

Yellow-legged hornet

Response Operations – Actions and Outcomes

Shaun Bennett – May 2026



Response Operations

- AIM = Eradication
- Layers of actions...
 - Different actions
 - Different times
 - Different people
- ...A TEAM EFFORT

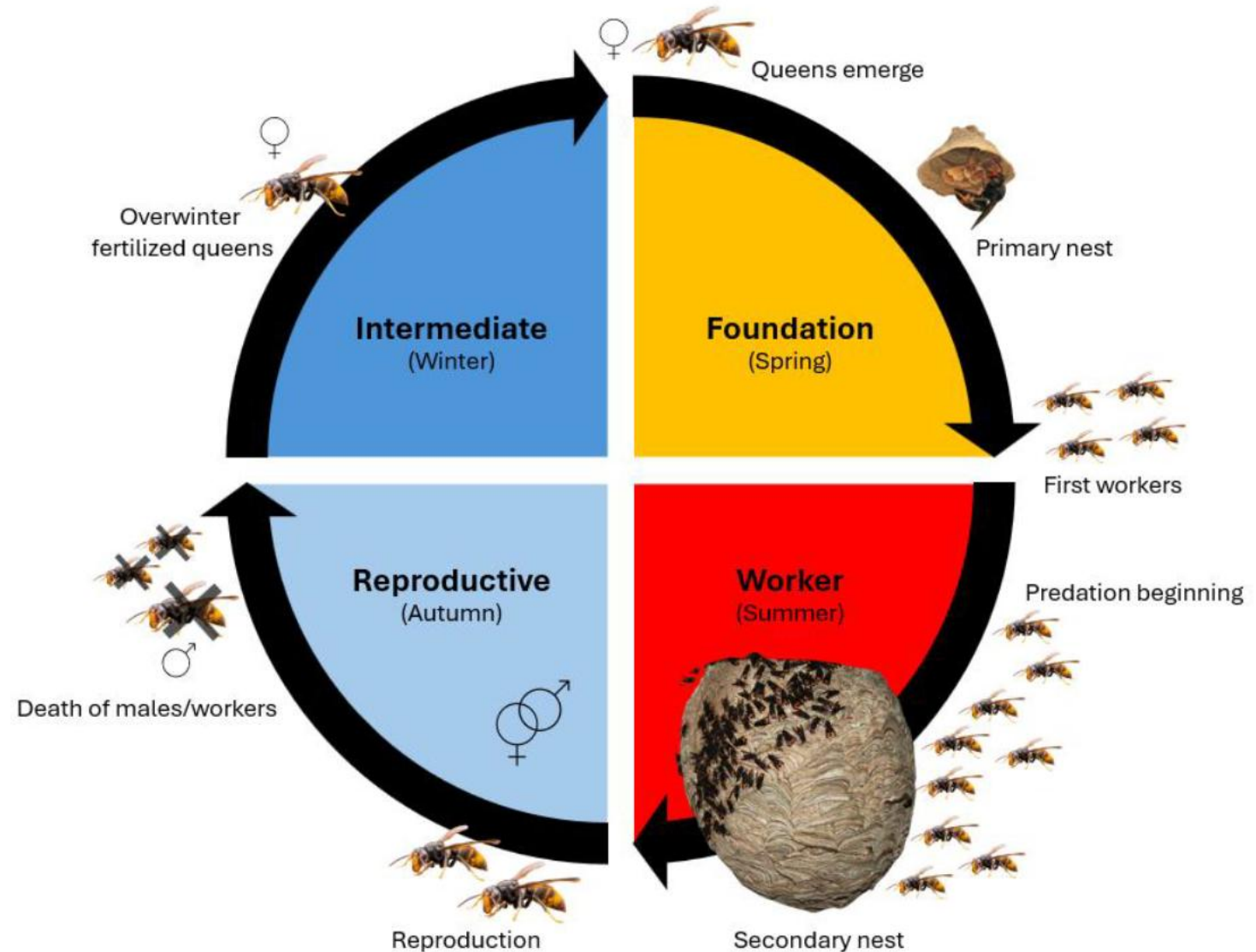
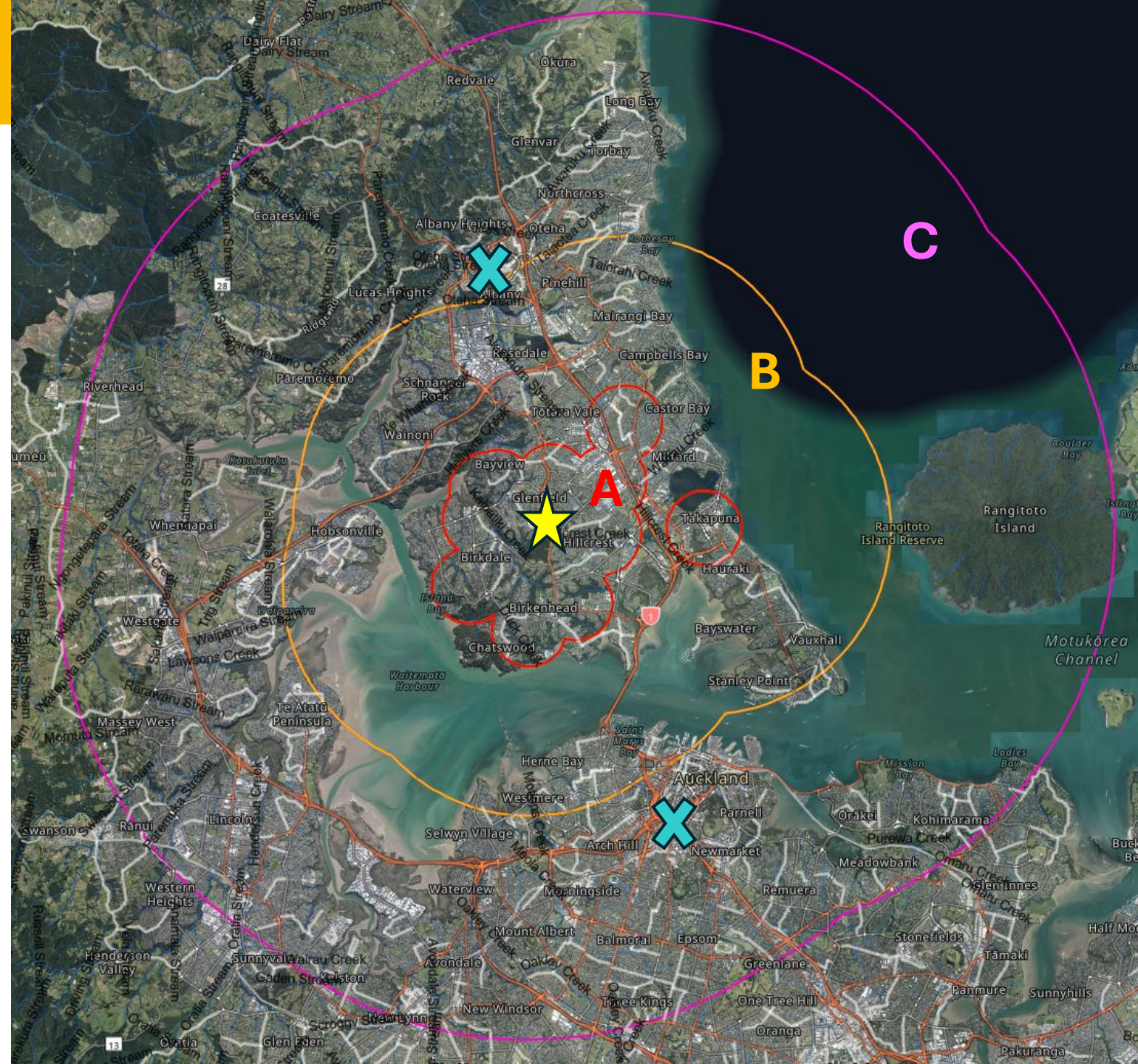


