



A Tale of Two Field Mobility Solutions

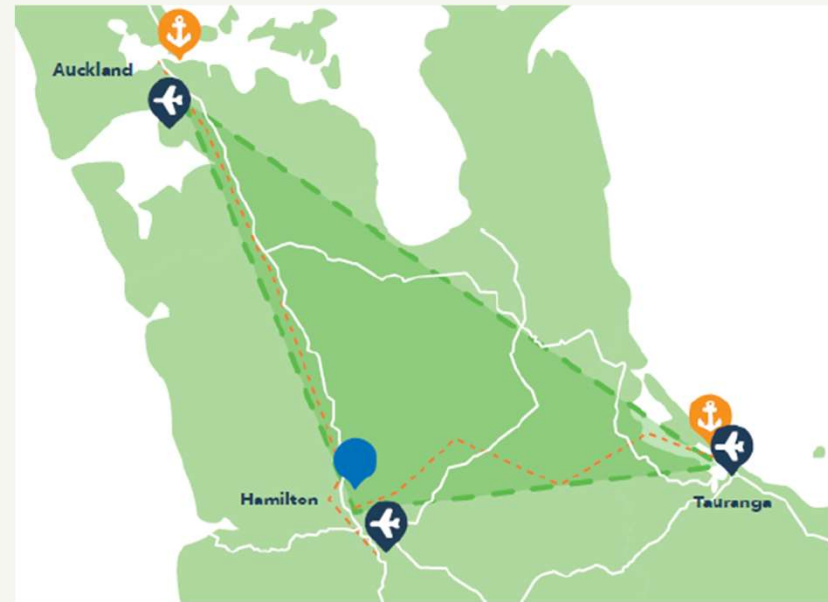
Why Are We Here?

Or what can you expect to hear about in this session

- Hamilton City Council's (HCC's) Community and Facilities Asset Management Improvements Programme overview
- The differing needs of our varied business units
- Hamilton Zoo and the Survey123 app (powered by ESRI)
- IPS Field Inspector for our Parks and Natural Areas teams
- Where we are going from here as an organisation with field mobility

Hamilton Explained

- We are the 4th most populous city in the country - and the fastest growing one. We've had 76% growth over 30 years!
- We're diverse with 160+ ethnic groups over our population of ~175,000 people calling this city home
- Situated 1.5 hours south of Auckland and 1.5 hours west of Tauranga; we form part of the economic "Golden Triangle" powerhouse



The CAFAMI Programme

Our Ambitious Bundle of Projects

- The CAFAMI programme was born from a need to improve our asset management maturity across many aspects of our business
- We knew that amongst our award winning gardens, an amazing Zoo, ~130 parks, and so on that we had:
 - Incomplete and/or erroneous asset registers
 - Non-standardised methods of updating and recording works on assets
 - Little to no spatial data
 - No consistent approach to data collection, IPS usage, or use of mobile devices with Field Inspector
 - Frustrated staff who weren't enabled to do their jobs well

We needed to make some changes



The Programme Was Born

Or 10 Projects in a Trench Coat

1. Standard Reporting: the ability to quickly and easily analyse asset data for managers at a glance in PowerBI
2. GIS Implementation: to give spatial data of all open space assets and buildings
3. Review and Expand Trees: how is the street tree programme going, and can we use LiDAR to include our parks trees into the same processes
4. Condition Inspections: create a condition framework for assets, and a works management solution to have these carried out internally and externally as needed

The Programme Was Born

Or 10 Projects in a Trench Coat

5. Aquatics Maturity: to complete the asset register, utilise works management and provide a PID to assist with both
6. Zoo Maturity: to provide a complete open space asset register, complete with GIS mapping, and deliver IPS works management to the team
7. Building Floor Plans: to have these created and existing in GIS for easy updating as buildings change over time
8. & 9. Facilities Works Management Review and Condition Inspections: to review the processes here and identify areas of improvement and alignment

The Programme Was Born

Or 10 Projects in a Trench Coat

10. Field Inspector: rolling out of field inspector to all our field teams to enable mobile work management



One Approach To Rule Them All?

