sugar-water feeder! Daria will be catching and banding birds, and observing the birds at feeders in your garden.



If you live in Auckland or Dunedin, have established sugar-water feeders in your garden, and are interested in being part of this study please get in touch.

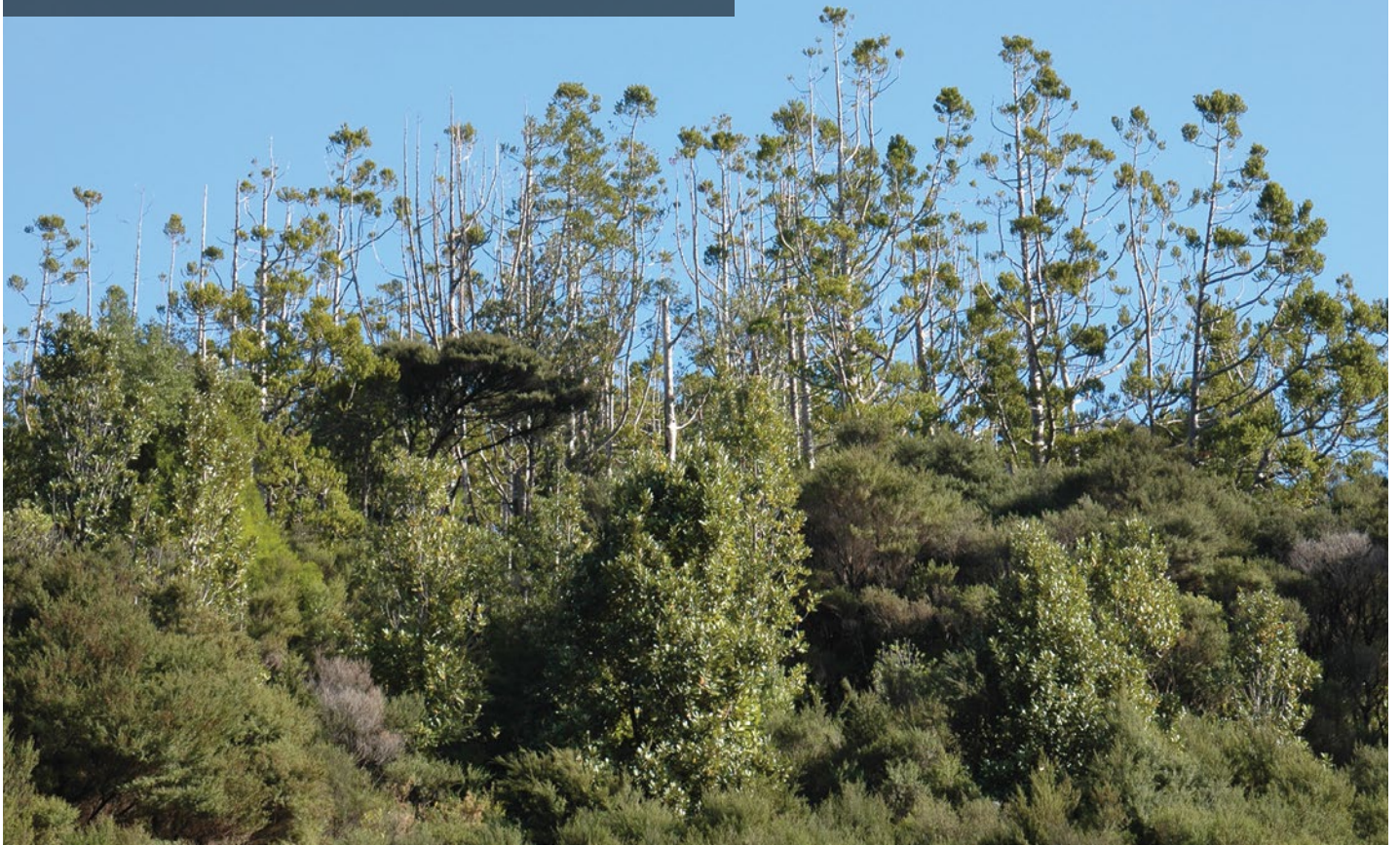
Contact: Daria Erastova – dera076@aucklanduni.ac.nz

For more info:

sugarfeederproject.wixsite.com/sugarfeeder

Kauri Dieback Update

Well, where to start? So much has happened since our last newsletter when the Waitākere Rāhui had just been placed down by Te Kawerau ā Maki in December 2017.