Figure 1. Life cycle of *Vespa velutina* (PHEL Entomology)

Response Zones

- Relative risk, effective and efficient actions
- Based on positive **nest** or **queen** detections
- A Zone (red)
 - 0-1km
 - Most intensive response measures
- B Zone (orange)
 - 1-5km
- C Zone (pink)
 - 5-11km



Public engagement

- High reporting (>17,600)
- Low percentage of positives ~ 1.3%
- But high proportion of ALL positive samples were from public (~ 1/3)
- Great early season results (Oct-Dec):
 - 16 Queen detections
- Public find nests!
 - 5 embryo nests
 - 8 primary nests
 - 2 secondary nests – were found after public reports



Public engagement

- Public observations and reporting is an important surveillance pathway
- YLH is a good target for public engagement/observations
 - large and distinct
 - present where can be seen - at certain times of year (embryo/primary nests)
- Lack of visibility on public trapping effort. Possible under-reporting of captures

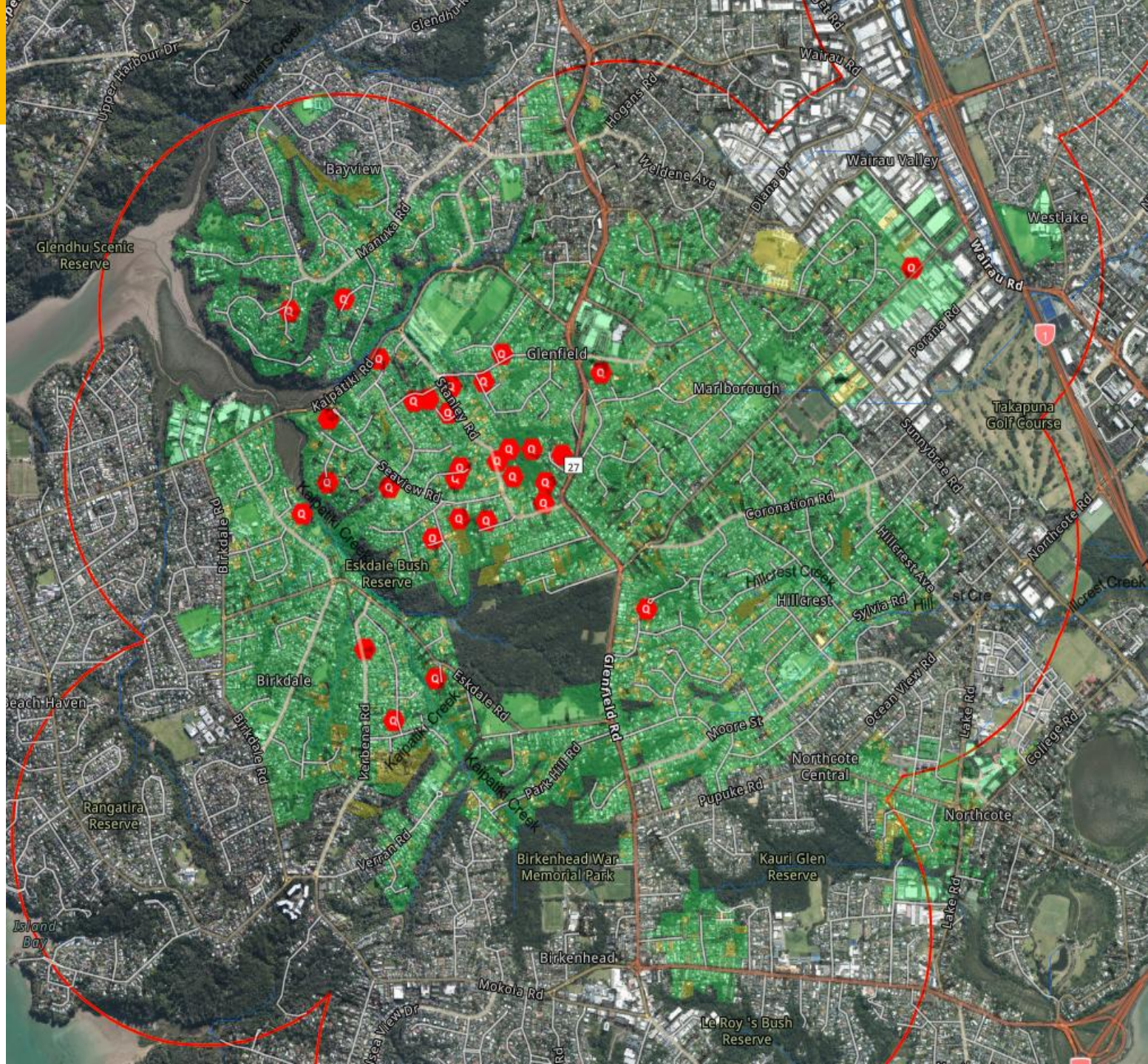


Ground surveys

- Conducted early November – mid January (embryo and primary nest period)
- Out to 200m from a queen, nest and early worker detections i.e. A zone mostly, some B zone.
- Some wider search ‘blocks’
- Revisits, following observed hornet activity at some sites.

