



+ Emergency Management Solutions +

# DARyL & ATOC Viewer: Your Emergency Superheroes!

Tackling Cyclone Vaianu and Beyond 



24 April 2026

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Tina Fong & Omid Khazaeian



# ATOC: Keeping Auckland Moving

The Auckland Transport Operation Centre (ATOC) is a 24/7 joint venture between AT and NZTA. They monitor the Auckland roading network and State Highways from Northland to Rotorua.

- Real-time Traffic Management
- Incident Response
- Collaboration with emergency services
- Event and emergency management





# Problem #1

# Information Overload

The life of an ATOC worker means managing data from many sources:

- RiskShield
- Milestone
- SCATs
- Command Centre
- Dynac
- Fusion
- Journey Planner
- TREIS
- Google
- and many more...





# Problem #2

## Is that road closed?

Understanding unplanned road closures is critical, especially during emergencies.

*Where we started*

### **No source of truth**

No trusted & accessible spatial view of unplanned road disruptions during emergencies

### **Manual processing**

Critical decisions relied on phone calls, spreadsheets, and manual updates

### **Staff time lost**

Operational teams spent too much time on data gathering

### **Customer uncertainty**

Customers and emergency responders faced uncertainty and delays





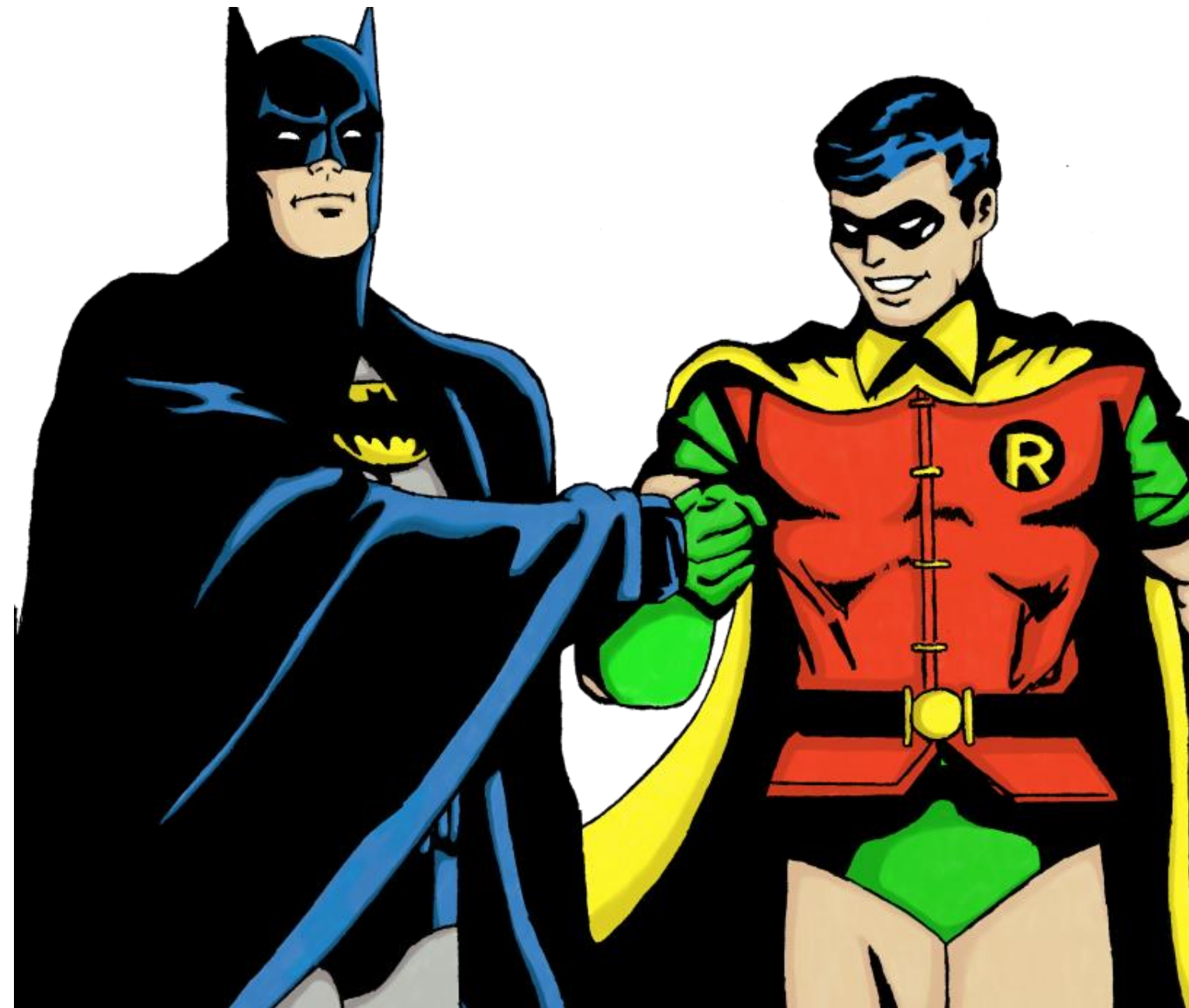
# The Dynamic Duo in Action

Two powerful GIS tools working together to enhance situational awareness and optimize network management.

## ATOC Viewer

Centralised map showing all network data in a single place.

- Life data feeds
- Asset data
- PT information



## DARyL

(Damage Assessment Real Time Locator)

- Frequently updated (every 30–60min) **unplanned** road disruptions from our roading contractors.