Infected kauri. Photo by Dr Ian Horner

Obviously now we have a full closure of the forested areas of the Waitākere Ranges and a partial closure of the Hunua Ranges thanks to Auckland Council deciding that this was the only way to protect kauri for future generations. Controlled Area Notices under the Biosecurity Act are in place for both these forests.

In addition Forest & Bird have recently closed all their reserves with kauri and Auckland Council have also closed Kauri Park Reserve on the North Shore after kauri dieback was discovered there. DOC plan to close around 30 tracks nationally, but we don't think this goes anywhere near far enough and we have called on the government to close all kauri forests.

We were invited to make a submission to the Environment Select Committee's special investigation on kauri dieback in May and followed that up with a written response to further questions from the Select Committee. The hearing was a fantastic outpouring from many groups and agencies from around the country who have been frustrated with the National Kauri Dieback Programme's poor management for a decade and so the Select Committee heard a very consistent message. We await their report, due in November.

We also had personal meetings with Biosecurity Minister Damien O'Connor and Conservation Minister Eugenie Sage in Wellington to put our case for a professional community trust model to run the kauri dieback programme.

Meanwhile MPI have been busy trying to cover their tracks and have launched a consultation on the future for kauri dieback management. We are pretty cynical about this process, with both the newly appointed independent panel and the strategic science advisory group being just that – merely advisory. So we don't believe that anything other than a continuation of a command and control structure run by MPI will be proposed for the new agency tasked to deliver the National Pest Management Plan – and that just will not do. After 10 years of failure with this model we have no faith that more of the same will do anything to protect kauri for future generations and we are running out of time.

We have a list of actions that we believe are essential to protect kauri and need to be implemented now. We will be submitting this as part of the consultation, direct to the Ministers and we encourage you to raise these points yourself with your MP, the relevant Ministers and direct to MPI.

Mels Barton

Actions:

1. Close all kauri forests.
2. Undertake surveillance of all kauri forests using peer reviewed Auckland Council methodology of helicopter plus ground truthing and soil sampling to establish where the sick and healthy trees are.
3. Audit all track surfaces for compliance with MPI CAN 'no soil on footwear' standard.
4. Undertake research to establish efficacy of sterigene on killing of oospores and find a 100% effective replacement for use in cleaning stations.
5. Implement immediately interim management of National Kauri Dieback Programme by replacing MPI led Governance Group with fully Independent Commissioner that has authentic confidence and trust by community and iwi.
6. Replace National Kauri Dieback Programme structure by community and iwi led trust model as per papers already provided to you by The Tree Council and others.
7. Transfer management of research programme from National Kauri Dieback Programme to Biological Heritage National Science Challenge.
8. Establish 'kauri safe' peer reviewed national standard for engineering for tracks. This needs to separate the track from the ground and ensure people are unable to leave the track, ie raised boardwalk.
9. Develop a peer reviewed and agreed strategy with local stakeholders including iwi and community for rerouting and upgrading tracks in each forest.
10. Upgrade tracks to meet this national standard in line with agreed strategy.
11. On upgraded tracks add new unavoidable cleaning stations that use new disinfectant to ensure 100% effective kill of oospores.
11. Only when actions 2,3,4,8,9,10 and 11 are complete can any tracks be reopened.
12. Tracks in healthy kauri should remain permanently closed and be disestablished. Healthy kauri areas should be fenced to prevent feral pig and deer and human incursion.
13. Feral pig, deer, goat removal plans to be developed and implemented for each forest and maintained with ongoing monitoring.
14. Urgent production of Standard Operating Procedures (based on science) for continuing predator control in areas with healthy kauri, and areas with kauri dieback.
15. Stringent border control at ferries (particularly for Waiheke) and flights between infected areas (between Auckland / Great Barrier / Coromandel).
16. National strategy for kauri on private land.
17. Alternative recreation strategy to direct visitors to low risk sites away from kauri and where infrastructure is able to support that level of use without damaging the environment.

