



# How to deal with pesky (and not so pesky) pests

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**Fisheries New Zealand**

Tini a Tangaroa



**Te Uru Rākau**

Forestry New Zealand



**Biosecurity New Zealand**

Ministry for Primary Industries  
Manatū Ahu Matua



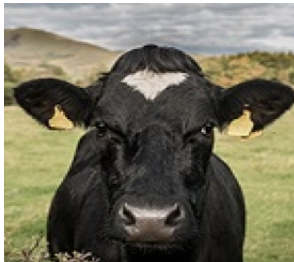
**New Zealand Food Safety**

Ministry for Primary Industries  
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# What is an Incursion Response?

When we find a pest or disease we investigate it, assess the risk and then decide how best to respond

The big three



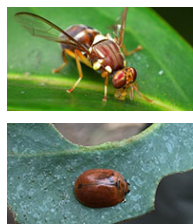
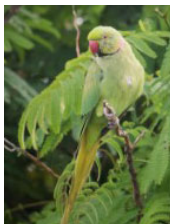
Mycoplasma Bovis



Myrtle Rust



Bonamia Ostreae



And many more!



# Incursion Response Management

## Historic Issues:

- Inconsistent approach across Ministry
- Varying data quality, format and capture methodologies
- Often non-spatially captured
- Data silos
- Requirements gathering has often been compartmentalised for single aspects of a response (Frontline staff vs Labs)
- Knowledge delays in report writing
- Initial panic, rushed decision making and data from various sources coming in – not always relevant

# Complexity of Responses

- Where?
  - Our people, places of interest, infrastructure & equipment, & the incursion
- Requirements Gathering
  - What information do we to manage the situation
- Task Management
  - Who needs to be where, doing what, to get this thing under control
- Live Data, Reminders and Tasking Prompts
- Situational Awareness



# Tiaki

*(verb) (-na) to guard, keep*

ArcGIS for Incursion Management



# Tasking

The screenshot displays the 'My Projects > Dev - TIAKI: Workforce' interface. On the left, a list of 19 assignments is shown, each with a status icon, title, location, priority, and assignee. The right side features a map view of a forested area with several task locations marked by colored circles and labels. A 'Clustering' toggle is visible at the bottom of the map.

**Assignments List:**

Status	Due	Priority	Assignee	Sort
19 assignments				
Collect Host Information	Place: WK-3296-0061			
Collect Key Decision Maker Information	Makomako, Te Mata	High	19 days ago	
Collect Key Decision Maker Information	Place: WK-3296-0061			
Issue Movement Permit	Place: WK-3295-0124	High	a month ago	
Serve Restricted Place Notice	Place: WK-3295-0124	High	a month ago	
Issue Movement Permit	Place: WK-3295-0124	High	a month ago	
Issue Movement Permit	Place: WK-3295-2054-8001	Critical	a month ago	
Serve Restricted Place Notice	Place: WK-3295-2054	Critical	a month ago	
Issue Movement Permit	Place: WK-3295-0124-8001	High	a month ago	

**Map View:**

Map showing task locations with labels: FMD2018-RC-CP-0001, FMD2018-RC-CP-0016, FMD2018-RC-TS-0010, FMD2018-RC-TS-0009.