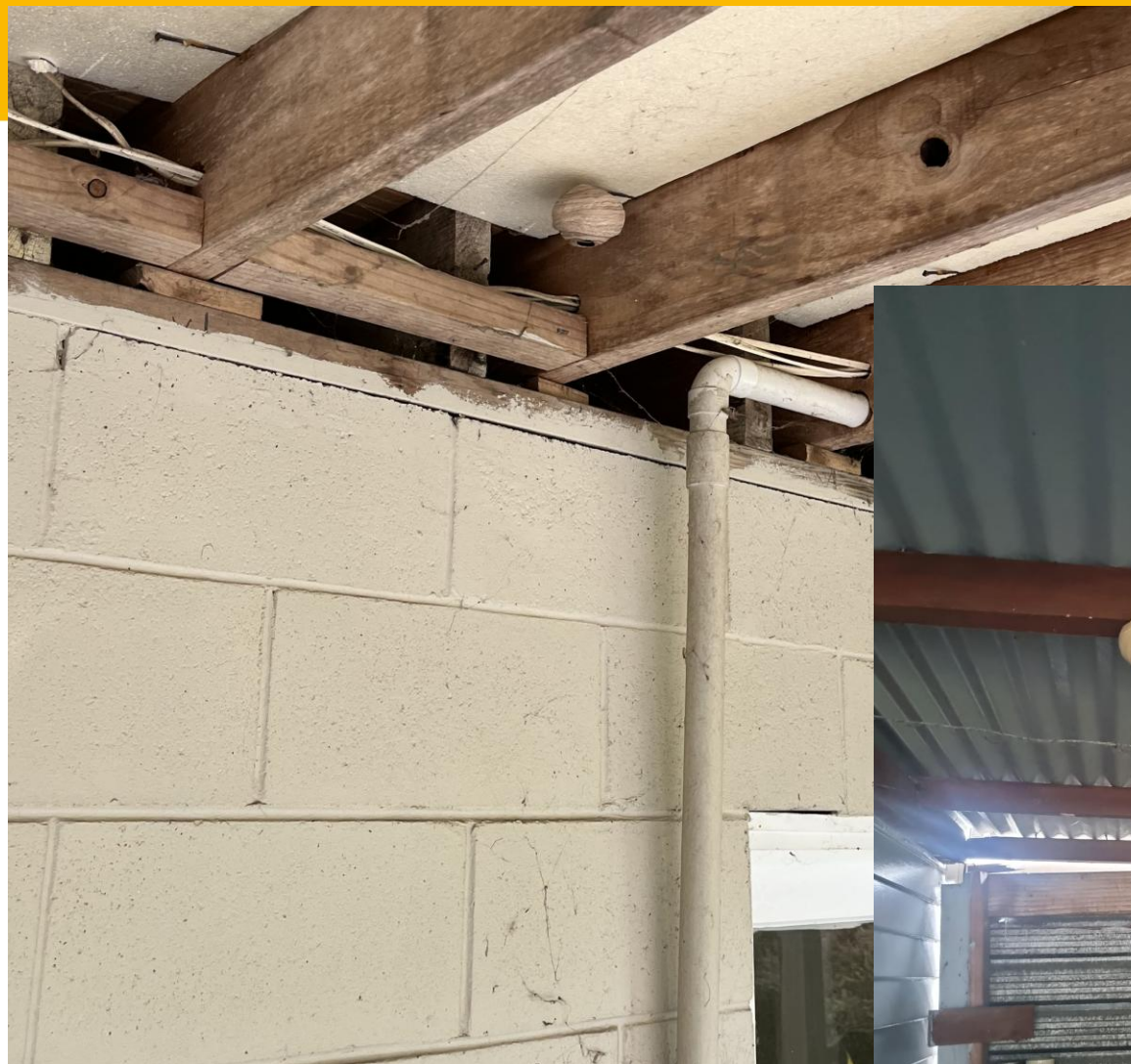
~8,209 properties

~973 hectares



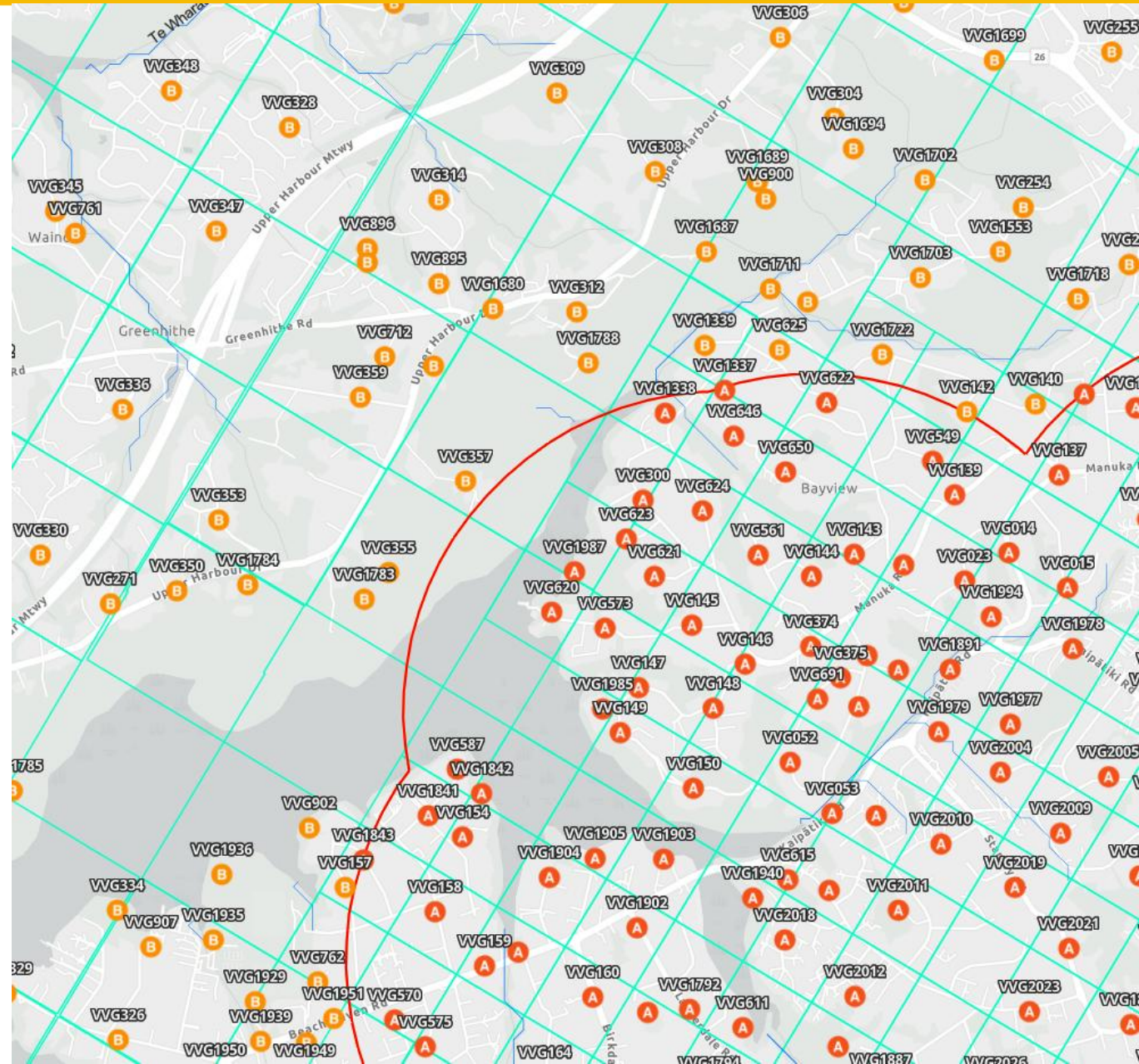
Ground surveys

- 25 nest detections - 18 embryo, 7 primary (incl. the first NZ primary)
- Effective at finding exposed nests - good option for structures and home sites
- Not good for reserves/bush areas
- Further opportunity to engage with public