Kauri Dieback Fact Check

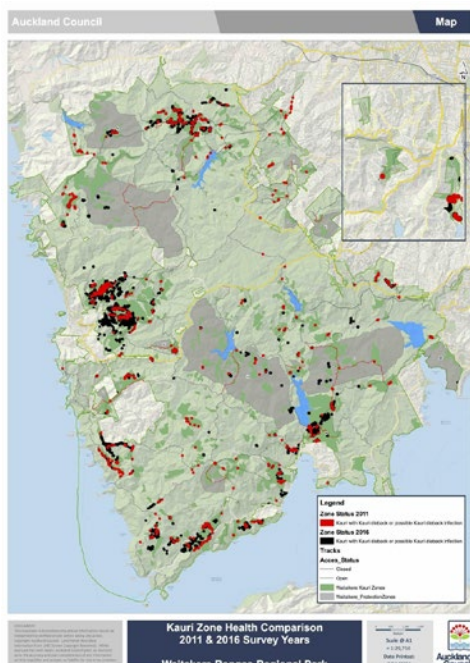
Several media have published letters questioning the closure of the Waitākere Ranges. Unfortunately many of the statements and assumptions upon which these opinions are based are incorrect or inaccurate and this reflects the general lack of public understanding about kauri dieback disease. This article aims to answer some of the questions frequently raised and illustrate why The Tree Council supports the closure. Only by providing accurate information to address these issues and misunderstandings can we hope to gain public support for the closures that are a necessary and vital step and in fact the only way to prevent extinction of this keystone species in the Waitākere Ranges and indeed throughout New Zealand.

Firstly this organism is not a fungus. It is a water mould and one of a family of water moulds (Chromists) called Phytophthora that are well known throughout the world as causing devastating plant diseases. The word Phytophthora means 'plant destroyer'. The Irish potato famine, sudden oak death in California and Jarrah Dieback (now known as the Biological Bulldozer (www.dwg.org.au) in south-west Australia are all caused by different types of Phytophthora. The organism causing kauri dieback disease is a new type of Phytophthora to science and has been named *Phytophthora agathidicida* "Plant destroyer, kauri killer" (Weir et al

2015) because of its predilection for kauri above all other material so far tested. There are a number of *Phytophthora* commonly present in NZ soils (Scott & Williams 2016) but none of them have the devastating effect on kauri that *agathidicida* has (Bellgard et al 2016).

Secondly this is a soil borne pathogen. It is not spread by the wind or airborne dispersal. It has two forms, one an oospore which lives in the soil and can survive for many years – up to 9 so far and counting – and still germinate on contact with water. This is the form that is being moved around and is most responsible for the spread of the disease by humans and animals. It also has a zoospore which germinates from the oospore on contact with water and can swim through the water film in the soil and infect kauri roots. The zoospore only lives a few days and is killed by salt water. It has been estimated that the 'natural spread' via the zoospore is approx 3 metres per year (Beever et al 2009). Both forms of spore are invisible to the naked eye and microscopic (Bellgard et al 2016).

Long term field monitoring currently indicates that every visibly symptomatic tree infected by *Phytophthora agathidicida* usually dies. There is no cure and no resistance has been found, although a research project is currently ongoing at Scion to search for this (<https://healthytrees>).



Auckland Council monitoring report map

Dead kauri. Photo by Dr Ian Horner

co.nz). There is no kauri seed bank because kauri seeds can only survive about 4 months. Kauri have a seedling bank where the tiny trees wait for decades for a gap in the canopy to appear and then they all shoot for the light, which is why you get those groves of rickers. But the seedlings don't survive in soil infected with *Phytophthora agathidicida*.

Auckland Council's Biosecurity department has performed two surveillance surveys of the Waitākere Ranges in 2011 and 2016. These surveys were completed by helicopters systematically flying a grid over the entire forest and identifying trees showing suspicious symptoms from the air (Jamieson et al 2014). Ground teams were then sent in to the GPS locations identified from the air to take diagnostic soil samples and identify symptoms of kauri dieback on the trees. Soil diagnostics and identification of *P. agathidicida* was completed at Plant and Food Research's *Phytophthora* Laboratory in Hawkes Bay. Over 22,744 individual trees were surveyed all over the Ranges – not just those on or near tracks. The results showed that the spread of kauri dieback had more than doubled in 5 years from average 8% to 19% (one in 5 trees infected) and that more than 70% of the infected trees were within 50m of a track. In addition around 50% of infected trees were within 50m of either a baitline or a watercourse. Of great concern was the discovery of the highest quality kauri ecosystem areas over 5 hectares in size now 58% of these areas had some infection. Given that once in an area the disease can spread by itself, albeit slowly, maintaining healthy areas in order to preserve the species is now under huge threat in the Waitākere Ranges.

