

Memorandum

21 December 2018

To:	All elected members and Independent Māori Statutory Board members
Subject:	Update on the long-term management of myrtle rust
From:	Phil Brown - Manager, Biosecurity, Infrastructure and Environmental Services Agnes McCormack - Head Operational Management and Maintenance, Community Facilities

Purpose

1. This memorandum provides an update on the current state and long-term management of myrtle rust.

Summary

- *Myrtle rust is a South American fungal pathogen that affects a wide range of species within the Myrtaceae family, including native species such as pōhutukawa. It was confirmed in New Zealand in 2017 and has spread rapidly. It can be spread via a range of pathways including wind, movement of diseased plant material and accidental transport of spores carried on pruning or gardening equipment, clothing, bees and machinery.*
- *The management of myrtle rust has moved from eradication to long-term management. The Ministry for Primary Industries retains a lead agency role nation-wide. Auckland Council is now responsible for management of myrtle rust on council-administered land.*
- *The rapid spread of myrtle rust through the Auckland region is expected this summer, due to a combination of warm, moist weather conditions that favour myrtle rust growth and new plant growth being susceptible to infection by myrtle rust.*
- *Based on currently available research, reducing human-assisted spread, particularly into parks, is considered likely to reduce impacts over the short term. While emergency seed collection is still being undertaken. Reducing inoculum levels where appropriate may help reduce impacts of myrtle rust in the longer-term, depending on how myrtle rust responds to the Auckland climate.*
- *Staff from Community Facilities, Botanic Gardens, Regional Parks, Environmental Services, and Community Services have begun responding to myrtle rust as landowners and administrators (see actions outlined in Attachment A).*
- *A further update on the long-term management of myrtle rust will be provided after the summer season.*

Context

2. Myrtle rust was first detected on the New Zealand mainland in early May 2017 and the lead agency, Ministry for Primary Industries, attempted eradication. By August 2018, the disease was found across most climatically suitable parts of the North Island and the top of the South Island, including the Auckland region. The Ministry for Primary Industries declared eradication unsuccessful and moved the pathogen into a long-term management status. The potential impacts of myrtle rust in New Zealand will not be fully understood until the disease has been present for another few years.
3. At this stage it is known that myrtle rust impacts both native and exotic myrtle species – impacts vary from cosmetic to plant death depending on vulnerability of the species, local climate (especially rainfall and temperature) and plant health.
4. Impacts on common myrtle species may include:

- possible extinction in the wild of *Lophomyrtus*, a genus containing ramarama and rōhutu that is unique to New Zealand
 - potential changes in abundance and distribution of pōhutukawa and rātā species
 - probable reduction of some street tree species and associated impacts on urban forest functionality (e.g. nectar sources).
5. Mānuka, kānuka and feijoa currently appear to be relatively resistant, although this may change as inoculum levels increase.
 6. The following has guided the council's interim management strategies:
 - spread of myrtle rust is via both wind and human vectors. Human vectors include growing and transport of Myrtaceae (including for restoration programmes and floristry), transport of spores via clothing, equipment and bee hives. Relative impacts of the different vectors is currently unknown
 - intact natural ecosystems, colder, less humid, and coastal ecosystems appear to experience lower infection rates than fragmented, warmer, more humid and inland ecosystems and edge areas
 - the rate and extent of infection appears to be linked to inoculum loading (meaning the higher the volume of spores landing on a myrtle plant, the more impacted it is likely to be). Reducing inoculum loading by targeted removal of highly susceptible species may help protect indigenous species such as coastal pōhutukawa. Susceptible non-indigenous species include hybrid cloned cultivars of ramarama commonly used in landscaping, regularly pruned lily pilly hedges, Western Australian willow myrtle (including approximately 3,000 street trees in Auckland) and Australian tea tree (including approximately 2,000 street trees in Auckland).
 7. Central government has allocated the Ministry for Primary Industries \$2 million towards researching myrtle rust. Research in areas that enables the above assumptions to be tested will be sought.