- Future - delay to allow further nest development to increase detection rate



Trapping

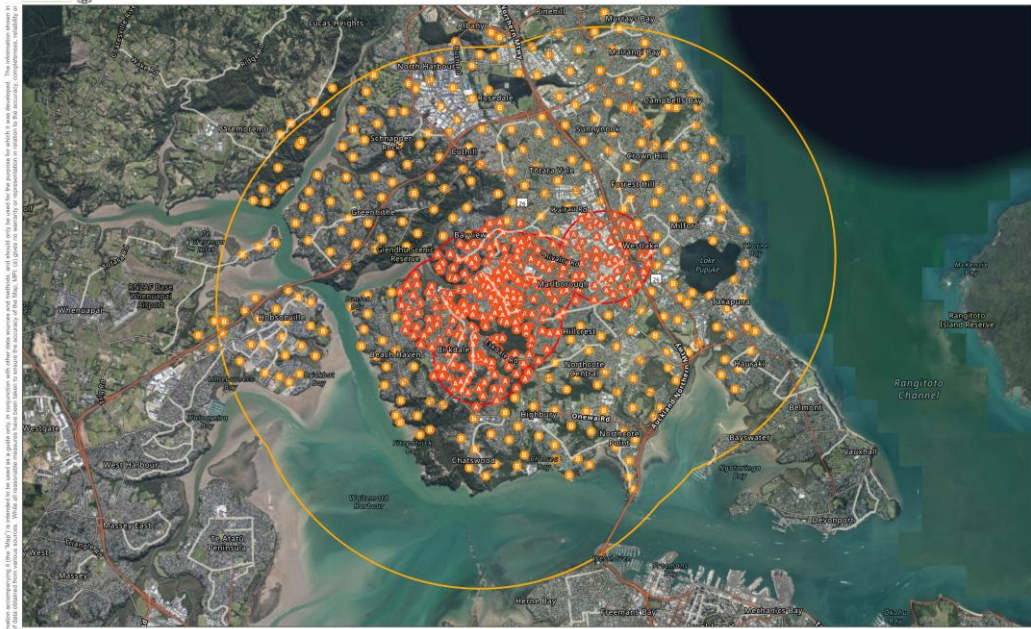
- Detection – not control
- Started early November
- A zone
 - 250x250m grid cells
- B zone
 - 500x500m grid cells
- C zone
 - All active apiaries
- Response serviced A and B traps – multiple times per week
- Beekeepers serviced C traps – weekly when possible
- Public trapping - ?