You can download and read the full report here: <https://ourackland.aucklandcouncil.govt.nz/media/16649/kauri-dieback-waitakere-ranges-report.pdf>. The report and the methodology have been peer reviewed and this is the only scientifically reviewed surveillance method being used in New Zealand (Jamieson et al 2014). To date no other

forests outside the Auckland Region have been longitudinally surveilled (every 5 years) using the same method to monitor the distribution and spread of the disease nationally.

With such a large and rapidly spreading infection source in the Waitākere Ranges the risk of spreading the disease to other healthy areas such as the Hunua Ranges is huge. Without preserving healthy ecosystem the risk of extinction within decades is very high and research often takes a long time to deliver results. We don't have much time if we continue to allow the spread of this disease to double every 5 years and continue to infect new areas. It has been estimated based on the monitoring report that the extinction of kauri in the Waitākeres could occur within 30 years at the current rate of spread.

Humans are the main vector. With 70% of the infection being within 50m of a track plus 50% within 50m of a baitline and the pattern of spread following the Hillary Trail with the greatest areas of infection the most popular areas of Piha and the Cascades it is impossible to deny the reality staring us in the face that we are all responsible for spreading this disease. One look at the infection map tells the story with the red dots the infected trees in 2011 and the black dots the infected trees in 2016.

To claim that pigs, possums and birds, which are ubiquitously spread around the Ranges, are responsible for this infection pattern rather than people is not credible. Yes pigs have been confirmed as a vector of kauri dieback (Bassett et al 2017; <http://ourackland.aucklandcouncil.govt.nz/articles/news/2017/05/claim-that-pigs-kill-kauri-isn-t-hogwash>) and the next most significant vector because of the amount of soil disturbance they cause, but they can be controlled. Prior to 2014 when the budgets were cut pig numbers in the Waitākeres had been reduced by controlled hunting to 30% of previous levels and the risk of dieback spread was reduced by 95% at this level. Pigs primarily root up soil when there is nothing else to eat and

when their numbers are low the forest understory grows back and they eat that instead. Birds, rats and other small animals are a minuscule risk in comparison to people, pigs and dogs in that order. The degree of risk is entirely based on the amount of soil and therefore spores you are able to transport. We move kilos of soil around on our boots on muddy tracks over several kms in a day. Possums and birds spend most of their time up in the trees, not rooting around digging up soil and carrying it around by the bucket load.

The origin and provenance of this pathogen is not known, but it is believed to be from overseas. It is killing kauri very quickly. There is no chance that a tree that lives between 800-5000 years will develop resistance or evolve its way around this pathogen. With an already stressed forest suffering from climate change, fragmentation and the soil compaction from a million visitors per year trampling its sensitive root zone, damaging those roots and bringing disease it is very clear what the future for Waitākeres' kauri is if we carry on as we are.

There is no "immunisation" against this disease and there is no cure. There is a treatment being trialled using injections of phosphite which seems to enable the tree to fight back and stay alive longer, but it does not cure the tree, it does not remove the infection from the soil and it does not immunise the tree against future infection. It is a band aid and can buy us time for individual trees while the research catches up and it needs to be redone every few years. It is not a solution to save our forests by injecting every single tree. Research is currently underway to improve the use of phosphite to treat infected stands in West Auckland (<http://www.kaurirescue.org.nz>) and which has been developed through ongoing research at Plant and Food Research (Horner et al. 2015).