# Demo

# Background

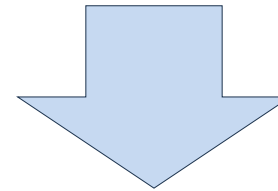
**Google Maps**

Manual update

Time-consuming

Ad hoc update

Data limitation



**ATOC GIS Viewer**

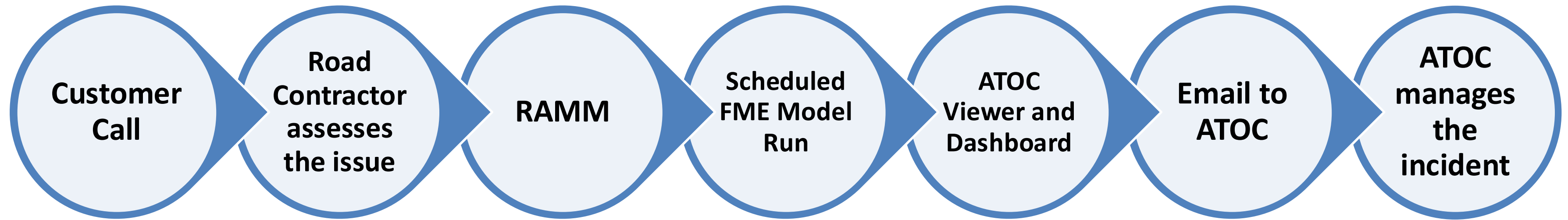
One-view consolidation

Less human-intervention

Scheduled update

improved data accuracy

# Demo





New  
New

BLOCK

Delete

Archive

Reply

Reply all

Forward

Schedule with Meeting Copilot

Chat

Share to Teams

Teams

Sweep

Move

Move

Rules

Quick steps

Read / Categorize

Unread

Flag

Tags

Pin

Snooze

Policy

Print

Print

More apps

PhishAlarm

Add-ins

Viva Insights

Discover groups

Find

Undo

Undo

Copilot

Focused

Other

Other Emails (19)

Amy Liu (AT), Garry Verma (AT); Ania Biazik (AT), Garry...

Today

IC

Internal Communications (AT)

Let's Talk AT - April

Kia ora e te whānau, Please join us for Let's Talk...

Tue 4/14/2026 11:00 AM - 12:...

No conflicts

RSVP

AD

AT Service Desk

Congratulations - AT Shout Out Award

Congratulations Omid The Parking Design tea...

AskGIS@at.govt.nz

New Road Status Events from RAMM

New Road Status Events Script Run Date: 07/04...

C

Canva

Your login code is 782079

Enter 782079 in the next 10 minutes.

Jl

Julian Inskip

Julian Inskip shared "AT\_DigitalTw...

Julian Inskip invited you to view a file Hi all. Her...

Michelle Plank (AT)

Please welcome John Montgonterie

Hello, We're really pleased to welcome Jo...

Tony Aitken (AT)

Patronage Data Status - 7th April, 20...

FYI – some of you may not be aware but ...

AW

Angie Worsley

Training Course Certificates & Feedb...

And this time with the certificates attached! Th...

New Road Status Events from RAMM

Summary by Copilot

AskGIS@at.govt.nz

To: Ask GIS (AT); Jovanna Leonardo (AT); Omid Khazaeian (AT); Alastair Grimson (AT); Nick Winder (AT); Jordan Smiley (AT); James Minton; +2 others

Tue 4/7/2026 1:04 PM

New Road Status Events

Script Run Date: 07/04/2026

Script Run Time: 13:02:31

|       | Closed | Restrictions Apply | Open (within last 30 days) | Total |
|-------|--------|--------------------|----------------------------|-------|
| New   | 1      | 0                  | 0                          | 1     |
| Total | 4      | 22                 | 8                          | 34    |

| Status               | Location & Road Type                                  | Entered             | Previous Status | Contractor                 | Contractor Area | Contract & Dispatch ID | Asset           | Fault    | ATOC Link            |
|----------------------|-------------------------------------------------------|---------------------|-----------------|----------------------------|-----------------|------------------------|-----------------|----------|----------------------|
| RDSTAT - Road Closed | Falls Rd (Warkworth), Warkworth (Secondary Collector) | 07/04/2026 12:33:16 | New             | Downer New Zealand Limited | North Rural     | 932-81628              | Emergency Works | Flooding | <a href="#">Link</a> |

Reply

Reply all

Forward

# DARyL: The Integrated FME Solution

Alex Prior | Locus Global

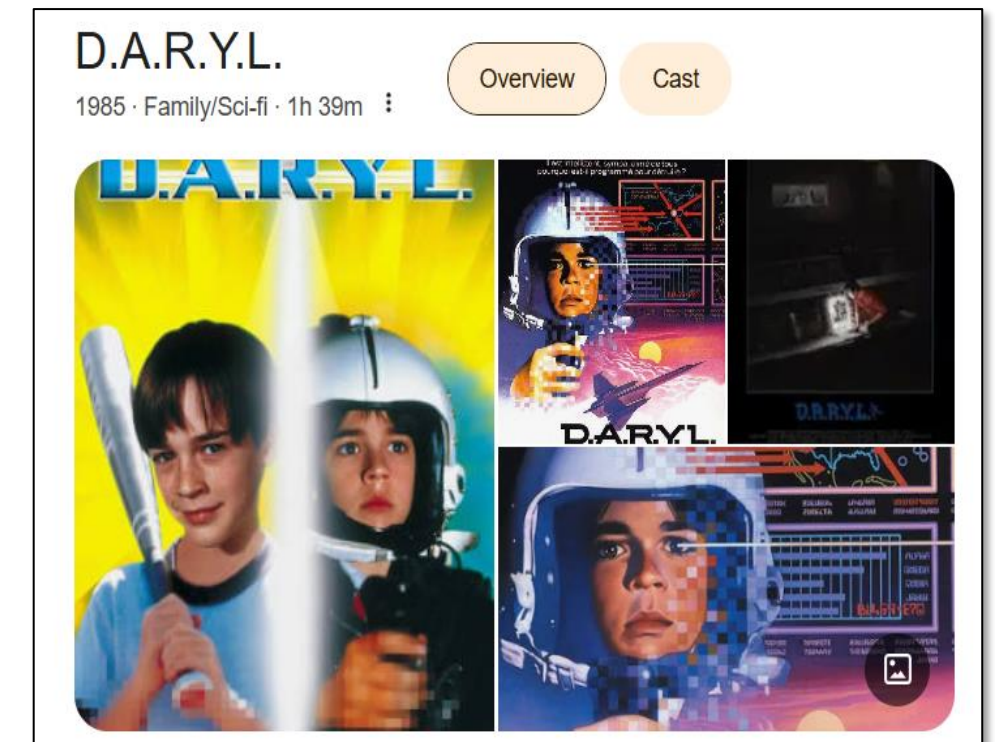




# DARyL Overview

- **The Name:** Damage Assessment Real-Time Locator
- **The Engine:** FME solution automated via FME Flow
- **The Pipeline:** Extracts unplanned road closures from Thinkproject AWM to Esri Enterprise GIS
- **The Goal:** Fully automated, continuous data integration

Has anyone heard of this???