Trapping

May 2026

Dec 2025

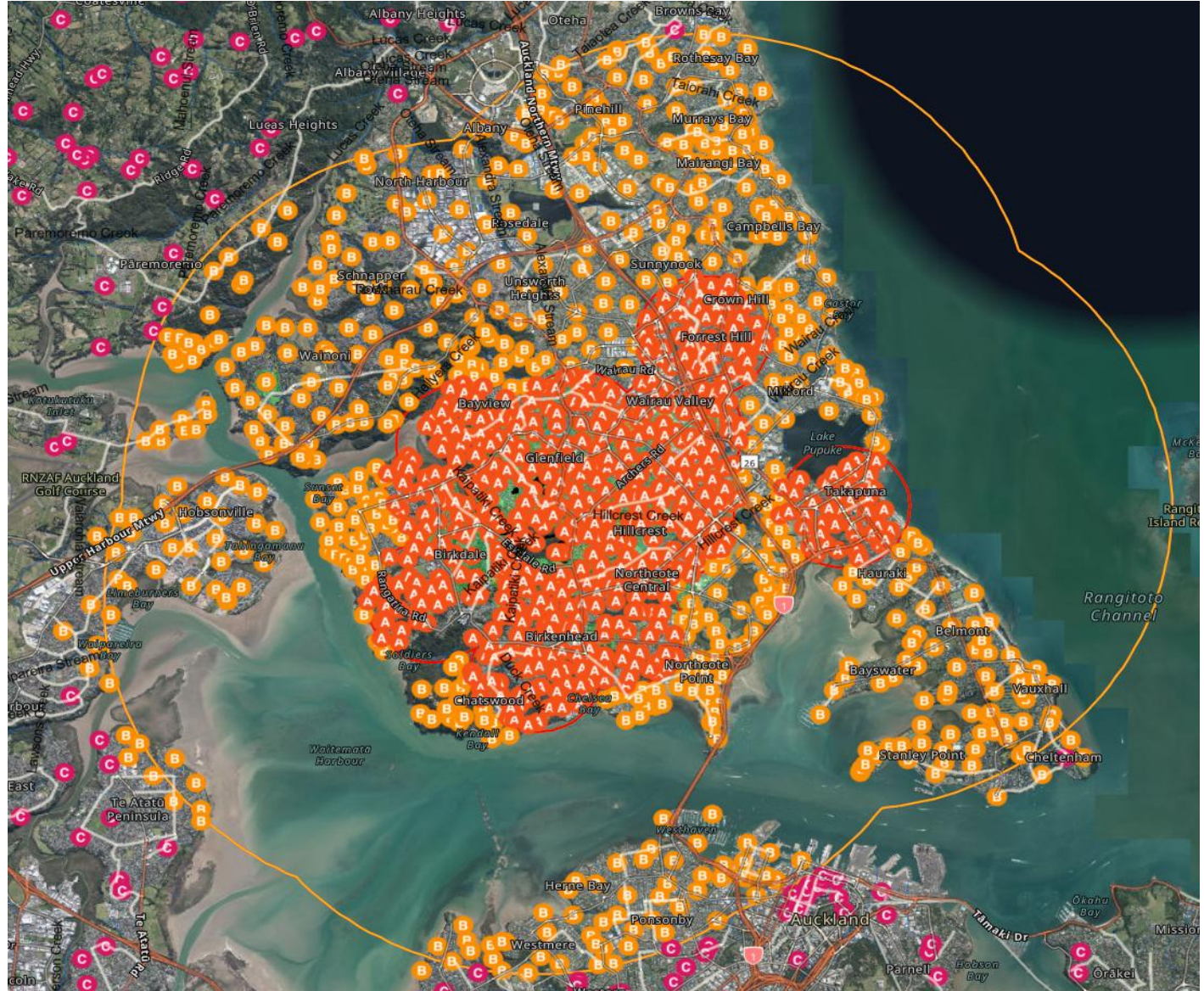


Yellow-legged Hornets Auckland 2025
Trap Locations

- 1km Detection Buffer
- 5km Detection Buffer
- A Zone Traps
- B Zone Traps

Date: 3/12/2025

Produced by: Response Operations



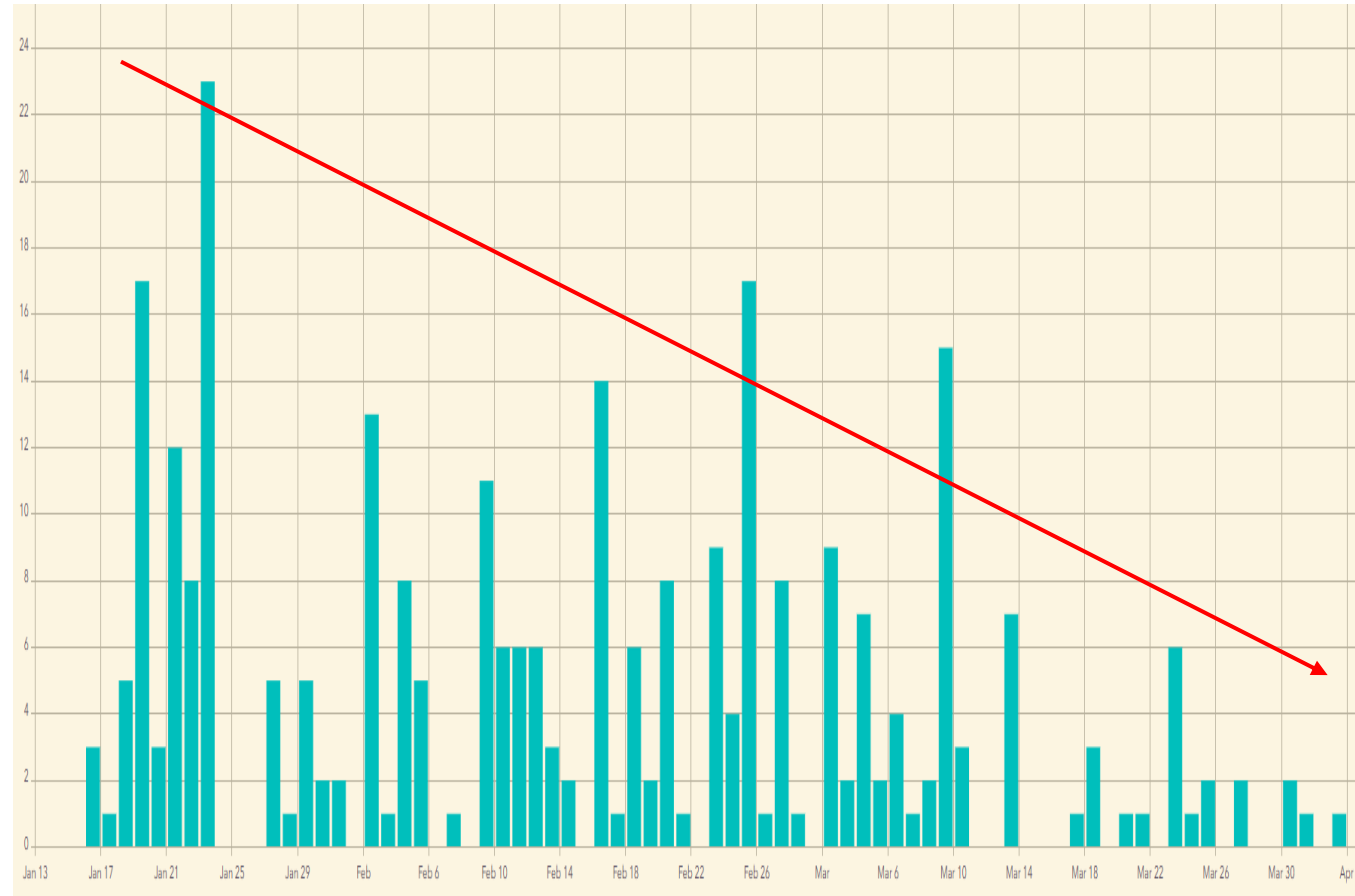
Trapping

>1,400 traps

>47,000 trap checks

>400 positive trap checks (0.9%)