The cleaning stations are not a panacea as the sterigene disinfection method does not kill 100% of the viable oospores. It does kill the zoospore, but this is not the one we are carrying around on our feet and equipment. The sterigene is completely useless unless boots are cleaned first to remove every tiny particle of soil before spraying. On muddy tracks this is almost impossible and certainly not practiced by the vast majority who, if they use the stations at all and up to 80% don't bother, employ the spray and walk away method, which is totally ineffective. The only purpose of cleaning stations is on high grade surfaced tracks that can be walked in all conditions without producing soil on footwear. In this instance they are some protection against bringing the spores in from elsewhere. The research on what kills the oospore has still not been done and 10 years on we are still using an ineffective agent in these cleaning stations.

In addition to killing kauri it is now known that *Phytophthora agathidicida* also affects other plant species such as tanekaha and rewarewa thanks to an MSc project funded by Auckland Council and the University of Auckland (Ryder et al 2016). [https://www.stuff.co.nz/environment/101718676/tanekaha-affected-by-kauri-](https://www.stuff.co.nz/environment/101718676/tanekaha-affected-by-kauri)

dieback-study-suggests. The rest of the host range for this pathogen is unknown. Just another of the basic biosecurity questions not yet answered by the National Kauri Dieback Management Programme in 9 years. But if *Phytophthora agathidicida* is like most other *Phytophthoras* around the world it will not just affect one species. We were clearly warned about this by Professor Giles Hardy from Australia over 5 years ago at the *Phytophthora* conference hosted in Auckland. Giles has been dealing with Jarrah Dieback for over 30 years now and you can watch his presentation here: <https://www.youtube.com/watch?v=aEubEPBdWPU> it makes for prophetic and sobering viewing.

Hence we get to the point of closing and quarantining the Waitākere Ranges. We know how this disease spreads, we know what the main vectors are, we know how fast it is spreading, but we don't know how to kill it, we don't know what else it infects and we have no resistant trees. We know that kauri is a keystone species upon which at least 17 other plant species depend (Wyse et al 2014) and that if we lose the kauri we will get ecosystem collapse in the northern podocarp forests. These trees will not grow back in infected soil. We are seeing the last generation of kauri in infected areas.

So we have no choice but to undertake precautionary measures and close the forests to prevent any more spread of this disease. We need to buy time while we do the research that has been so sadly lacking over the last decade, we are years behind where we should be in understanding this disease and how to deal with it. But it's not too late. If we can keep the healthy kauri disease free by preventing more spread then we may be able to find tools to tackle the infection and who knows maybe find some resistant individuals. Keeping people out of healthy kauri areas is essential and stopping people taking the disease from infected areas to anywhere is also essential, given that we have no idea what else it infects. Kauri are clearly highly susceptible to this pathogen at low levels, they are our "canary in the coalmine" highlighting that we have a serious problem with our forest health, and immediate interventions are required to control ongoing spread and impact of the disease.

Upgrading tracks to make them biosecure and dry under all conditions so that we do not move soil around and educating the public so that they understand about why it is so important that we all take these measures on board and comply with them is the only way forward. Education is the key to this. We all need to make a small sacrifice now in order that our grandchildren will still see kauri forests in New Zealand. Please help spread the knowledge about kauri dieback, not the urban myths and doubt. This is the greatest crisis our forests have faced since colonial logging and this time they won't grow back.

Dr Mels Barton, Secretary The Tree Council
John Edgar, President Waitakere Ranges Protection Society
Dr Nick Waipara, Plant and Food Research

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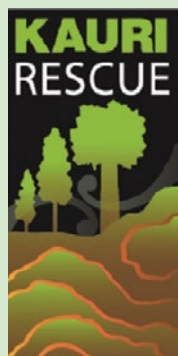
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Kauri Rescue Update

We are into the last six months of this exciting Biological Heritage National Science Challenge project that has given landowners with sick kauri the ability to treat them and hopefully keep them alive.

It's been a steep learning curve with some frustrations over the length of time it takes to get soil test results, and a realisation that people hang on to their treatment kit for much longer than we expected.

So there have been teething problems, but we have bought more kits (each one has about \$700 of equipment) and we have been listening to the feedback from our participants on how to improve the kit and our procedures.

We ran a very successful workshop on a property in Laingholm with about 100 kauri, some of them enormous, and trained up more participants to do the treatment and monitoring. We plan to run another treatment workshop in October on a property in Parau which has several hectares of kauri and will be calling for volunteers who'd like to learn the procedure and help others treat their trees. You can contact Mels on mels@kaurirescue.org.nz if you'd like to join in.