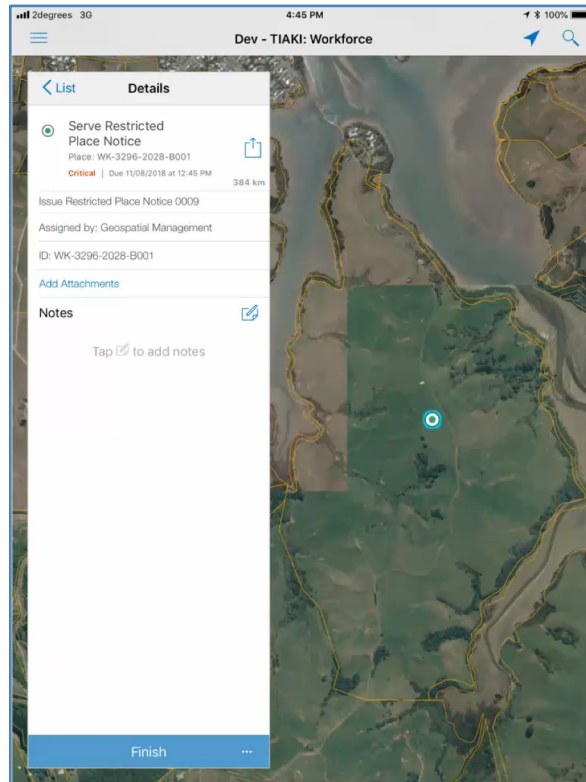
Clustering: ☐

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esri



# Tasking



# Capturing & Maintaining Data

The screenshot displays the 'DEV - TIAKI: Master Data WebApp-Edit' interface. On the left, a list titled 'Dev - Disestablish Signage Inbox' contains several entries with IDs like 'FMD2018-PC-SG-0007'. The main area shows a satellite map with various markers. A legend on the right categorizes these markers: Treatment Sites (Operational/Disestablished), Road Block (Operational/Disestablished), Checkpoint (Operational/Disestablished), and Signage (Operational/Disestablished). The bottom of the interface has 'List', 'Map', and 'Refresh' buttons.

1 – 1: link office locations to administrative areas

1 – M: e.g. Vehicle logs visiting Checkpoints, Legal Instruments on properties

M – N: Tracing risk events between multiple properties

Utilize Survey123 “inbox” to update attribution i.e. Established checkpoint changed to disestablished