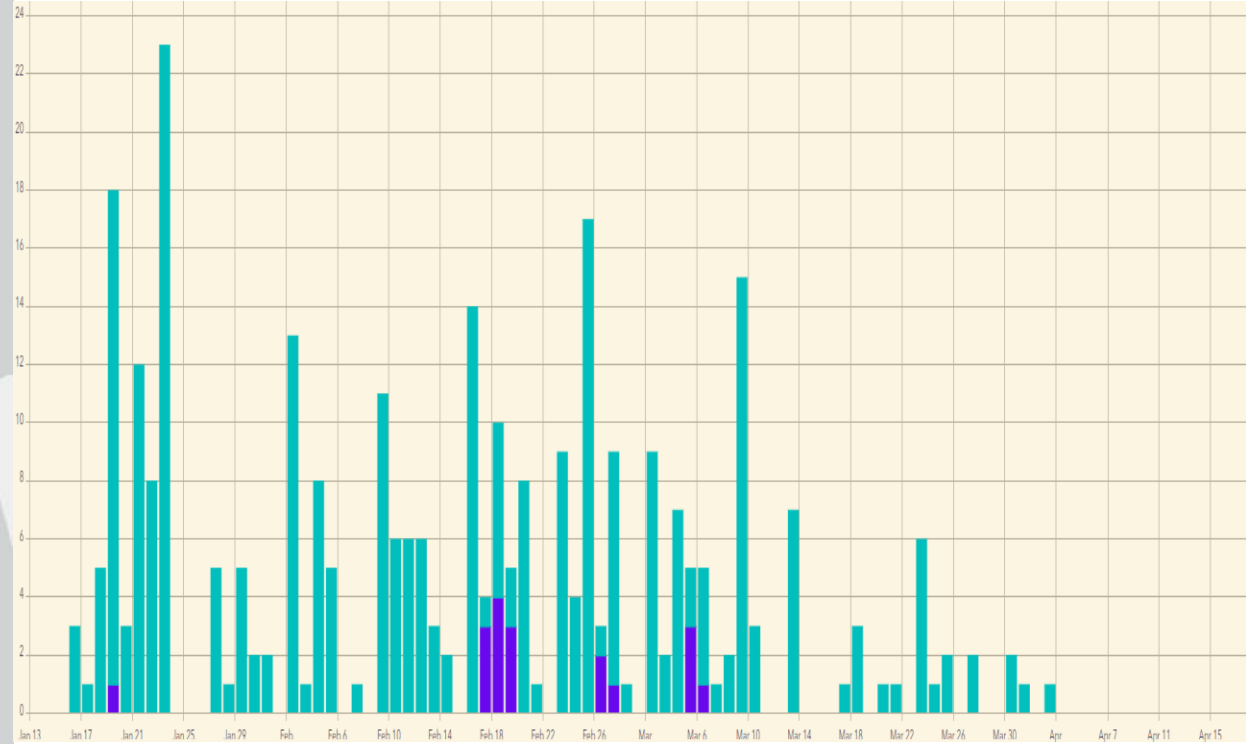
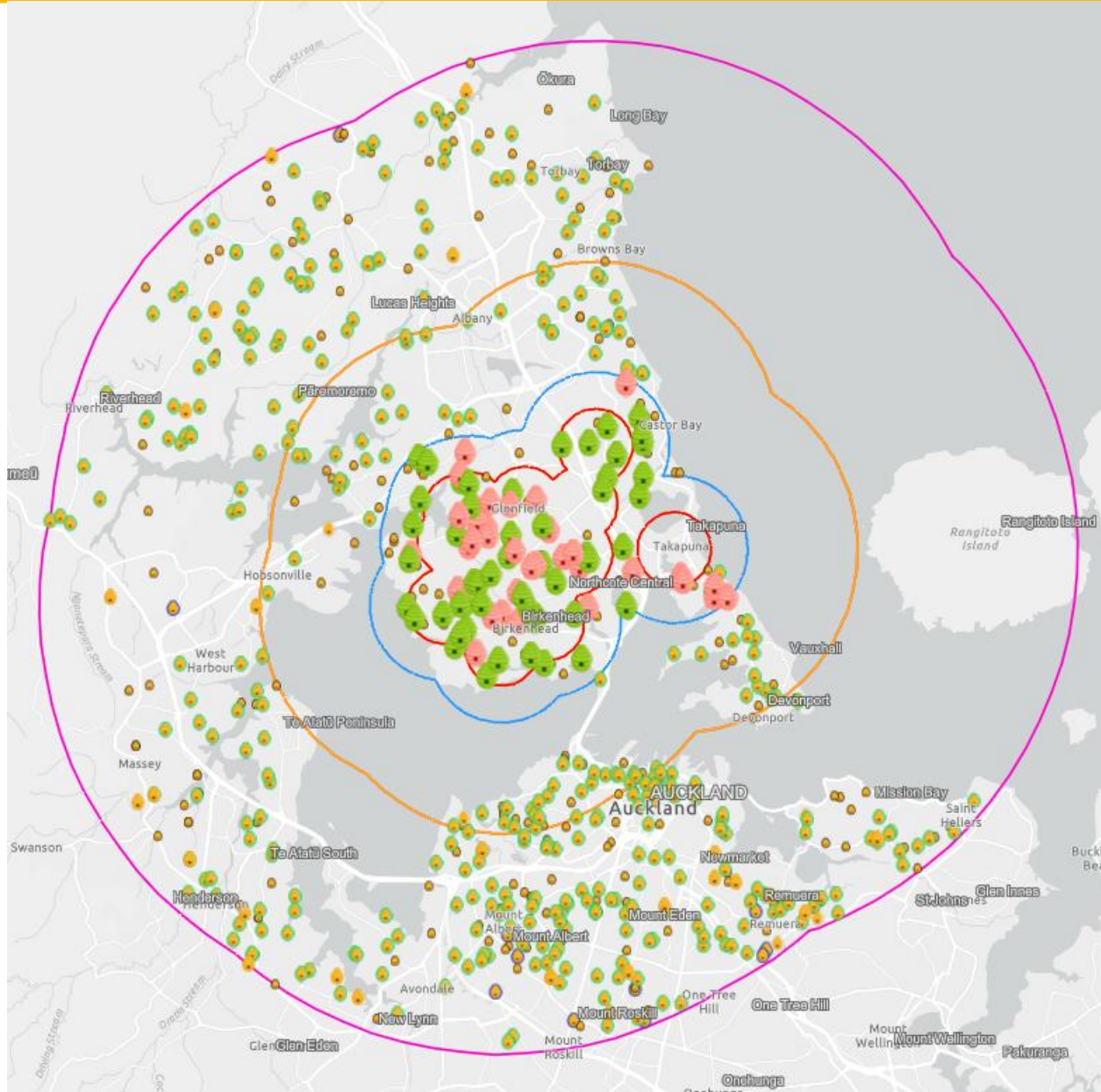
- 2 queens trapped in November 2025
- First worker trapped mid-November 2025 (same time at public trap catches)
- Good for workers
- Low queen catch rate
- Highly dynamic (support nest tracing + not to kill workers)
- Frequency adjusted seasonally