# Asset & Work Manager (RAMM)

- **The Data Source:** Thinkproject Asset & Work Manager (AWM / RAMM)
- **The Workflow Trigger:** Network incidents logged as a Dispatch
- **Live Field Updates:** Contractors submit Progress Notes with road statuses, timings, spatial data, and attachments
- **Integration Method:** FME connects directly via Thinkproject **REST APIs**





# Asset & Work Manager (RAMM)

ASSET & WORK MANAGER

AMDS AT Testing

5

AE

Menu

Map

Open Dispatches

Dispatch Detail - #931/46782 - Dispatched

Call Type

Public Call

Priority

High / Urgent

Fault

Missing Markings

Assigned To

Programme

Programme Category

Dayworks

No

Location & Dimensions

HINEMOA ST, NORTH SHORE, Primary Collector

Reference, Multimedia & Customer Details

Analysis

Response

Progress Notes

2 progress notes

Money

Assessments

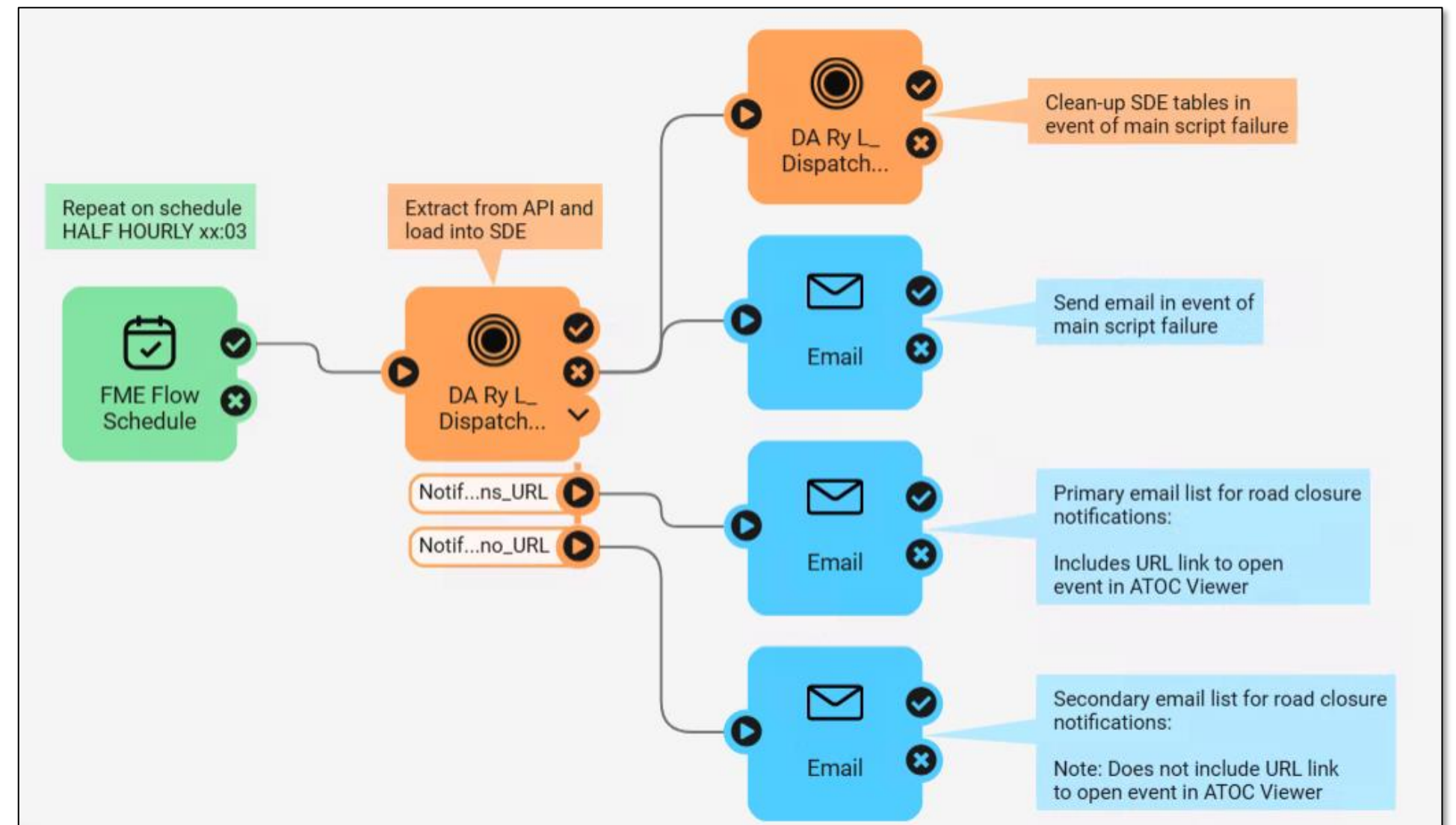
Asset Actions

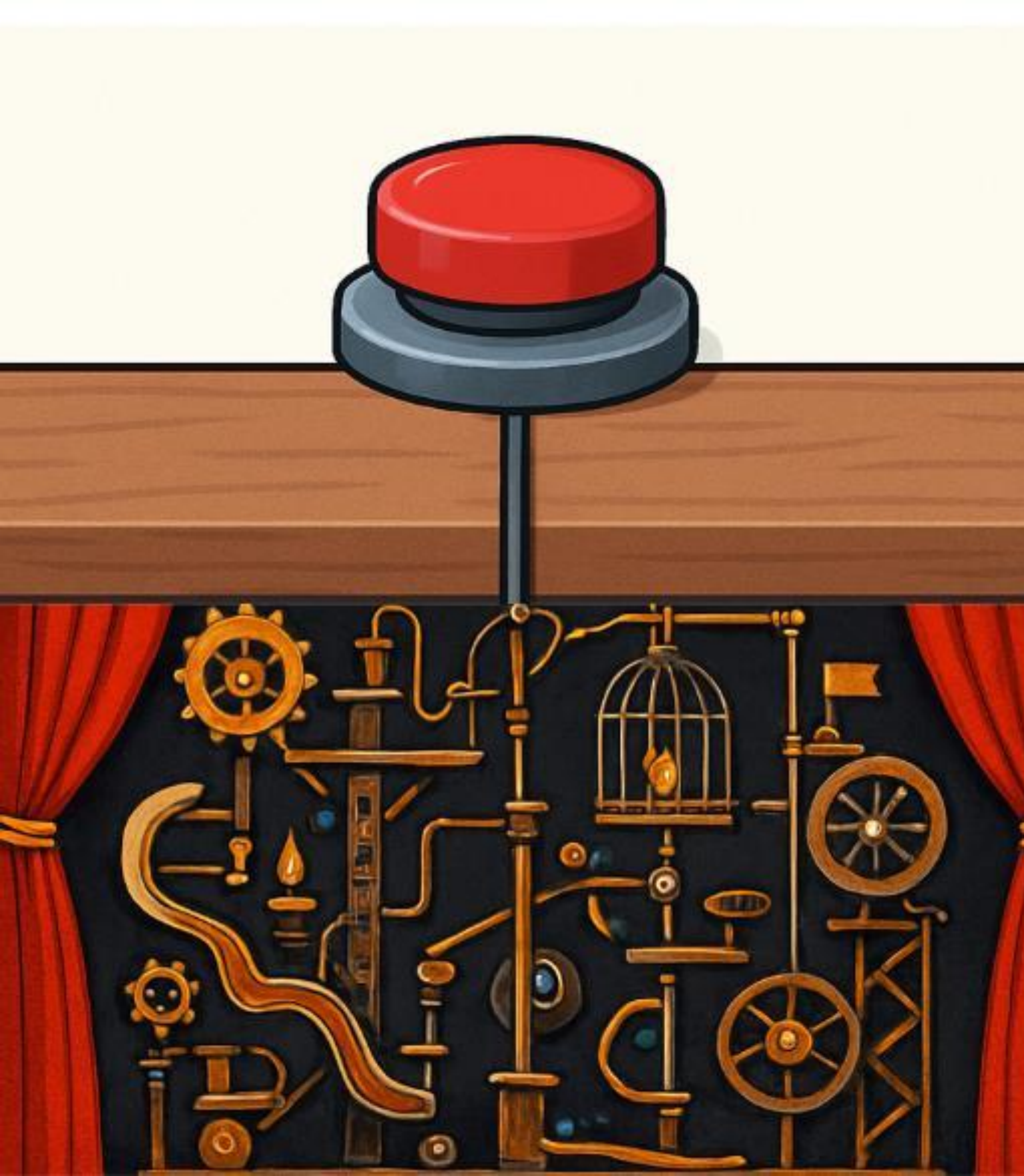
Progress Notes

| Added On         | Note                   | Event Code                 |
|------------------|------------------------|----------------------------|
| 25/06/2025 14:38 | Still a little flooded | RDSTAT - Closed to Heavies |
| 19/06/2025 09:09 | Its pretty flooded     | RDSTAT - Road Closed       |

# DARyL: Scheduled Automation

- **The Trigger:** FME Flow Schedule set to run every 30 minutes
- **The Core Action:** Main workspace executes API calls to pull AWM data into Esri SDE
- **Success Branch:** Generates consolidated email notifications for new or updated events
- **Failure Branch:** Triggers automated clean-up workspace to purge partial data and protect SDE integrity

