1.20 EVENT BRIEF - Demonstration Argentine Ants Eradication Drone

Date and Time:	Thursday 15 November 2018, 1.30 pm – 2.00 pm
Location:	TBA
Attendees:	Eric Hutchinson, Administrator PJ Wilson Drone operator

Key Issues

- Argentine ants were identified on Norfolk Island in 2005 and an eradication program has been underway since 2008, using a variety of products and methods. It is unclear how and when the ants arrived on the island, but it was most likely many years before and through arriving with goods from either Australia or New Zealand. A map of the known Argentine ant infestations on Norfolk Island as at May 2015 is at **Attachment A**.

- As Argentine ants are aggressive in nature and need protein-based food sources, they may pose a threat to the majority of the Island's vertebrates and invertebrates.

- There is consensus between Norfolk Island residents and people globally involved in ant eradications that eradication of Argentine ant from Norfolk Island is achievable.

- A number of eradication treatments have been used to date. Currently, hydrogels, dry and liquid sugar (laden with fipronil) and termidor spray are being used.

- Treating the western cliffs are problematic using traditional methods for dispersing treatment as most of the product would fall to the cliff base and into the ocean. The use of Fazer drones is more feasible, cost-effective and safe.

- The drone provides horizontal spraying using ballistic technology. Spraying a sucrose-rich solution laced with fipronil is considered to be the most environmentally acceptable, cost effective and efficacious eradication treatment.

- You recently announced $40,000 to extend the time the drone is on Island. The Norfolk Island Regional Council and CSIRO are leading the eradication program (**Attachment B**). The program is fully funded by the Australian Government.

- Post treatment assessments will be undertaken by a specially trained detector-dog. A detector dog is currently being training in New Zealand and is expected to arrive on Norfolk Island in late 2018.

Background

- The dispersal of Argentine ants on Norfolk Island can be attributed to the processing of contaminated garden waste at the Island's Waste Management Centre (WMC) between late 2006 and early 2008 which was then sold to the community as mulch. This dispersal pathway no longer exists because the WMC is no longer operational. The only dispersal pathway remaining is by accidental movement of an ant in soil or goods.

- As Queen Argentine ants do not fly, in the absence of human intervention population expansion is achieved through budding or fission (where a new queen and workers split from an existing colony). This results in Argentine ants forming large and contiguous populations.

- Norfolk Island's mild climate is generally favourable for Argentine ants with foraging, breeding and activity peaking during the warmer months of spring and summer. During the winter, when maximum temperatures range between 18ºC to 19ºC, the foraging activity of Argentine ants reduces.

- At particular risk on Norfolk Island are ground-nesting sea birds and already endangered species such as the Norfolk Island Green Parrot, Norfolk Island Scarlet Robin and Slender-billed White-eye. The Lord Howe Island Skink and Gecko, now restricted to Phillip Island, may face the same threat if Argentine ants spread to this offshore islet.

- Argentine ants also farm and protect bugs such as aphids for the honeydew that these bugs secrete. As a result these sap-sucking bugs can become so prolific that they can destroy or significantly reduce the yield of horticultural crops, especially citrus.

- Post-treatment assessments to assess treatment efficacy to date have been conducted using the traditional and laborious method of attracting ants to non-toxic lures. More recently, professionally trained detector dogs have proven their efficiency and cost-effectiveness. Detector dogs are now routinely used for detecting ants in all major ant eradication programs in Australia and New Zealand. These dogs are highly cost effective because they can survey areas more quickly and with greater confidence than people using other methodologies.

- The world's first Argentine ant detector dog was trained in New Zealand in 2015, and a second is currently being trained for this program on Norfolk Island. The use of a detector dog will dramatically decrease the time required to assess treatment efficacy compared with the use of lures. The dog will also allow the thorough assessment of the entire island for any more unknown populations.