Trap samples



Apiary monitoring



Trap samples

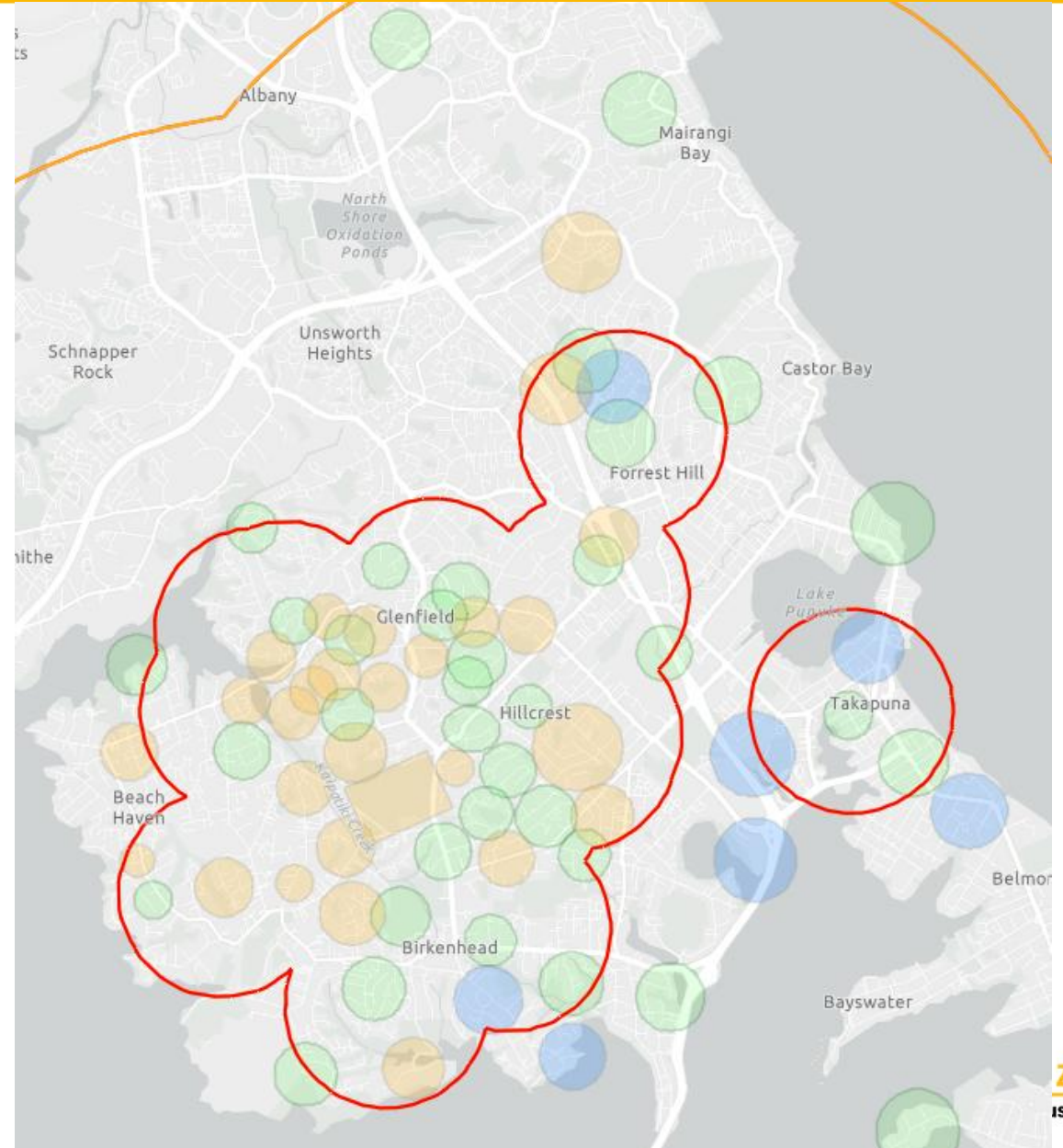
Apiary Observations



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Manatū Ahu Matua

Nest Tracing - “we don’t kill hornets – we kill nests”

- Nest Tracing Areas of interest from worker detections (trapping or observations)



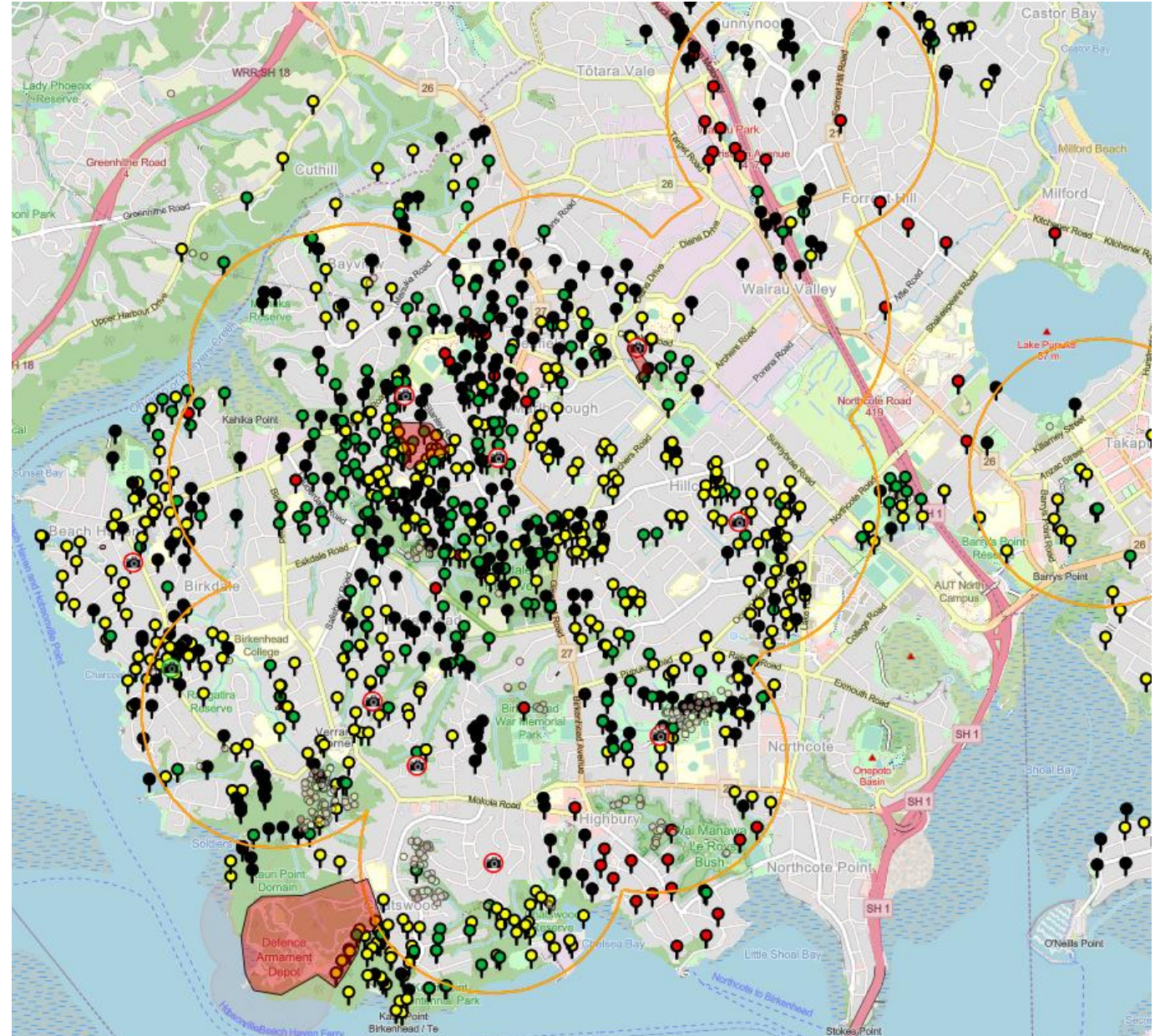
Nest Tracing - “we don’t kill hornets – we kill nests”