Response

8. The Ministry for Primary Industries retains lead agency role, and is currently developing a long-term management plan in consultation with a range of stakeholders, including Auckland Council. They currently anticipate a final document will take approximately a further 12 months. In the meantime, they are developing advice for iwi, councils, private landowners and other interested parties around the management of myrtle rust.
9. Under long-term management status, Auckland Council is responsible for managing myrtle rust on land it administers. This includes approximately 73 per cent of indigenous ecosystems within the Auckland region covering approximately 126,872 hectares and a large number of street trees.
10. An inter-departmental plan for council's management of myrtle rust within the Auckland region, particularly on land and assets managed by Auckland Council, is being developed. The interim approach targets reducing spread into high value ecosystems and reducing inoculum levels where this can be achieved with minimal environmental impacts.
11. Auckland Council's contribution to any national programme will be determined through the national long-term management plan in development, led by Ministry for Primary Industries.
12. A summary of key myrtle rust management actions to date has been included as Attachment A to this memorandum.

Next steps

13. Over the summer, staff will continue to respond to myrtle rust to reduce the risk of it spreading to land and assets administered by council, and will continue to work with the Ministry for Primary Industries to input into the development of the national long-term management plan.

14. Where practical, information will be provided to landowners and key industry groups within the Auckland region on how they can minimise the impacts of myrtle rust on the properties and businesses.
15. A further update on myrtle rust will be provided to elected members and Independent Māori Statutory Board members after the summer season.
16. If you have any queries relating to myrtle rust, please contact Sarah Gibbs (sarah.gibbs@aucklandcouncil.govt.nz) or Murray Fea (murray.fea@aucklandcouncil.govt.nz).

Attachments

Attachment A – Management of myrtle rust in the Auckland Region

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Key engagement actions to date

Action	Date
<ul style="list-style-type: none"> Two presentations provided at Infrastructure and Environmental Services mana whenua hui in May and November 2017 Email updates provided to elected members and Independent Māori Statutory Board members on new myrtle rust detections from November 2017 until April 2018 when the Ministry for Primary Industry's response shifted to long-term management. 	May 2017 – April 2018
Biodiversity provided assistance with the Department of Conservation's emergency seed collection	March – May 2017
Botanic Gardens supporting seed collection and providing input into the New Zealand Plant Producers Network nursery hygiene guidelines	March 2017 - ongoing
Myrtle rust hygiene training for staff and contractors	Delivered to key contractors spring 2017 Offered again spring 2018
Decision matrix for prioritising the management of street trees infected with myrtle rust developed	July 2018 - current
Planting advice for regional parks native restoration programmes and Million Trees supply to avoid species at high risk of myrtle rust infection (ramarama and pōhutukawa) being transported around the region and planted on parks land	July 2018
Advice provided to the Trees for Survival in Schools programme to minimise spread of myrtle rust	September 2018
Myrtle rust risk considered in Regional Parks permit applications (e.g. transfer of potentially contaminated hives)	September 2018 - ongoing
Tree app selected as most suitable data collection point and, in consultation with Department of Conservation, adapted to allow for appropriate myrtle rust data collection	September 2018
Pruning training provided to Regional Parks staff and volunteers, Department of Conservation staff and volunteers and Cornwall Park Trust Board staff	October 2018
Decision tree established for managing myrtle rust on Regional Parks	October 2018 - current
Communications material targeted at Auckland gardeners distributed via Auckland Libraries, focusing on the following: <ul style="list-style-type: none"> replace <i>Syzygium australe</i> with native, non-myrtle alternatives clean tools after pruning prune in autumn and early winter. 	October 2018 – December 2018
Email update to Mana Whenua Kaitiaki Forum	November 2018
Planting advice adapted for commercial nurseries	November 2018 – December 2018

Figure 1. Design of flier / book mark / screen display distributed through Auckland libraries and Flower and Garden Show



Slow the spread of myrtle rust

1. Replace monkey apple/lilly pilly hedges with alternatives like pittosporum.
2. Limit pruning to autumn and early winter.
3. Destroy infected material by:
 - Burying deeper than 50cm
 - OR wrapping in plastic and disposing to landfill
 - OR wrapping in plastic and leaving in sun 6-8 weeks before composting.
4. Clean tools with methylated spirits or 5-10% bleach and wash clothing and hats after pruning.

Report myrtle rust to MPI on 0800 80 99 66
or download the free Myrtle Rust Reporter app.

Find out more:
visit aucklandcouncil.govt.nz
or call 09 301 0101