- Hamilton boasts:
 - Award winning botanical gardens featuring large park like areas as well as enclosed themed gardens
 - A lively and beloved Zoo
 - Over 130 parks
 - 90 playgrounds
 - ~414 rubbish bins in parks
 - 175 natural area zones at various levels of restoration
 - ...and so much more
- Each of these has differing needs, data coverage, compliance requirements, and ways of working that need to be met



The Zoo



The Zoo - Requirements

- One of the first teams we worked with were at the zoo, targeting their incomplete asset register and work management that was outside of the corporate systems (or even technology).
- With 25 hectares of land holding 400+ animals across 93+ species, staff areas, and visitor spaces we know that there are a lot of open space assets here; and a lot of places where things can break and need maintenance
- The team is made of asset managers, zoo keepers, and maintenance staff – all of whom needed to be enabled with the ability to report faults

The Zoo - Requirements

- Not only did this team need to communicate that something needed attention while out and about over those 25 hectares, but they needed to also bring it all into IPS – our corporate asset information and works management software
- It would then mean that they could report on it, and make data led decisions about their assets, as well as properly tell their story to decision makers
- Talking to the business, and walking in their shoes with them, we discovered that they needed some specific requirements for a solution

The Zoo - Requirements

- The team needed a solution that:
 - They could carry with them
 - Didn't hinder the keepers while doing their job
 - Was fast - capturing high level information in 5mins or less
- Our first idea was INFOR's field inspector - but this didn't meet the brief due to requiring the keepers to have an iPad with them at all times, and it was too slow and fiddly to slot into their routines
- So we leveraged the relationships we had built with DS through this project to explore other possibilities

The Zoo - Solution

- Our solution came in the form of an app developed by ESRI – the vendor for our GIS software
- ArcGIS Survey123 is an app that uses digital forms to capture data quickly against a coordinate, and can be completely designed and maintained in house by our amazing geo spatial team
- This form allows for the capture of works in the field in 5 easy steps, and integrates directly into our IPS system to create a work order (to be triaged and allocated out to staff from a management role)
- Most importantly it is able to be downloaded and run on the team's existing phones



5 Steps to Work Order Creation

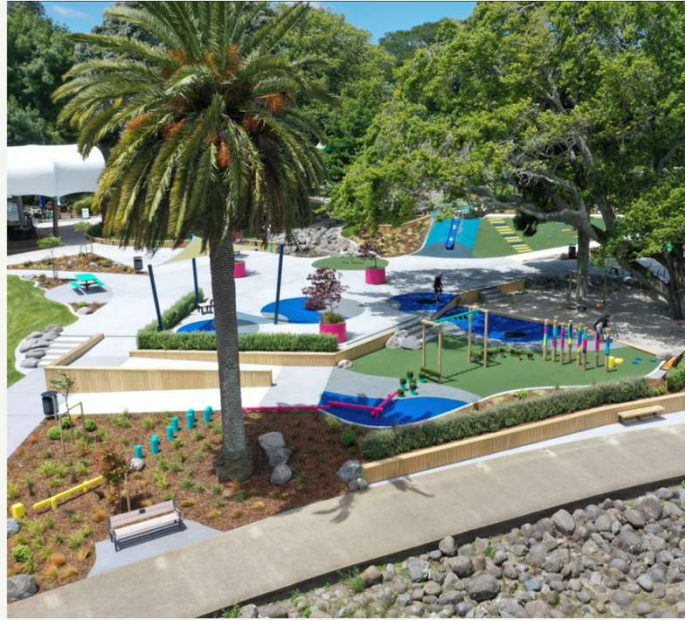
1. Problem - based on a relevant selection of existing problem codes in IPS presented as a drop down
2. Fault Description - 1000x character free test field to describe the issue
3. Add A Photo - either from file storage or take a photo right there and then
4. Location - Enable this and it will automatically snap to the users location, or can be easily moved to an appropriate location for the asset
5. Tick - to complete the form and send it to IPS to create the Work Order

A screenshot of a mobile application interface for creating a work order. The interface is white with a dark green header bar at the top. The header bar contains a close button (X), a signal strength indicator, and a battery level indicator (79%). The main content area is divided into five sections, each with a numbered circle (1-5) indicating a step in the process. Step 1: 'Problem *' section with a dropdown menu and a hint 'Based on IPS problem codes. Pick the most relevant.' Step 2: 'Fault Description' section with a text input field and a hint 'Describe the fault.' The input field has a character count '1000' at the bottom right. Step 3: 'Add A Photo' section with a hint 'Upload photo' and two buttons: a camera icon and a folder icon. Step 4: 'Assign Job To' section with a dropdown menu showing 'ZooAdmin'. Step 5: 'Location' section with a hint 'Select the location of the issue.' and two buttons: a location pin icon and a map icon. At the bottom of the screen, there is a dark green bar with three icons: a hamburger menu, a circle, and a back arrow. A checkmark icon is visible at the bottom right of the screen, indicating the completion of the process.

Easy as...