We will be running a data workshop for participants who have treated their trees in November and plan a community feedback session in the Titirangi War Memorial Hall on the evening of 4 December, so put that in your diary.

There is a huge demand for Kauri Rescue's service so we are hopeful that we can get funding beyond the end of the year to continue to support the community and gather more data to better refine the dose rates for successfully treating kauri. We have learned so much about better ways to engage and support our participants that it would be a shame not to continue in some form, so fingers crossed we can keep going.



Tamsyn Downes. Photo by Mels Barton



Mels Barton

James Brodie and family. Photo by Lee Hill

Norfolk Island Pines at Diocesan School for Girls

In February this year I attended the resource consent application hearing for The Tree Council opposing the proposed destruction of two historic Norfolk Island Pine trees located within the centre of the Diocesan School for Girls in Epsom. The school was applying to remove the two trees because one of the trees had lost branches (the largest being 150mm in diameter) in two separate incidents in 2013 and 2016. The school argued that the risk to life and limb was at an unacceptable level and that there were no practical (affordable) alternatives to removal that would satisfy their legal duty of care under the Health and Safety at Work Act.

A year ago I wrote a short article in the 2016/17 Arborea discussing the principles of Tree Risk Assessment and Tree Risk Management. I was therefore doubly disappointed by the both the nature of the application made by the Diocesan School for Girls to remove two historic Norfolk Island Pines on the basis of arguments about risk and the subsequent decision by the independent commissioners granting the school permission to destroy the two trees.

As I pointed out in that 2016/17 Arborea all Aucklanders should expect/demand that claims of dangers to life and limb are supported by strong and convincing evidence ideally provided by a qualified and experienced Arborist. In the case of Dio Norfolk Island Pines the same company had been managing those trees for almost 30yrs, an unprecedented level of management continuity. Having read through the evidence documents I was in general agreement with the assessment of risk by the School's Arborist that the trees represented a broadly acceptable risk in the case of the tree which had shed no branches; and a tolerable risk in the case of the tree which had shed branches in the past. However, the School had also commissioned two Workplace Health and Safety consultants (neither of whom had any qualifications to assess trees) who presented a very different, very damning picture of their view of the risk posed by the trees.

Now it would take up the entire Arborea to present all the relevant details of the hearing suffice to say that the independent commissioners were convinced by the arguments presented by the Workplace Health and Safety consultants. Once having accepted that the trees represented an unacceptable level of risk of significant harm they further determined the costs of measures to effectively reduce that risk to an acceptable level presented an unacceptable financial burden on the School.



Scheduled Norfolk Island Pines. Photo: Diocesan School for Girls

Although very disappointed by the dismissal by the independent commissioners of the qualified tree risk assessment carried out by the School's own Arborists for me this hearing highlights a more fundamental and basic problem which threatens many of our urban trees.

The shedding of branches is inevitable in all trees, at some point in their life span they will shed branches. If buildings and other facilities have been built directly under the canopies of those trees then such normal predictable patterns of shedding will most likely result in conflicts between the trees and those persons moving beneath them. The Diocesan School should never have been given permission to build in such close proximity to two significant historic and protected trees. The placement of an artificial playing surface, footpaths and classrooms directly under the canopies of those two Norfolk Island Pines effectively ensured their eventual destruction.

Given the ramping up of competition for every square metre of space in Auckland it is incumbent on us to defend the space above and below ground that our urban trees need not just to grow healthily but to be able to grow with minimal conflict with people and the built infrastructure which increasingly surrounds them.

Sean Freeman

RMA Bill Update We have been working with a parliamentary researcher and Labour MP Deborah Russell on the criteria for better protecting urban trees and have made good progress. Thanks to the thoughtful and high quality feedback we received from a number of industry professionals we feel that the proposals we have put forward to the government are practical and robust and we look forward to seeing a draft text of the Bill soon. – Mels Barton

The Tree Council Casework Report

Our hardworking Board members have a heavy workload of cases that each of them takes on to try and save the trees that have resource consent applications for removal across the city. We are very aware that these cases are the tip of the iceberg of removals as they only relate to publicly notified consent applications for protected trees (either scheduled, on public land or in a Significant Ecological Area) and do not include all the trees on private land that have no protection and can be removed without consent. However we feel it is vitally important for The Tree Council to advocate to save these special trees given the overall situation and lack of protection. If you would like to help us with this work we would love to hear from you. Get in touch on info@thetreecouncil.org.nz. Here is a brief update on the cases we have worked on so far during 2018:

Seccombes Ave, Newmarket – A second application made to remove trees, submission made, Council requested further information from applicant, no progress, consent withdrawn.