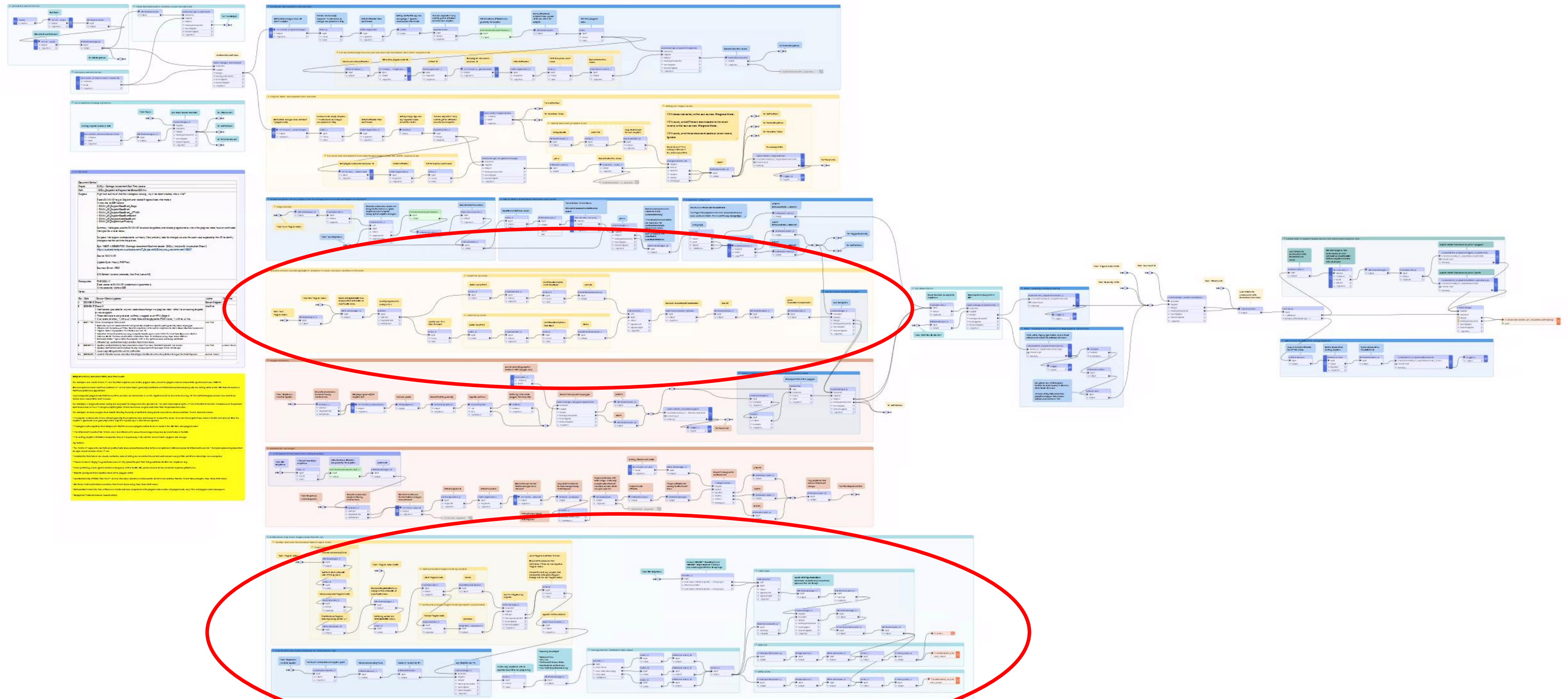




# DARyL: Main Workspace



# DARyL: Main Workspace

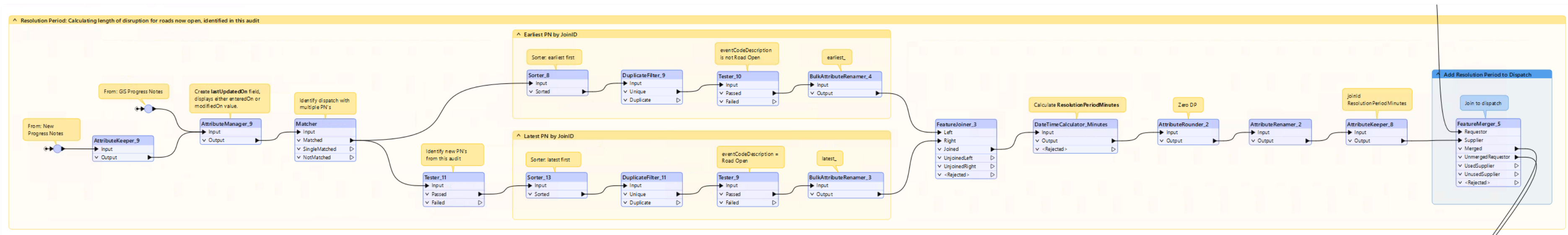


# DARyL: Resolution Period

- Compile all Progress Notes for a single Dispatch
- For each Dispatch:
  - Identify earliest Progress Note (not 'Road Open')
  - Identify latest Progress Note ('Road Open')
  - Calculate difference (in minutes)
- Note: If road is not open, no resolution period will be calculated

Average time taken to reopen a road

**1 Days**  
and 2.4 Hours



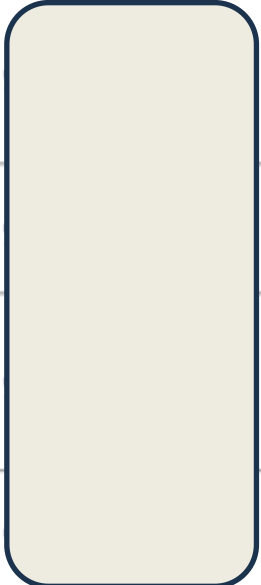
# DARyL: Notifications

## New Road Status Events

Script Run Date: 09/04/2026  
Script Run Time: 15:32:21

|       | Closed | Restrictions Apply | Open (within last 30 days) | Total |
|-------|--------|--------------------|----------------------------|-------|
| New   | 0      | 1                  | 3                          | 4     |
| Total | 2      | 16                 | 16                         | 34    |

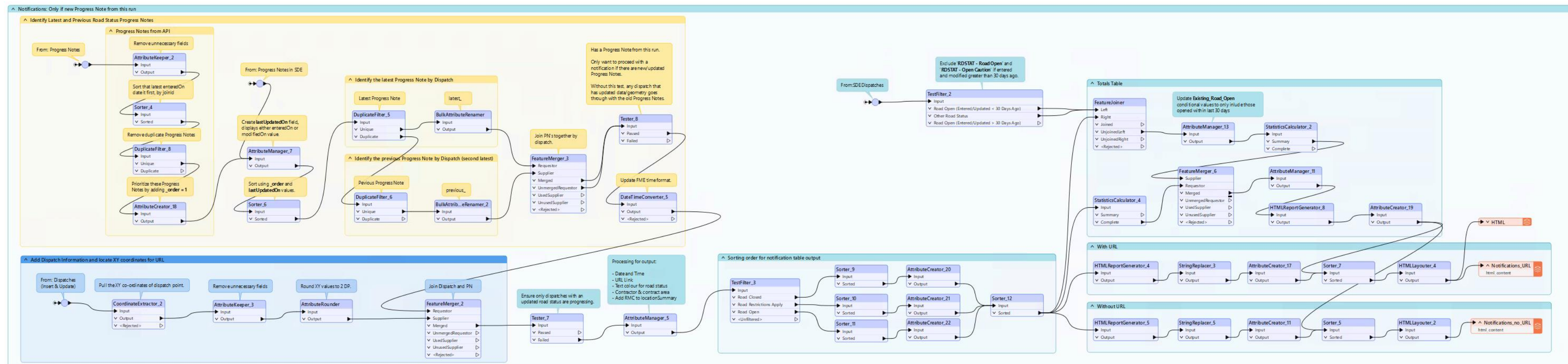
- High-level information
- Link to ATOC Viewer
- One email per run with compiled data

| Status                                    | Location & Road Type                                                                 | Entered             | Previous Status                                                 | Contractor                 | Contractor Area | Contract & Dispatch ID                                                                | Asset           | Fault     | ATOC Link            |
|-------------------------------------------|--------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------|----------------------------|-----------------|---------------------------------------------------------------------------------------|-----------------|-----------|----------------------|