# Capturing & Maintaining Data

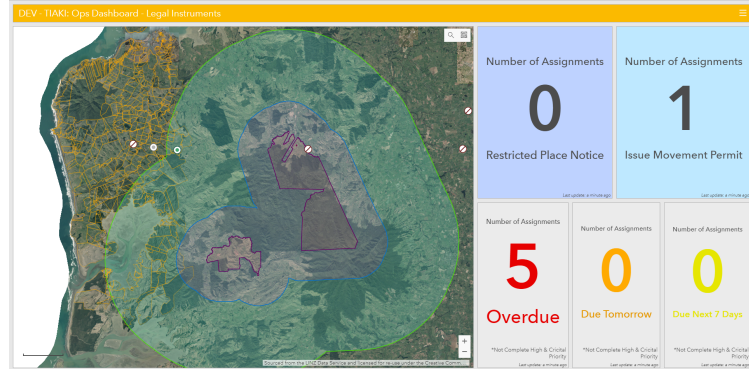
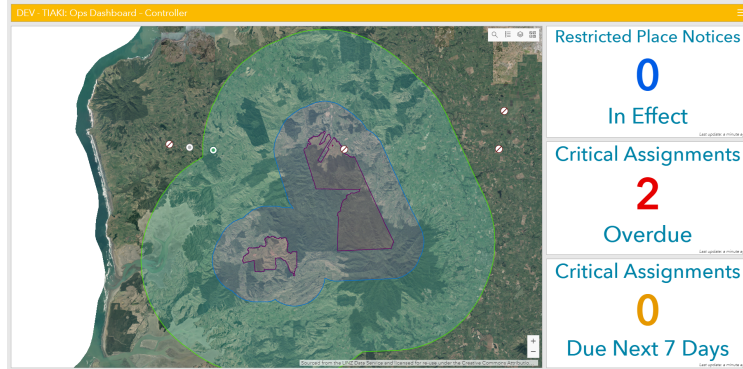
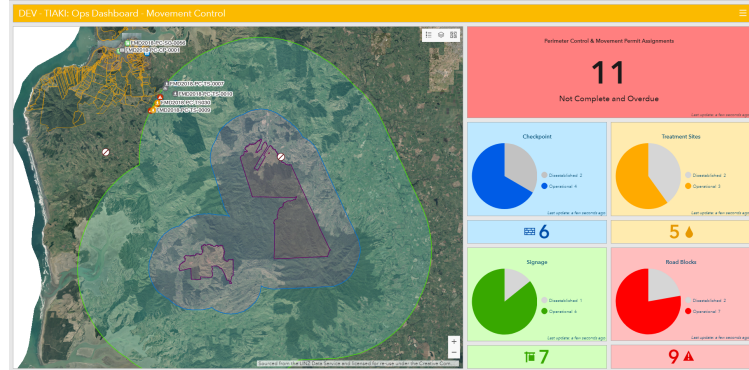
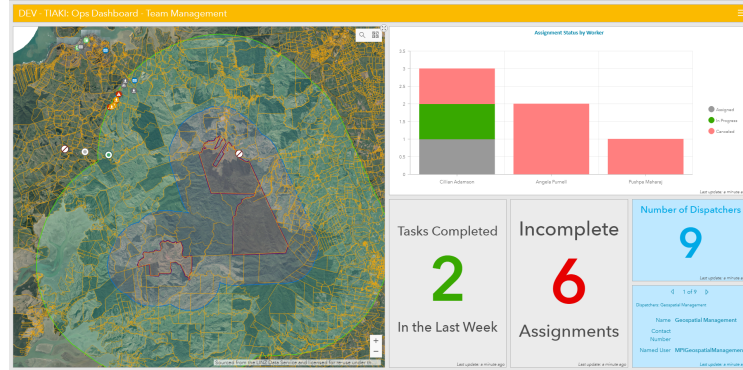
The screenshot displays the 'DEV - TIAKI: Master Data WebApp-Edit' interface. The top bar shows the 'Bioscience New Zealand' logo, the title 'DEV - TIAKI: Master Data WebApp-Edit', and a status bar with '2degrees 3G', '2:43 PM', and 'Workforce is Actively Using Your Location'. The main map area shows a coastal region with a green outline indicating a selected 'Area' of 119 hectares. A 'Details' panel on the left lists fields for 'Area', 'Place ID', 'Address', 'Region', 'Place Type Primary', 'Place Type Secondary', 'Place Response', 'Associated Place', and 'Dairy Company Affiliation'. A 'Layer List' on the right shows various operational layers, including 'Treatment Sites', 'Road Block', 'Checkpoint', 'Signage', 'Place: Restricted Place Status', 'Place: Farms', 'Controlled\_Area\_Notice', 'Vehicle Log: Treatment Sites', 'Vehicle Log: Checkpoint', 'Movement Permits', 'People', and 'Restricted Place Notice'. A 'Place: Farms' data entry form is open in the center, with fields for 'Place ID', 'Address', 'Region', 'Place Type Primary', 'Place Type Secondary', 'Place Response', and 'Associated Place'.