Margan Reserve, New Lynn – Land exchange proposed between developer and Local Board that will affect reserve, awaiting public consultation notification.

All Hallow's Bush, Campbell's Bay – Supporting Forest & Bird's submission, pre-hearing meeting attended – consent granted.

Paturoa Rd, Titirangi Kauri – Developer has applied to have enforcement order lifted by court. Provided letter of support to retain order and insist on enforcement of kauri dieback protocols for removal should it be lifted.

Sunshine Boulevard, Sunnyvale – Continue to follow up enforcement of consent conditions for development.

Watercare Huia Water Treatment Plant Replacement – Attending Community Liaison Group meetings re consent to remove trees in SEA. Mitigation options now being discussed.

Kauri Dieback – Numerous media opportunities and advocacy to remove MPI from management of programme and closure of all kauri forests including meetings with Ministers and submissions to Environment Select Committee. Fully supportive of Waitākere rāhui put in place December 2017 by Te Kawerau ā Maki, lobbied Council to enforce rāhui with full closure, achieved in Feb 2018. Continue to advocate for effective enforcement.

Cornwall Park – Complain to Council & do media re non-notified consent to remove 70 trees plus notified consent to remove two Scheduled Magnolias, make submission, attend hearing, consent granted, trees lost.

Avondale Rd Pecans – Continue to lobby to change Council procedures following illegal removal of Scheduled trees and second attack on remaining trees by next door developer. Audit of Schedule 10 as a result of our lobbying is almost complete.

Glenfell Place, Epsom – Submission made, awaiting hearing, application withdrawn, trees saved.

Oxford Terrace Eucalyptus – Submission made, consent granted, tree lost.

Diocesan School for Girls – Submission made, attend hearing, consent granted, trees lost.

Canal Street, Avondale – Advocate to the Whau Local Board re potential for a park to retain mature trees across a number of vacant sections.

Tizard Rd, Birkenhead – Advocate for Council investigation into alleged poisoning of trees.

Americas Cup Development – Submission made to relocate trees threatened by proposal. Application withdrawn and sent direct to Environment Court.

Epsom Campus – Investigate rezoning removing education precinct protection for trees.

Kauri Removal, Titirangi Village – Investigate and report removal not compliant with kauri dieback SOP protocols.

Waikowhai Rd, Hillsborough – Made submission, attended hearing, awaiting decision.

Western Springs Pines – Made submission, awaiting hearing.

Chamberlain Park – Support Local Board proposed master plan.

Gittos Reserve, Blockhouse Bay – Letter to Council, publicly notified, preparing submission.

McEldowney Rd, Titirangi – Scheduled tree removal without notified consent prevented.

Trees or Development?

Anyone reading *Arborea* is most likely well aware of the benefits afforded by trees in an urban setting. Not only do they offset the visual harshness of a built environment, they provide services such as water and carbon dioxide absorption, and their shade gives us comfort in summer and reduces sun damage to roads and pavements. Moreover, they offer habitat to birds that would otherwise be absent from urban areas. The more trees the more birds, the more native trees the more native birds.

Since general tree protection was abolished in 2012, the pace of tree destruction in Auckland (and elsewhere) has skyrocketed. Before then, the RMA obliged developers to preserve trees above a certain size unless there were compelling reasons for their removal, but in recent years it has become normal for sections to be entirely cleared of vegetation before they are prepared for new construction irrespective of the ecological importance of the trees or the quality of the reasons for their destruction. In most cases,



St Jude's Church in Avondale. Photo by Mels Barton

no resource consent is required for this clearance. Home-owners can cut down significant trees that are valued by the local community without any legal ramifications.