| RDSTAT - Lane Closure - one way flow only |  | 09/04/2026 15:12:58 | New                                                             | Downer New Zealand Limited | North Rural     |  | Emergency Works | Landslip  | <a href="#">Link</a> |
| RDSTAT - Road Open                        |                                                                                      | 09/04/2026 15:19:45 | RDSTAT - Road Closed (21/01/2026 21:40:53)                      | Downer New Zealand Limited | Waiheke Island  |                                                                                       | Emergency Works | Landslip  | <a href="#">Link</a> |
| RDSTAT - Road Open                        |                                                                                      | 09/04/2026 15:21:18 | RDSTAT - Lane Closure - one way flow only (22/01/2026 18:43:51) | Downer New Zealand Limited | North Rural     |                                                                                       | Emergency Works | Landslip  | <a href="#">Link</a> |
| RDSTAT - Road Open                        |                                                                                      | 09/04/2026 15:14:50 | RDSTAT - Open Caution (09/07/2025 10:44:03)                     | Downer New Zealand Limited | Waiheke Island  |                                                                                       | Slips (RDC)     | Over Slip | <a href="#">Link</a> |



# DARyL: Notifications

- Filter Progress Notes: Isolate two most recent (flag 'New').
- Build Dynamic URLs: Embed XY coordinates for instant map panning.
- Format Attributes: Standardize timestamps, colors, and contractor areas.
- Generate HTML Tables: Output high-level totals and detailed dispatch lists.



