



Mobile data capture and reporting for Biosecurity at Auckland Airport

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Asset Information Team

29th March 2017





Billions

Of dollars generated



20,000

Jobs on and around the airport



18 Million

Passenger movements through Auckland Airport in the last year



28

Airlines Fly directly



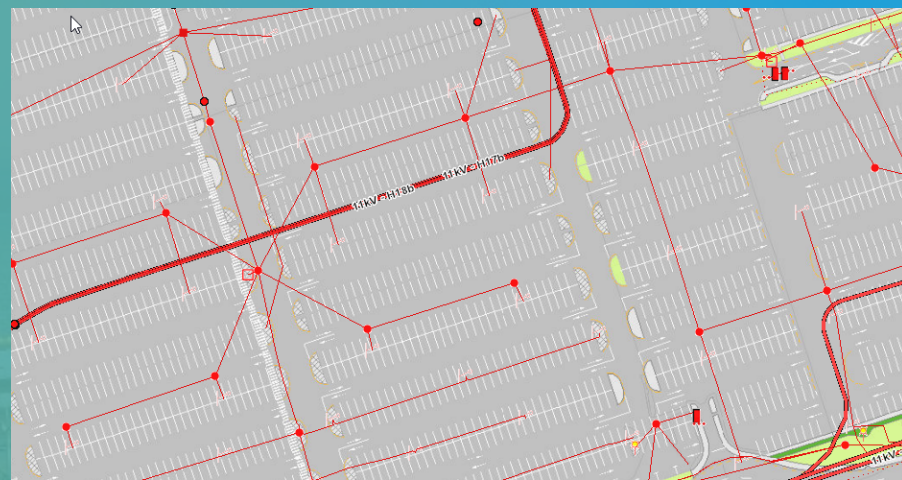
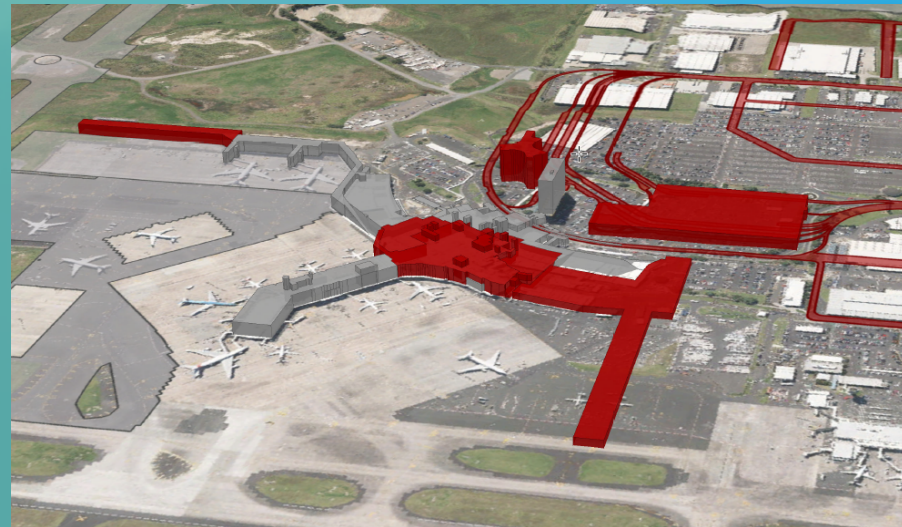
45

International Destinations



92

Percent freight trade by weight



Auckland Airport: Existing approved noise areas

Existing approved aircraft noise areas as set out in the District Plan

HOW TO USE THIS MAP

Find an address:

- Enter the address in the search box on the map

Explore the noise areas:

- Click on a noise area to see its description
- Use the +/- controls to zoom in & out of the map