In the vast majority of cases, these fellings go unreported. Since consent is not required, there is no way to find out beforehand that the trees are to be cut. The first indication is the arrival of a tree gang and the sound of chainsaws, by which time it is pretty much too late to stop the work, even assuming there were any legal grounds to do so. Very often, there is no photographic evidence of what the tree looked like before the chop, and once the remains have been removed it might even be difficult to work out what type of tree has been lost. Trees on private land, the vast majority of those being lost, generally have no protection, and until this changes, we will continue to hear the whining of chainsaws in our neighbourhoods replacing the birdsong that most people know and love.

Trees on public land still have protection, albeit imperfect, so when there are plans to remove them, we often hear about them before the work is carried out. This gives communities a chance to resist the development if they feel that trees are being threatened without good cause.

The problem is that development of public land is often important for progress towards a more liveable city. With an increasing population, public infrastructure needs to be modified to accommodate new patterns of settlement and movement. Auckland's population growth, congestion and road safety problems need to be addressed by improving public transport and providing more facilities for walking and cycling, and although some street trees may be lost as a result of this work, it is crucial to distinguish between necessary and unnecessary loss.

It is also important to ensure that options for keeping the trees have been fully explored and to push for the best possible mitigation planting. Recent successful examples

of community engagement in public works have been the Western Springs pohutukawas (opposite MOTAT), which were saved because their removal was avoidable, and Graham's Bush, where mitigation on a large scale has been achieved to compensate for the road going through an important area of forest. Some trees are of course more worth fighting for than others. Small trees are easily replaced by new planting nearby, and old specimens close to death might need to be removed for reasons of safety.

The recent development of Quay Street involved the removal of trees along a central median strip in order to accommodate a new cycleway on Auckland's most popular cycle route, towards Tamaki Drive. Auckland Transport managed to transplant many of these to nearby locations, where they seem to be thriving. Although it is a comparatively expensive process, it appears that pohutukawas below a certain size are very transplantable and AT have developed expertise in this area. Conserving the old status quo would have prevented a development which will likely be seen by most people as an improvement in public amenity. Attempts to stop work that is necessary for the progress of the city simply slow it down and increase the cost to the public, as contractors have to be paid while their machinery is sitting idle.

Distinguishing between necessary and unnecessary public works can be difficult because information comes from a variety of sources, some more reliable than others. The abundance of social media sites run by conspiracy theorists and vested interests, combined with the recent increase in the willingness of posters to make disingenuous claims, present us with a problem as to who to believe. We can only do our best to inform ourselves and weigh up the information we have, using sources that can be trusted.

continued overleaf...

In recent years it has become extremely common for consents relating to tree removal to be awarded on a non-notified basis, even for officially listed trees, but especially for trees on public land or in Significant Ecological Areas (SEAs), meaning that even if the general community deems a particular project unnecessary or poorly thought-out, there is no possibility for the public to have any input into the process. This often results in last minute tree protests undertaken by groups or individuals who may not be properly informed and are undoubtedly concerned and frustrated at their inability to have a say since there has been no official channel of communication or community education before tree removal begins. The Tree Council believes that development will be more successful, with better outcomes for everyone, when tree-felling consent applications for

protected trees are notified on a precautionary basis and a public process can be conducted to achieve a more acceptable result.

Ultimately, urban forest is essential to the habitability of a city and is as much a part of its infrastructure as transport, sewerage and electricity. There should not be a polarisation between trees and public works because both are needed to make our city function. We can have both if we have better and more open planning and decision making. Some developments are needed for the public good that result in trees being removed, but the potential conflict can be managed better by allowing the public to have an input to the decision making process, rather than having decisions imposed upon them.

David Smith



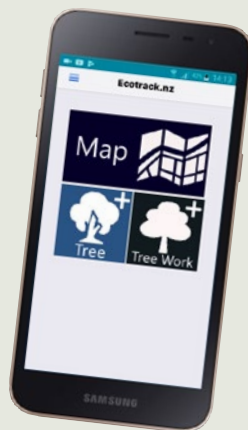
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Good with numbers?

The Tree Council is looking for a new Treasurer. Can you help? If so please contact us: info@thetreecouncil.org.nz

Have you got our tree app yet?

The Ecotrack Cloud App has been designed by Steven MacLeod and enables the public to record trees and tree loss. Download the App to your smartphone now.



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