# DARyL: The Integrated FME Solution

Alex Prior | Locus Global



# **DARyL In Action**

## **2026 Storms**





# Cyclone Vaianu Response

## Real-Time Alerts

DARyL pushed road closure notifications to stakeholders every 30 minutes

## Live Road Status

Frequently updated data showed every road closure across the network

## GIS Support

GIS staff embedded into the IMT Intelligence team at ATOC



## Rapid Coordination

Solutions delivered quickly as APIs with live data shared with AEM

## Community Safety

Residents received timely updates through our website and social media, which helped them steer clear of impassable roads.

# Tamaki Drive rock fall road closure on 26th March 2026

Planned 10:54 am

## Tāmaki Drive closed following landslide

Fire and Emergency New Zealand confirmed Tāmaki Drive is closed between Mission Bay and the yacht club in Ōrākei.

Fire crews are in attendance "in a safety capacity" while roading crews attend to the site. They understand there are no injuries currently reported, but there are rocks and debris on the road.

### Slip on Auckland's Tāmaki Drive

The map shows the coastline of Auckland, New Zealand. A red star marks the location of the landslide on Tāmaki Drive, between Mission Bay and the Tāmaki Yacht Club. A red line indicates the road closed between Mission Bay and the Tāmaki Yacht Club. The map also shows the city of Auckland, the Hauraki Gulf, and the surrounding islands.

**TAMAKI DR - Closed**

On Off Zoom to

|                          |                            |
|--------------------------|----------------------------|
| RMC                      | High Volume and Regional   |
| Road Name                | TAMAKI DR                  |
| Assigned To Organisation | Downer New Zealand Limited |

20260326\_104129.jpg

20260326\_104138.jpg

< >

1 of 2

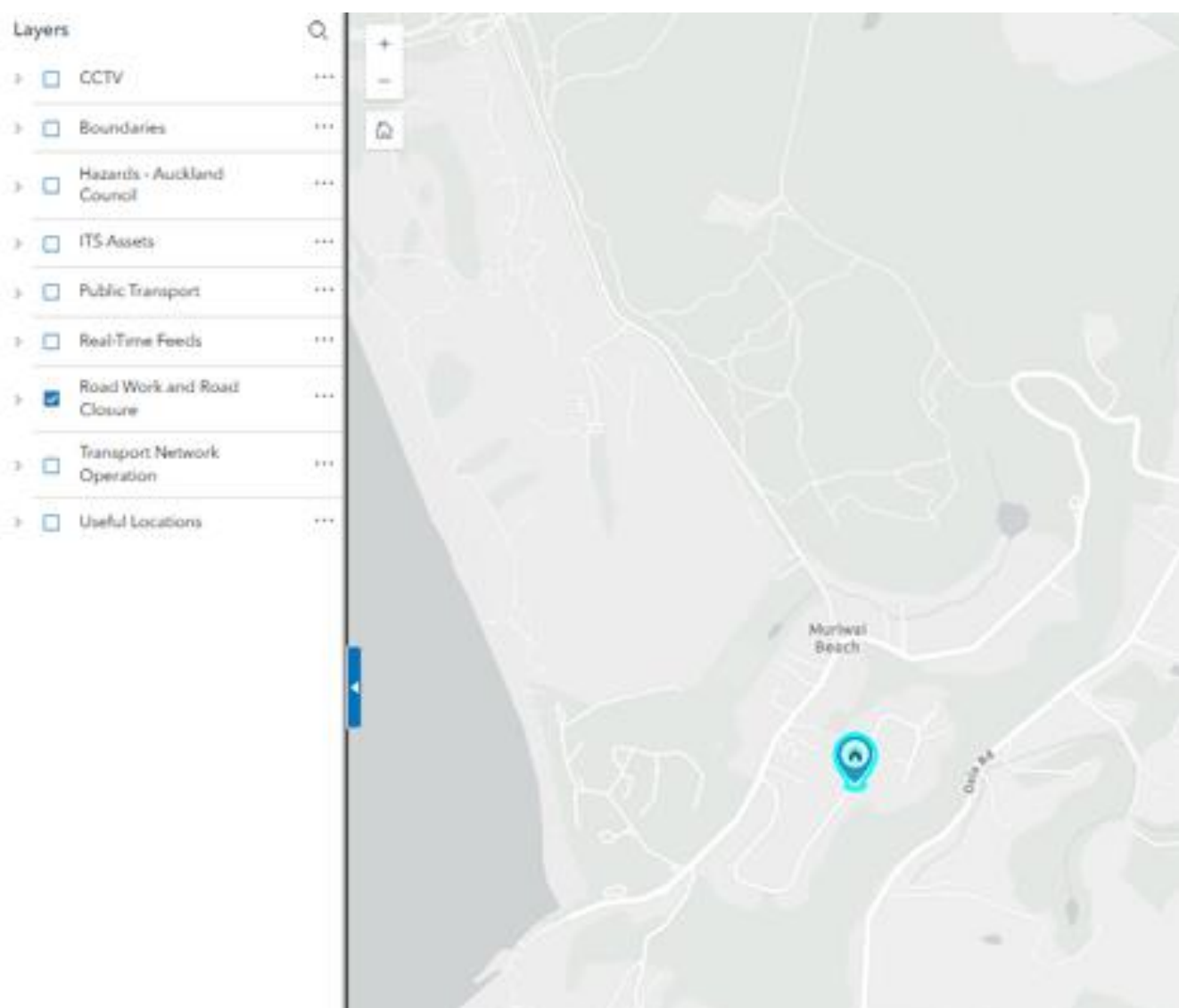


The screenshot displays the RAMM Road Closure application interface. On the left, there are two legend sections: 'RAMM Road Closure [Confidential]' and 'RAMM Road Event Extent [Confidential]'. The main map area shows a street map of Auckland, with a red box highlighting a road closure on Tamaki Dr. A red arrow points from the 'Zoom to' button in the details panel to the highlighted location on the map. The details panel on the right, titled 'TAMAKI DR - Closed', contains a table with the following information:

| TAMAKI DR - Closed   |                                     |
|----------------------|-------------------------------------|
| Dispatch ID          | 91372                               |
| Contract             | RCD-RM-CT-DW-2022-Central-933/91372 |
| Road ID              | 31309                               |
| Location Summary     | Tamaki Dr, Orakei                   |
| Call Status          | Started Work                        |
| Road Status          | Closed                              |
| Road Status Entered  | 26/03/2026, 11:10:50 am             |
| Road Status Modified |                                     |
| Asset Type           | Emergency Works                     |
| Call Type            | Call Centre                         |
| Call Entered         | 26/03/2026, 10:37:00 am             |
| Call Complete        |                                     |
| Call Dispatched      | 26/03/2026, 11:04:00 am             |
| Fault                | Landslip                            |
| Priority             | Emergency                           |
| Activity             | Emergency work                      |



# Muriwai Beach Domain Cres Closure, attended by Downer on 15th April 2026

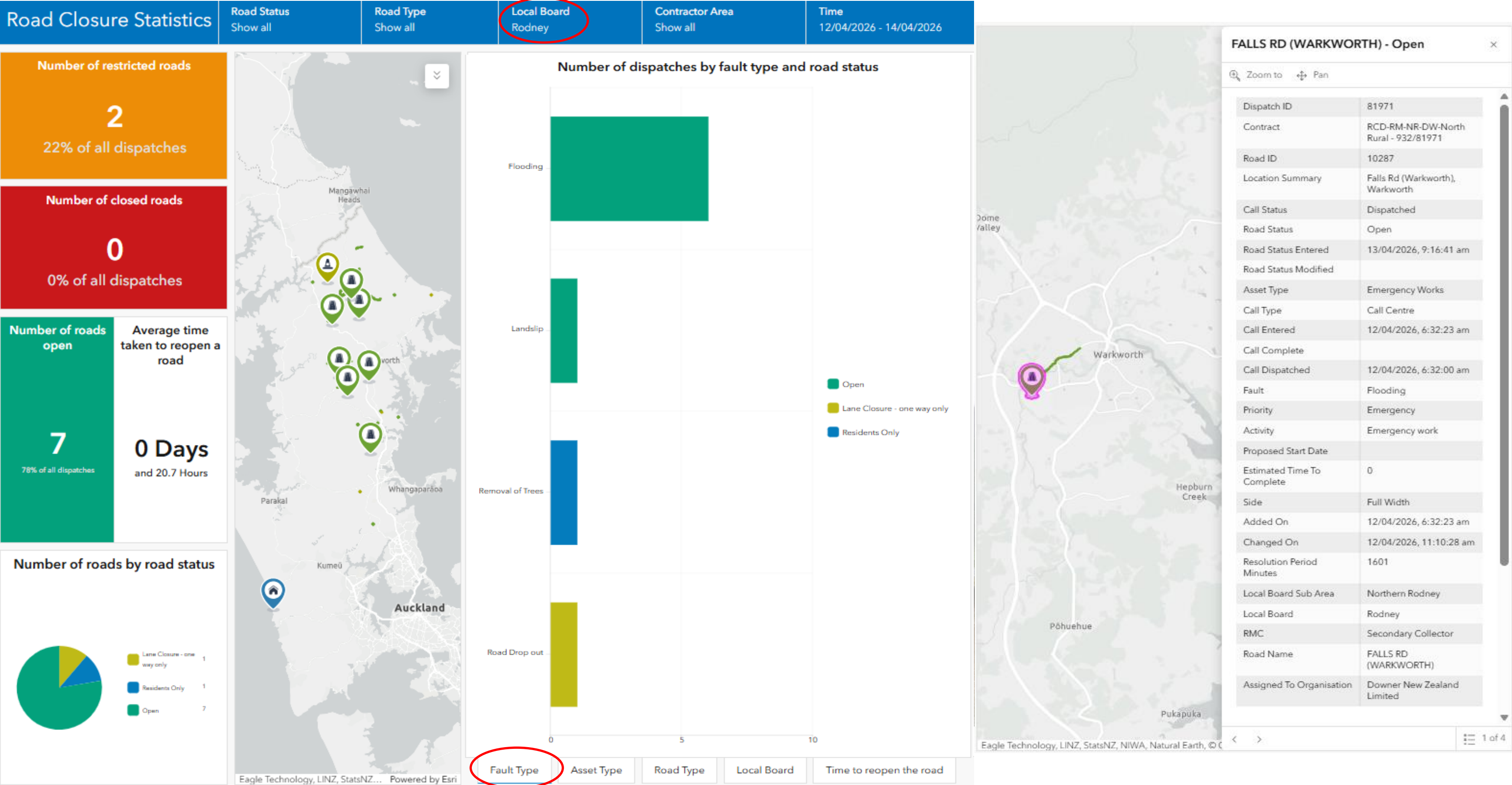


|                                              |                                      |
|----------------------------------------------|--------------------------------------|
| DOMAIN CRES LLA (#66 - #90) - Residents Only |                                      |
| Zoom to                                      |                                      |
| Dispatch ID                                  | 82457                                |
| Contract                                     | RCD RM NR DW North Rural - 932/82457 |
| Road ID                                      | 11415                                |
| Location Summary                             | Domain Cres Lla (#66 - #90), Muriwai |
| Call Status                                  | On Hold                              |
| Road Status                                  | Residents Only                       |
| Road Status Entered                          | 15/04/2026, 9:34:45 am               |
| Road Status Modified                         |                                      |
| Asset Type                                   | Detritus Clearing                    |
| Call Type                                    | Call Centre                          |
| Call Entered                                 | 14/04/2026, 1:29:00 pm               |
| Call Complete                                |                                      |
| Call Dispatched                              | 14/04/2026, 1:36:00 pm               |
| Fault                                        | Removal of Trees                     |
| Priority                                     | Emergency                            |
| Activity                                     | Vegetation control and maint.        |
| Proposed Start Date                          |                                      |
| Estimated Time To Complete                   | 0                                    |
| Side                                         |                                      |
| Added On                                     | 14/04/2026, 1:30:00 pm               |
| Changed On                                   | 16/04/2026, 11:21:11 am              |
| Resolution Period Minutes                    |                                      |
| Local Board Sub Area                         | Southern Kaipara                     |
| Local Board                                  | Rodney                               |
| RMC                                          | Access                               |
| Road Name                                    | DOMAIN CRES LLA (#66 - #90)          |
| Assigned To Organisation                     | Downer New Zealand Limited           |