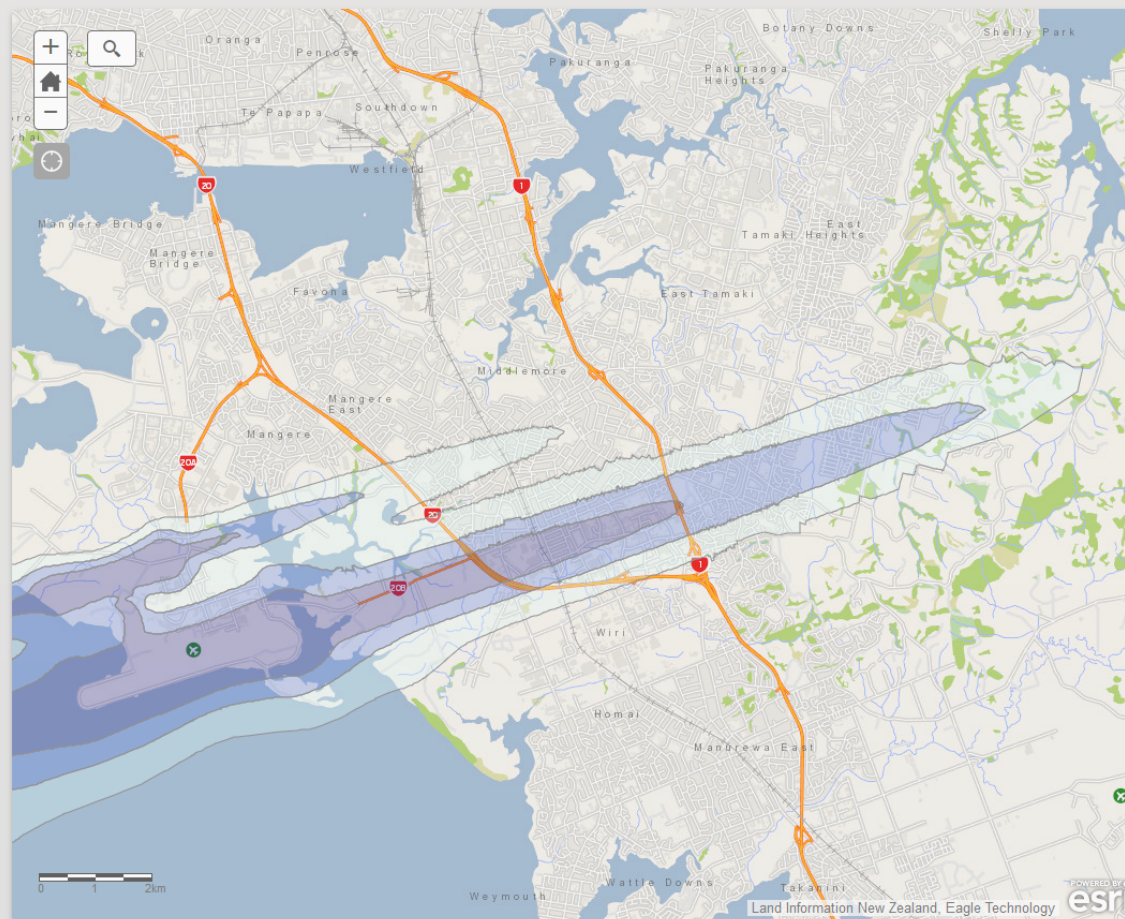
To see the proposed noise areas click on this link: [proposed noise areas map](#)

NOTE

Noise contours show an average of noise over a 24 hour period in areas assigned by the Council's District Plan to be one of three zones.

- High Noise Area (65dB)
- Medium Noise Area (60dB)
- Low Noise Area (55dB)

By way of comparison, ambient household noise is considered to be between 40 and 50dB.



Existing noise areas

- High noise area
- Medium noise area
- Low noise area

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Why check for mosquitos?