- Nest Tracing Areas of interest from worker detections (trapping or observations)
- *get hornets onto lure and feeding*
- Remove or open containment traps
- Install lure stations and observe



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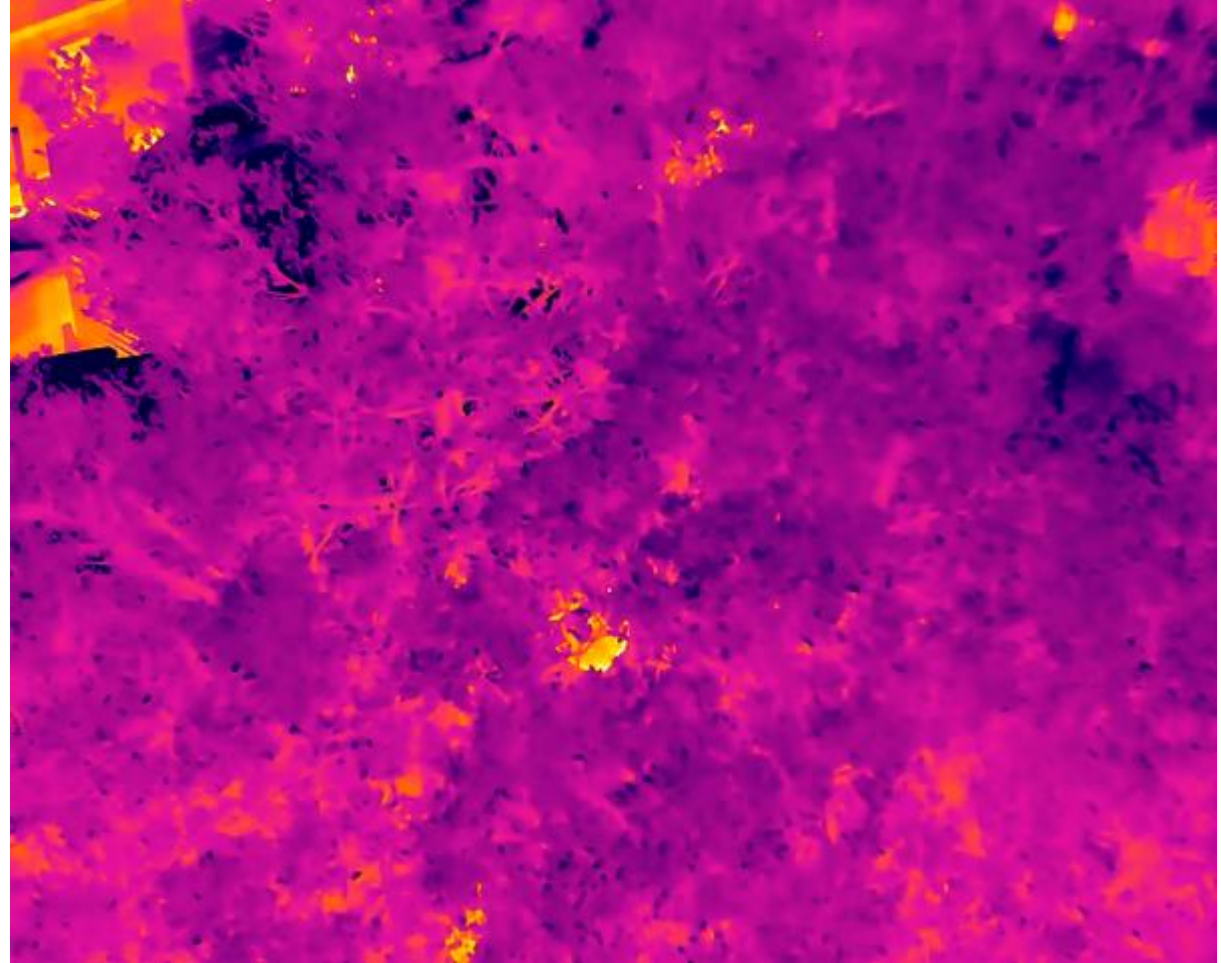
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 - *get hornets onto lure and feeding*
- Remove or open containment traps
- Install lure stations and observe
 - *focused area for nest finding*
- Lure station movements
- Hornet flight direction and time
 - *locate the nest...nest finding*



Nest Finding



Nest Finding



Nest Control



Nest Control



Diagnostics and Analysis

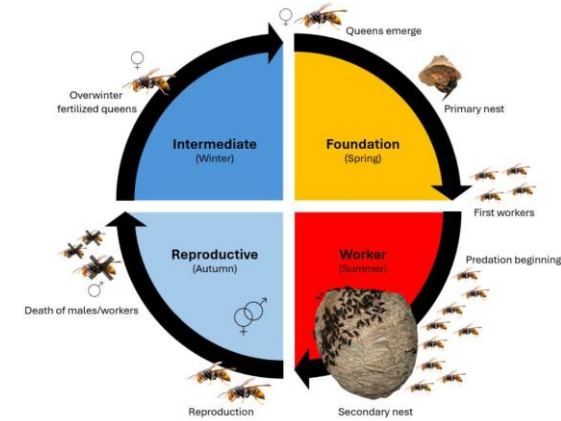


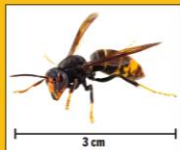
Figure 1. Life cycle of *Vespa velutina* (PHEL Entomology)



Thanks for listening

Look out for yellow-legged hornets

Report a suspected finding to
Biosecurity New Zealand
report.mpi.govt.nz | 0800 80 99 66



 **Biosecurity New Zealand**
Ministry for Primary Industries
Manatū Ahu Matua

Te Kāwanatanga o Aotearoa
New Zealand Government



Chris Z
FOT