# Cyclone Vaianu Response- Road Closure in Rodney on 12 and 13th April 2026





# Impacts & Lessons Learned

- Faster, better-informed response decisions
- Simple solutions can be highly effective
- API solution
- Value of in person communication
- Automate wherever possible
- Important to build strong collaboration across agencies
- For the community:
  - Safer journeys
  - Improved trust
  - Better information on disruptions
  - Faster recovery as roads reopen sooner
- Roading contractors also love it





“This initiative lays important groundwork for ATOC’s future state. Consistent data, automated pipelines, and shared operational views are essential building blocks as we continue to modernise how the network is monitored and managed.”

Jordan Smiley, Technology Specialist, ATOC

“Our requirements were extremely demanding and the pace was relentless, yet what you delivered not only met those demands but genuinely exceeded expectations... you enabled a true multi-use, single source of truth for operations, which directly supported our communications and, critically, provided the situational awareness we relied on for our lifelines function into AEM. The fact that this capability was stood up so quickly, made intuitive and approachable for users, and then consistently supported throughout the operation made a real difference on the ground.”

Claire Howard, ATOC Manager



“DARyL was born from a fear of the next storm. Not the wind and the rain – but the spreadsheets.”

Jovanna Leonardo



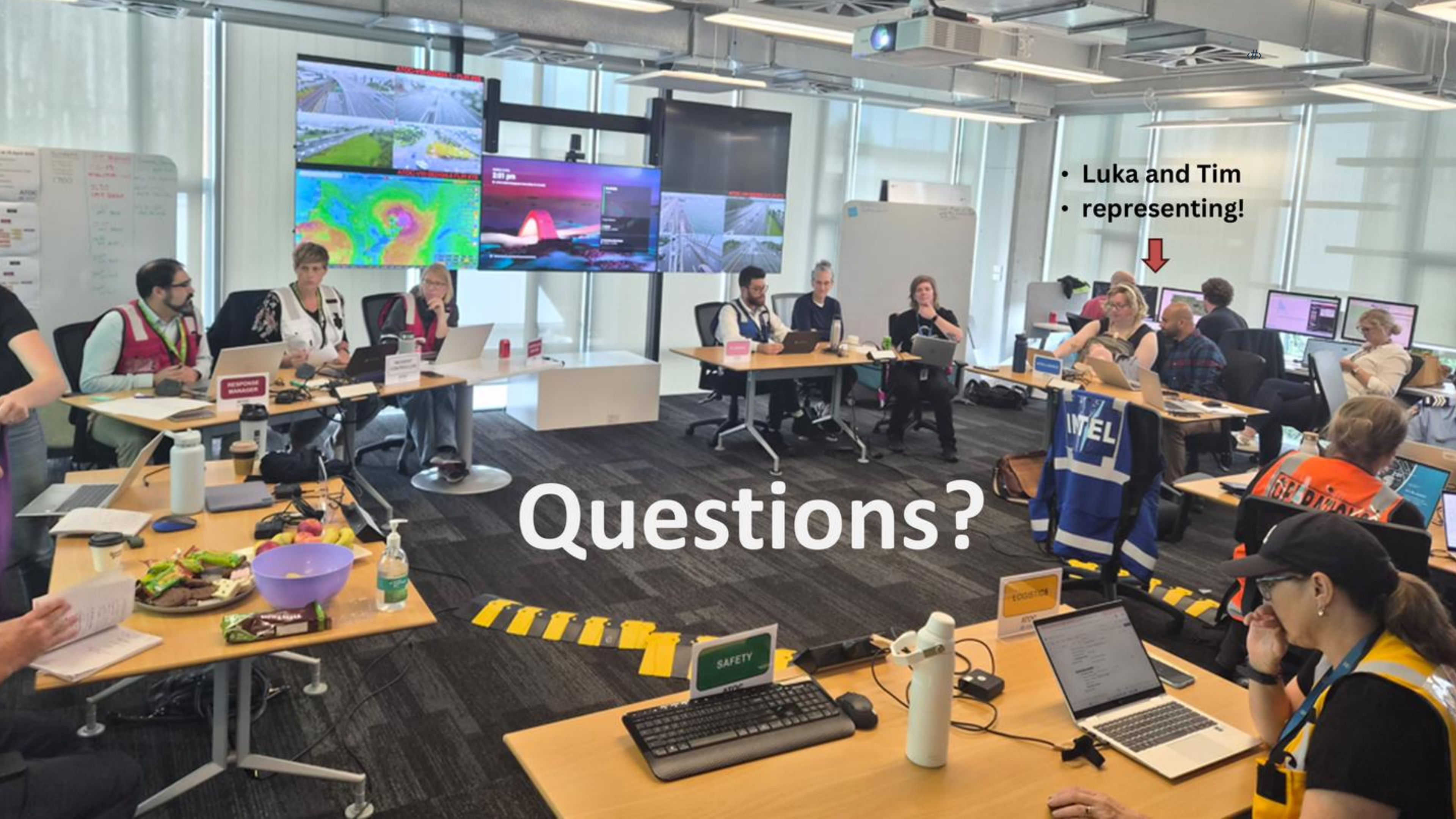
The next storm is around the corner

# Stay Safe, Stay Informed!

DARyL & ATOC Viewer







- Luka and Tim
- representing!



# Questions?