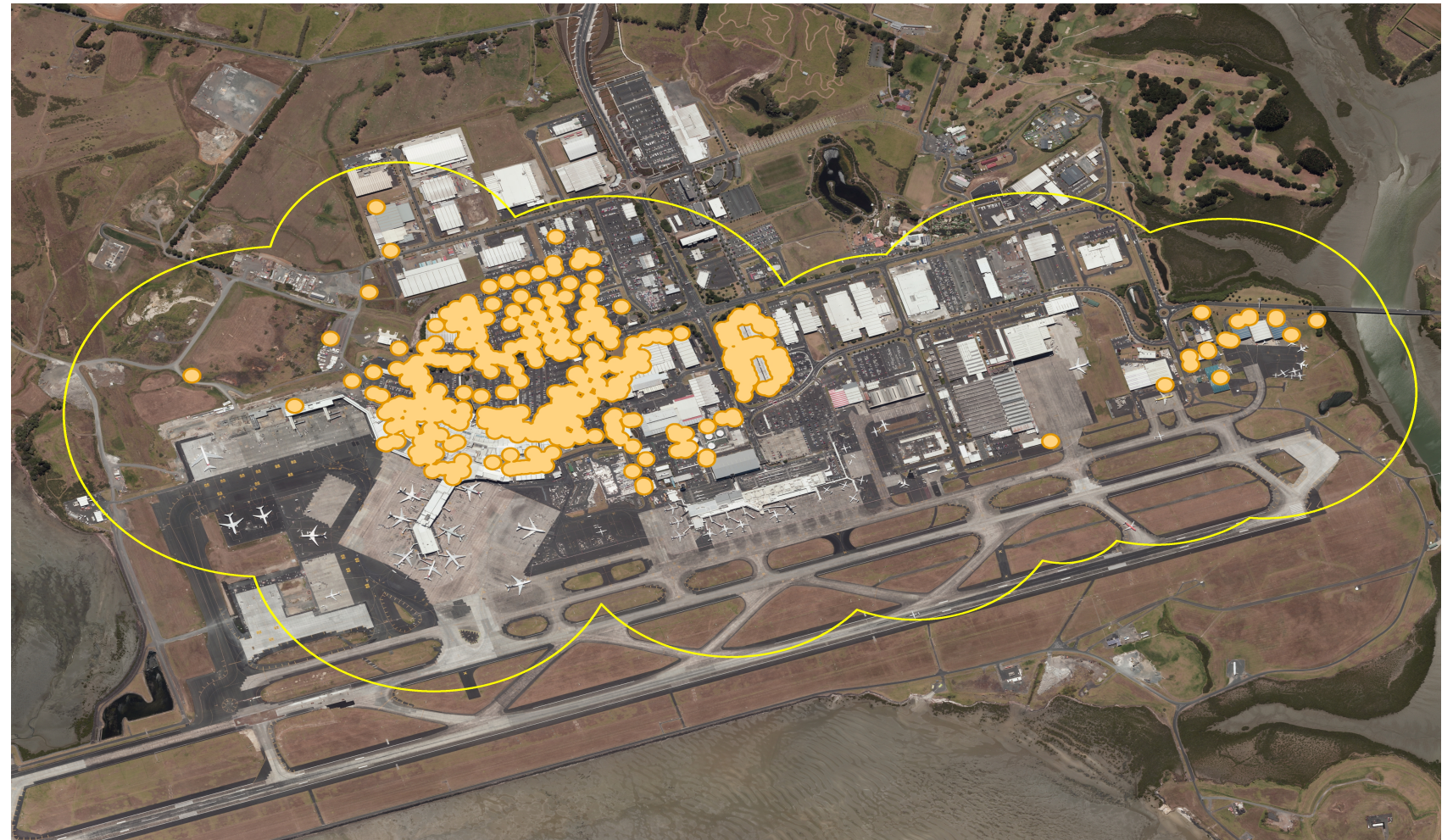
- ❖ **Biosecurity**
- ❖ **Operational necessity**