Role based permissions for data editing

Desktop bulk loading of data

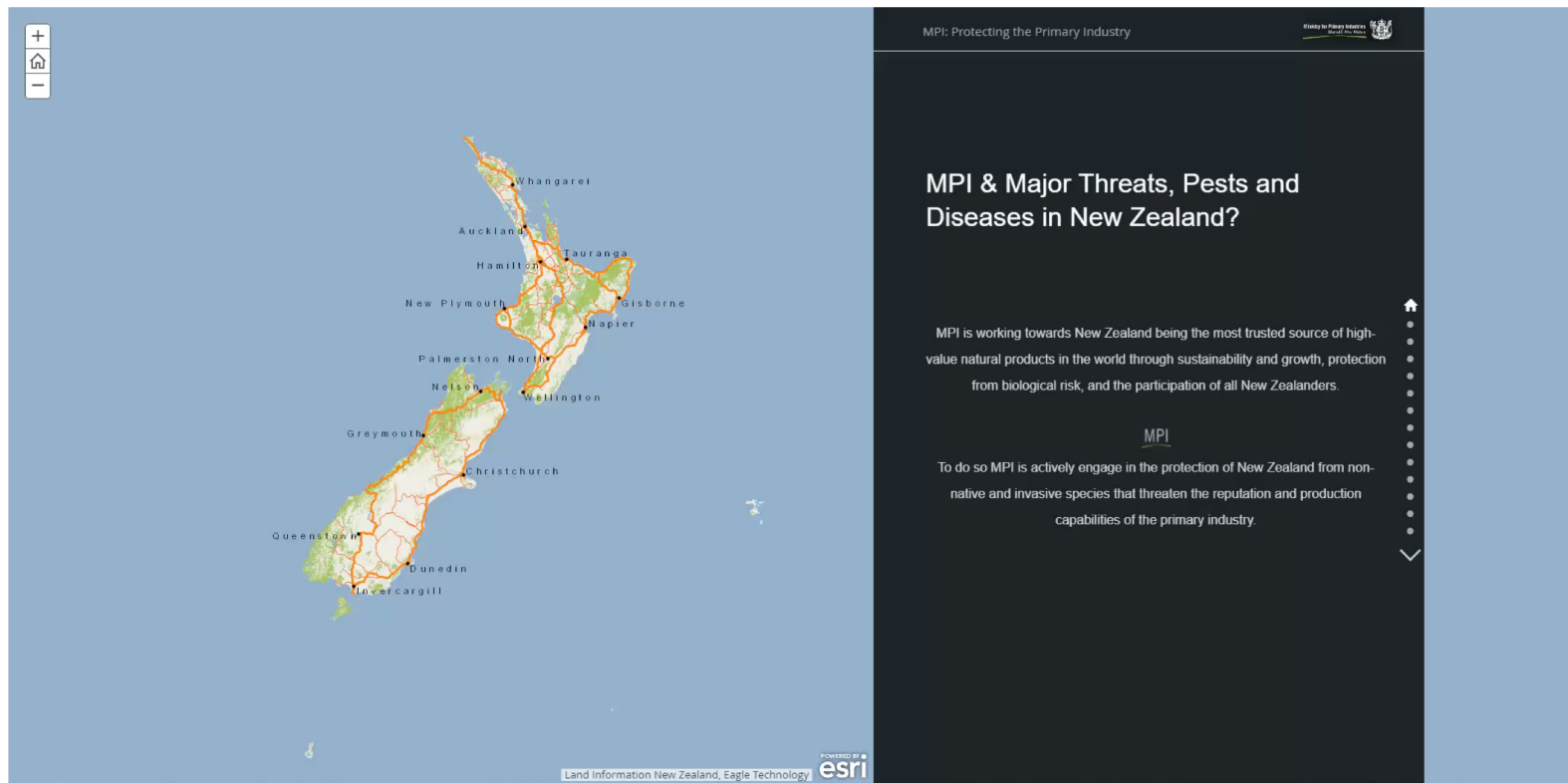
Field based updates

# Bespoke Reporting





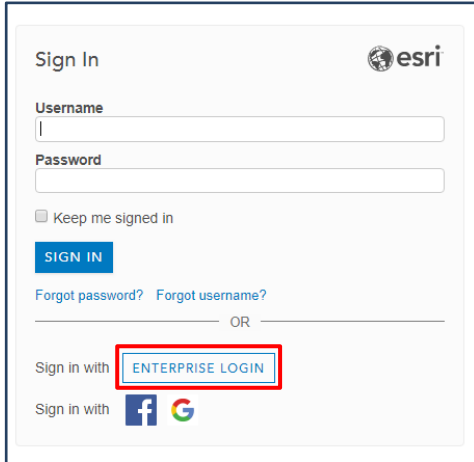
# Telling the Story



# Learnings so far



AGOL Membership Expansion



AGOL Active Directory Federation



Clone AGOL items across  
“environments”  
(Dev, Test, UAT & Prod folders)



Data schematic documentation



Regular local data back up  
& restore process

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Thank you