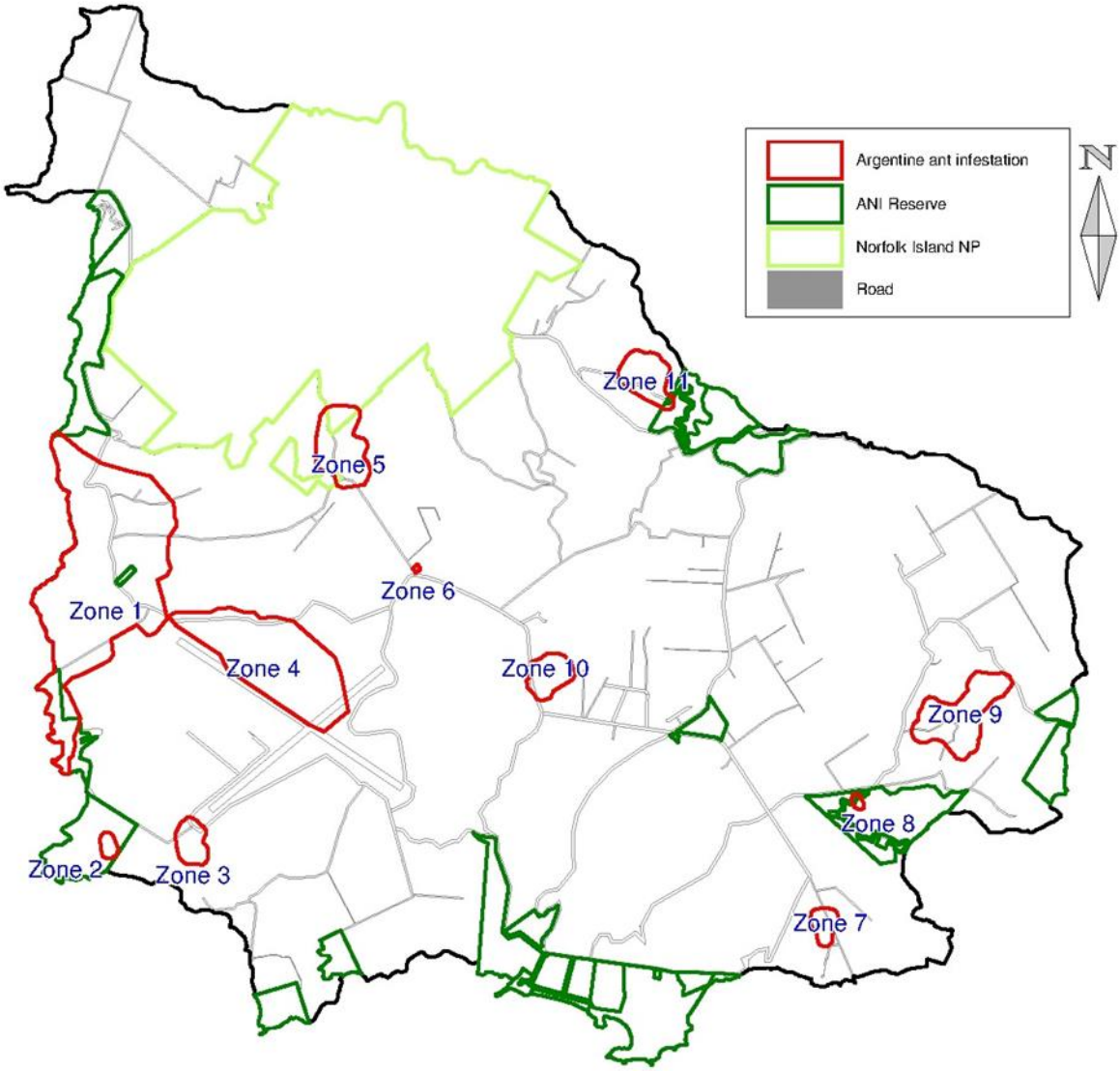
Sensitivities: Nil

Attachments:

A Map - Known Argentine ant infestations on Norfolk Island as at May 2015
B Argentine Ant Eradication Strategy 2018 - 2022

Attachment A

Known Argentine ant infestations on Norfolk Island as at May 2015



Extent and location of known Argentine ant infestations on Norfolk Island as at May 2015. All zones except 1 and 4 have been treated and are awaiting post-treatment assessments or re-treatment. Although the boundaries of zones 1 and 4 have not been accurately re-surveyed since 2015, on-ground observations indicate that the boundaries shown here hold true. The most recently found infestation, zone 12, is not shown and only covers one property.