How to capture a Mosquito

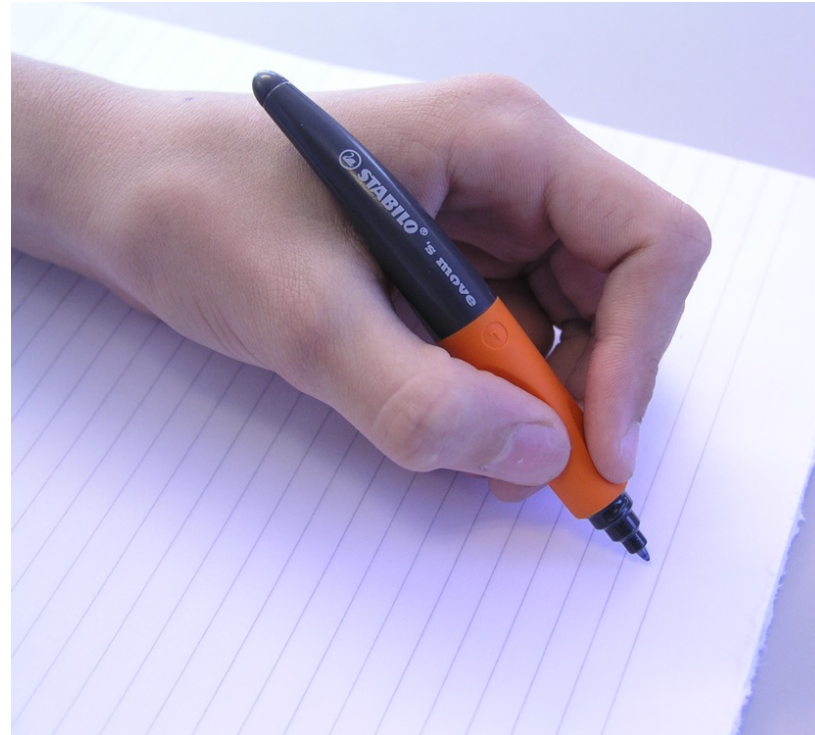


The size of the task



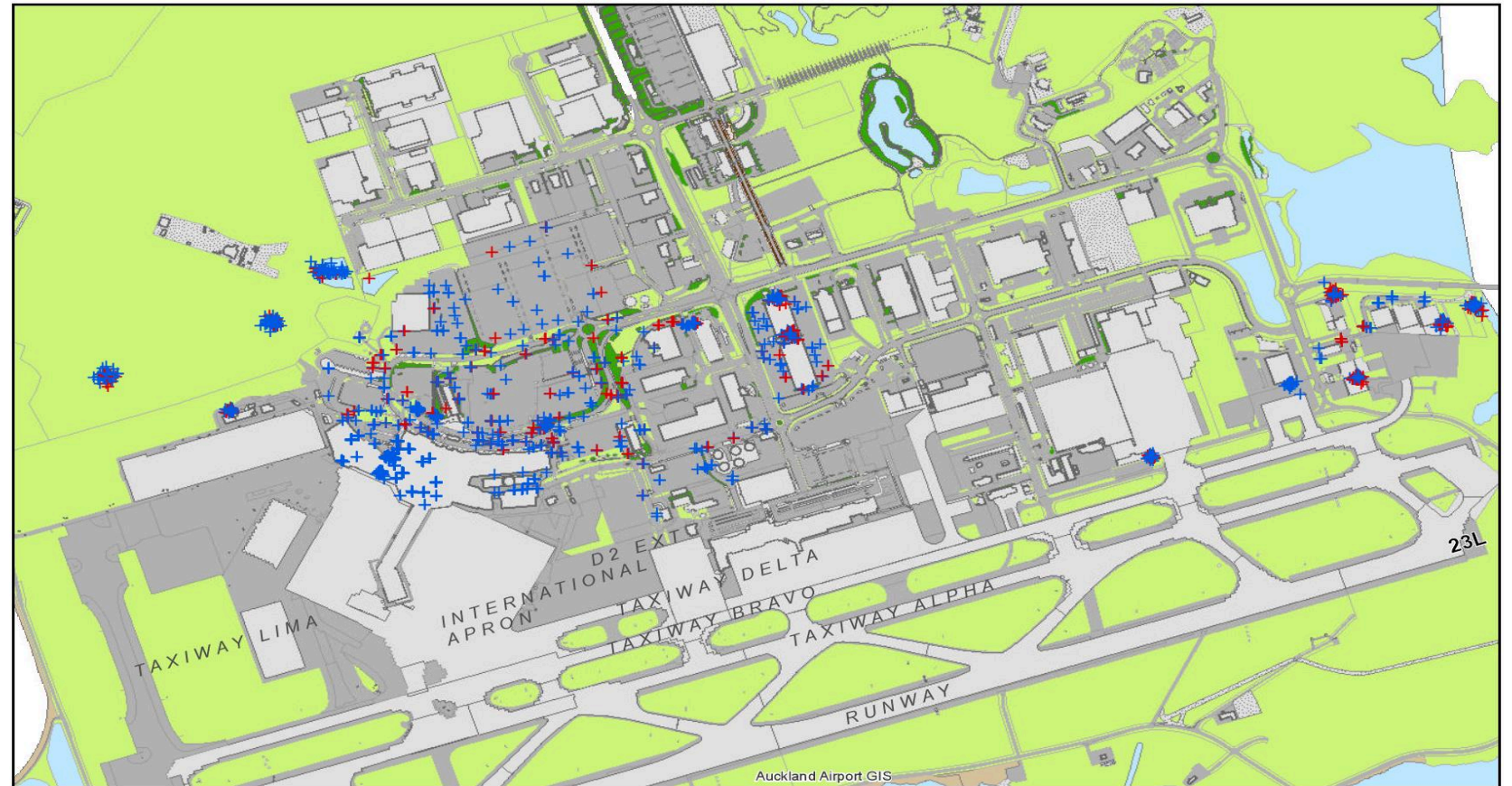
Where have we come from?

9



- ❖ Paper and Pen survey
- ❖ Converted to Excel
- ❖ Laboratory samples
- ❖ GPS plotting
- ❖ Reporting
- ❖ Rinse and Repeat

GPS Points and Reports



Auckland Airport
Positive and Negative Mosquito Results
June 2015 - June 2016

Legend
+ Positive
+ Negative



Requirements:

- ❖ Mobile
- ❖ Quick
- ❖ Easy
- ❖ Exportable
- ❖ Findable
- ❖ Reportable

Solution



What happens with the Information?

Download Process



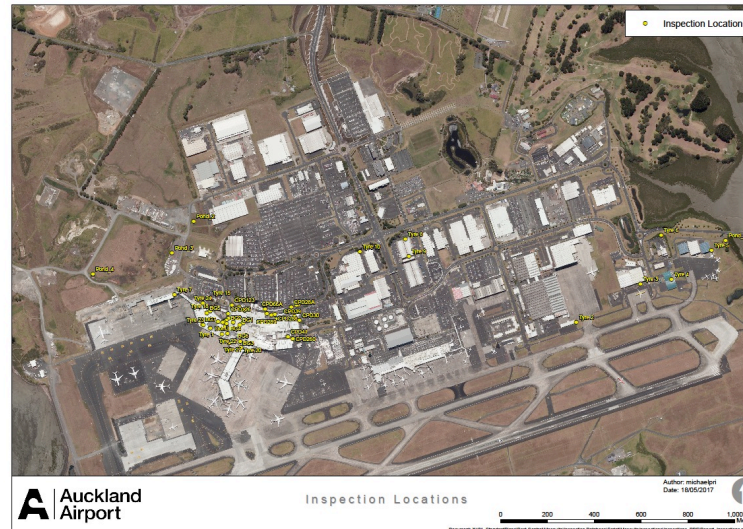
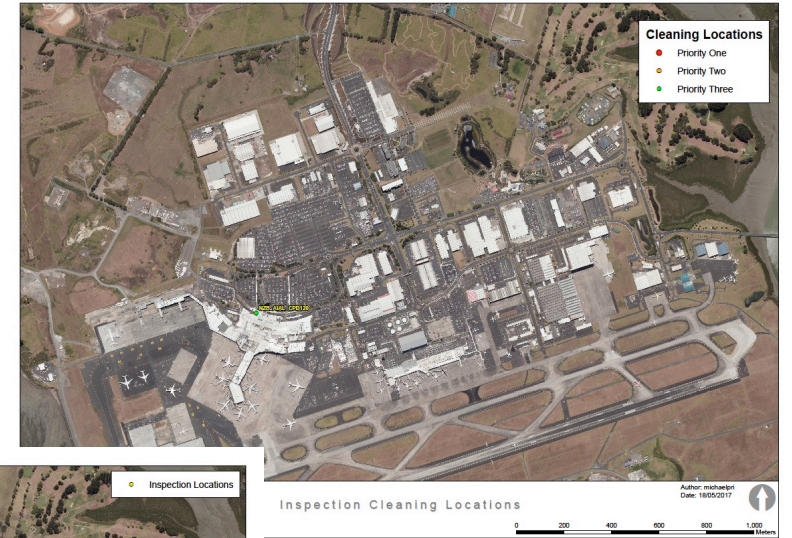
- ❖ Overnight downloads
- ❖ Processed with FME
- ❖ Emails results
- ❖ Stores information Into SDE





Results

A	B	C	D	E	F
Location	TrapType	SampleResults	TrapNights	AdditionalComments	
1	NZB_AIALPond_4	Not a Trap	positive		
2	NZB_AIALPond_3	Not a Trap	positive		
3	NZB_AIALPond_2	Not a Trap	negative		
4	NZB_AIAL_Tyre 16	Ovitrap - Tyre	negative		
5	NZB_AIAL_BG2	BG Trap - Adult	negative	3	
6	NZB_AIAL_BG1	BG Trap - Adult	negative	3	
7	NZB_AIAL_Dom1	Dominator	positive	3	
8	NZB_AIAL_BG3	BG Trap - Adult	negative	3	
9	NZB_AIAL_Tyre 19	Ovitrap - Tyre	negative		
10	NZB_AIAL_Tyre 20	Ovitrap - Tyre	negative		
11	NZB_AIAL_BG6	BG Trap - Adult	negative	3	
12	NZB_AIAL_Tyre 21	Ovitrap - Tyre	negative		
13	NZB_AIAL_BG4	BG Trap - Adult	negative	3	
14	NZB_AIAL_Tyre 22	Ovitrap - Tyre	negative		
15	NZB_AIAL_Tyre 1	Ovitrap - Tyre	negative		
16	NZB_AIAL_Tyre 17	Ovitrap - Tyre	negative		
17	NZB_AIAL_Dom2	Dominator	positive	3	
18	NZB_AIAL_Dom3	Dominator	positive	3	
19	NZB_AIAL_Tyre 18	Ovitrap - Tyre	negative		
20	NZB_AIAL_BG5	BG Trap - Adult	negative	3	
21	NZB_AIAL_BG7	BG Trap - Adult	negative	3	
22	NZB_AIAL_Tyre 23	Ovitrap - Tyre	negative		
23	NZB_AIAL_Tyre 24	Ovitrap - Tyre	negative		
24	NZB_AIAL_Tyre 7	Ovitrap - Tyre	negative		
25	NZB_AIAL_CPD173	Not a Trap	positive		
26	NZB_AIAL_CPD120	Not a Trap	negative		
27	NZB_AIAL_CPD290A	Not a Trap	positive		
28	NZB_AIAL_CPD289	Not a Trap	negative		
29	NZB_AIAL_CPD118A	Not a Trap	negative		
30					



Location Maps



Mosquito Trap Locations: NZB_AIAL_BG1

Legend
Trap Types:
● Ovi Tyre Trap
● BG Trap
● CO2 Adult Response Trap
● Dominator Trap
● Pond Trap

Page 2 of 38

This block contains a map on the left with a red dot indicating a trap location. To the right is an aerial view of the same location. Below the aerial view is a legend with five trap types: Ovi Tyre Trap (blue circle), BG Trap (red circle), CO2 Adult Response Trap (yellow circle), Dominator Trap (green circle), and Pond Trap (green circle). To the right of the legend is an illustration of a mosquito. Below the illustration is the page number 'Page 2 of 38'. At the bottom of the block is a small photograph of the interior of a trap location.

Mosquito Trap Locations: NZB_AIAL_Dom2

Legend
Trap Types:
● Ovi Tyre Trap
● BG Trap
● CO2 Adult Response Trap
● Dominator Trap
● Pond Trap

Page 10 of 38

This block contains a map on the left with a red dot indicating a trap location. To the right is an aerial view of the same location. Below the aerial view is a legend with five trap types: Ovi Tyre Trap (blue circle), BG Trap (red circle), CO2 Adult Response Trap (yellow circle), Dominator Trap (green circle), and Pond Trap (green circle). To the right of the legend is an illustration of a mosquito. Below the illustration is the page number 'Page 10 of 38'. At the bottom of the block is a small photograph of the interior of a trap location.

Mosquito Trap Locations: NZB_AIAL_Tyre 1

Legend
Trap Types:
● Ovi Tyre Trap
● BG Trap
● CO2 Adult Response Trap
● Dominator Trap
● Pond Trap

Page 12 of 38

This block contains a map on the left with a blue dot indicating a trap location. To the right is an aerial view of the same location. Below the aerial view is a legend with five trap types: Ovi Tyre Trap (blue circle), BG Trap (red circle), CO2 Adult Response Trap (yellow circle), Dominator Trap (green circle), and Pond Trap (green circle). To the right of the legend is an illustration of a mosquito. Below the illustration is the page number 'Page 12 of 38'. At the bottom of the block is a small photograph of the interior of a trap location.

Mosquito Trap Locations: NZB_AIALPond_1

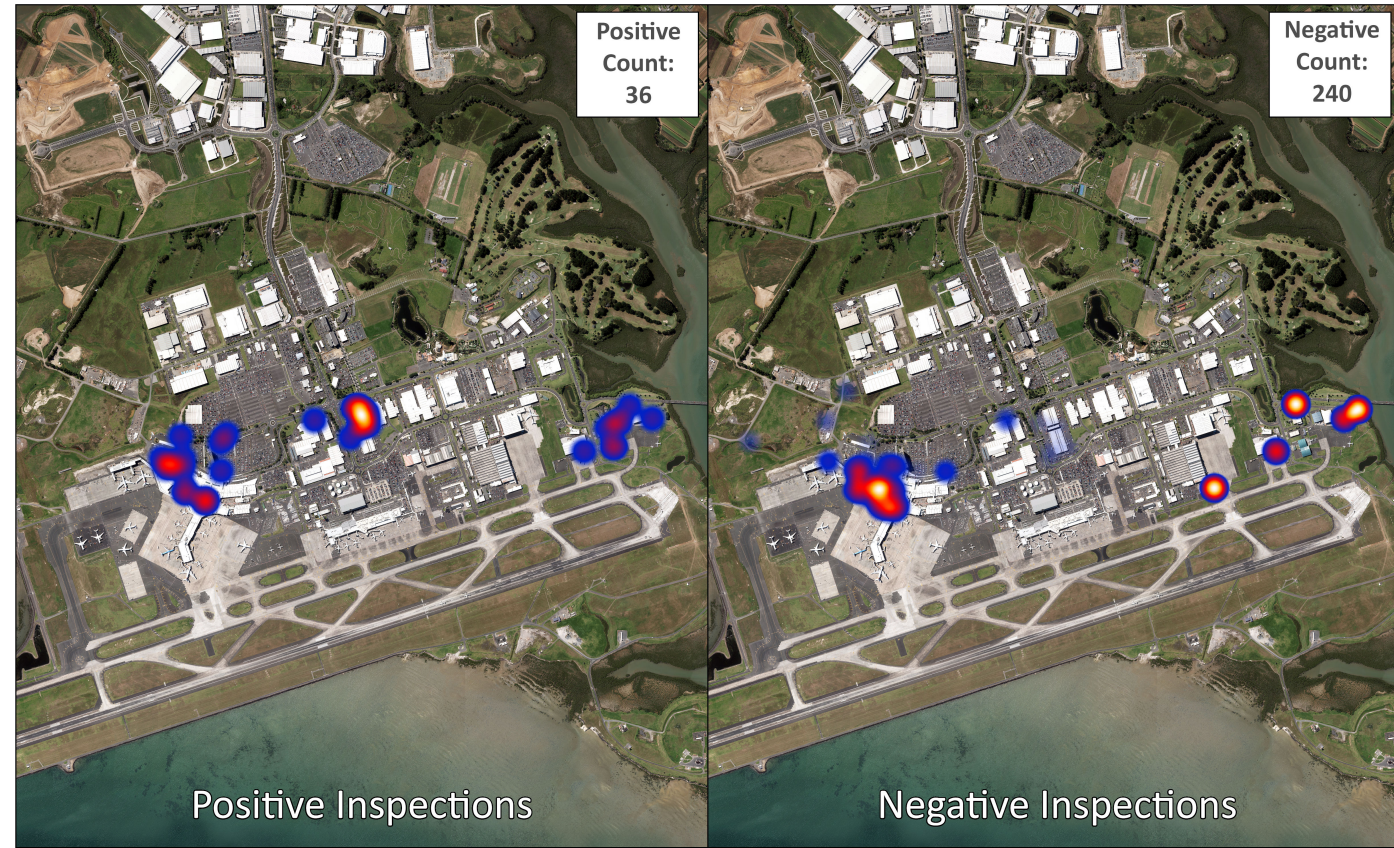
Legend
Trap Types:
● Ovi Tyre Trap
● BG Trap
● CO2 Adult Response Trap
● Dominator Trap
● Pond Trap

Page 36 of 38

This block contains a map on the left with a green dot indicating a trap location. To the right is an aerial view of the same location. Below the aerial view is a legend with five trap types: Ovi Tyre Trap (blue circle), BG Trap (red circle), CO2 Adult Response Trap (yellow circle), Dominator Trap (green circle), and Pond Trap (green circle). To the right of the legend is an illustration of a mosquito. Below the illustration is the page number 'Page 36 of 38'. At the bottom of the block is a small photograph of the exterior of a trap location.



Monthly Reporting



Mosquito Inspections
for the Month of February

Date Exported: 20/03/2017 3:34 p.m.
Author: michaelpri



File Path: X:\01_StandardPlans\Pest Control\Mosquito\Positive and Negative Mosquito Results\MosquitoInspectionReport.aprx



Yearly Reporting



DETAILED DISCUSSION OF 2016/17 ACTIVITIES.

A. Insects/Mosquitoes.

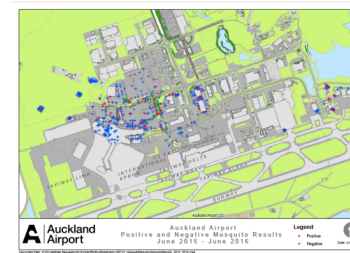
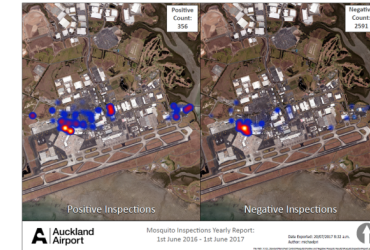
SMS New Zealand BioSecure undertakes a surveillance programme on behalf of Auckland Airport. This programme includes surveillance of traps, ponds and cess-pits for evidence of mosquito activity – both adult species and larvae.

Climatic Conditions Overview

This summer has seen a significant increase in humidity and wet conditions highly suitable for mosquito breeding reflected in a higher number of local species related interceptions.

Southern Monitoring Surveillance Activities:

Southern Monitoring Services have provided the Vector Control services at Auckland Airport in the last 12 months. We are now receiving consistent data over time so as to better review and map at-risk areas. A copy of the surveillance results for the last and previous 12 months results is set out below:

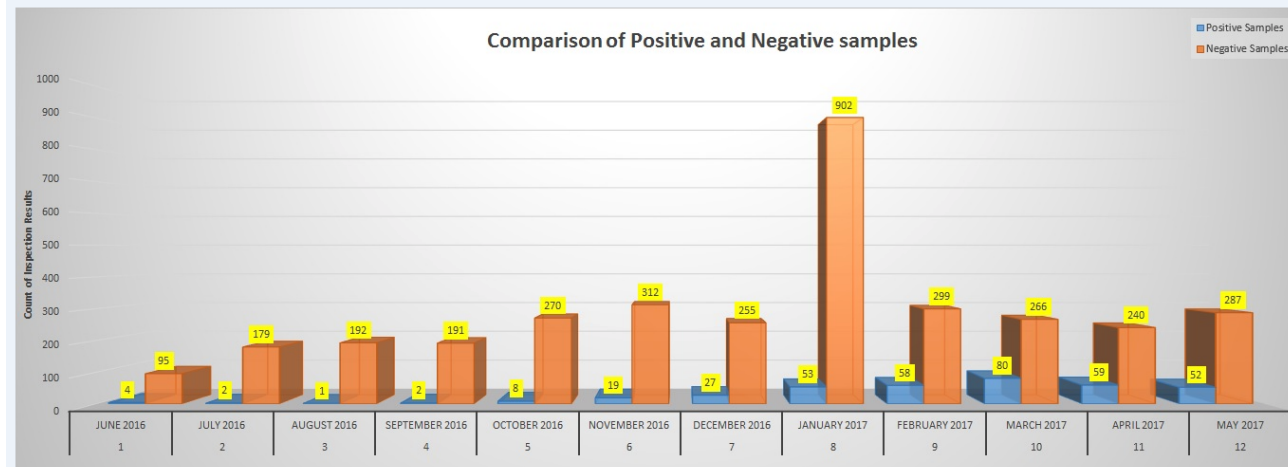


Zone Surveillance:

SMS New Zealand BioSecure surveillance programme has divided the Airport into eleven zones which are monitored according to their risk profile vs frequency so as to provide for a more robust control programme. Weekly surveillance reports and bi-monthly summary reports provide detail of any recommendations and specific surveillance activities carried out. All specimens collected have been identified by the New Zealand BioSecure Entomology Laboratory.

Even though there was an increase in the number of cesspits surveyed and with conditions being more favourable for mosquito breeding during the 2016/2017 season than in 2015/2016, the number of larvae found was less. It is believed that is due to the combination of both 'wet events / flushing of drains' and the cleaning of cesspits by City Parks.

Trap Surveillance – Adult:





An aerial photograph of the Auckland Airport terminal and surrounding airfield. The terminal is a large, modern building with a white facade and a complex roof structure. Several aircraft are parked at gates. In the background, there are runways, taxiways, and a body of water. The text "Thank you from the Auckland Airport Asset Information Team." is overlaid in the center of the image.

**Thank you from the
Auckland Airport
Asset Information Team.**