Parks and Open Spaces



Parks and Open Spaces - Requirements

- The other business we have worked closely with is the Parks and Open Spaces teams who look after all of our natural areas in the city, as well as collecting the rubbish from the park bins, check and inspect our playgrounds, and clean our changing rooms... plus all the other parks related maintenance that happens that you just can't plan for
- These teams have already dabbled in IPS and works management, but never in a way that allows for the people at the coal face to log their work into the system

Parks and Open Spaces - Requirements

- These teams work across the city, and their time is already to the wire as it is
- They wanted to be able to tell their story through evidence based reporting about all the awesome work they already do - and what they simply just can't
- We also wanted to help them transform from having information everywhere - note books, trucks, other apps - and consolidate it all into IPS to give them a one source of truth for their assets and the work they do on them

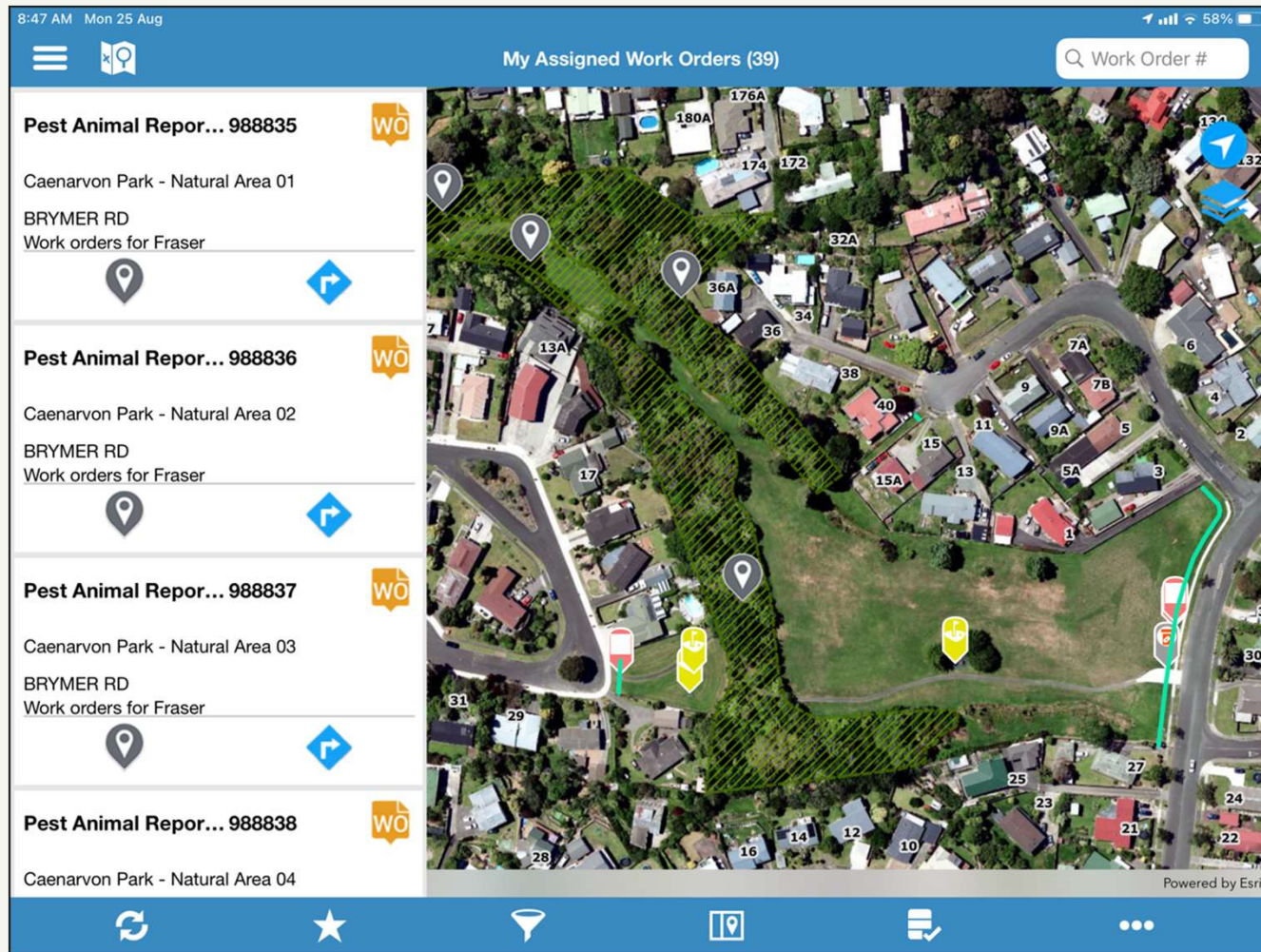
Parks and Open Spaces - Solution

- Field Inspector was the choice here. Other areas of the POS business have already been using Field Inspector with success and we wanted to roll out a solution consistently across this business
- The data they wanted to capture was to a level of detail that was appropriate for field inspector, and unlike the zoo we were providing a solution for completing works *as well as* capturing new works

Parks and Open Spaces - Solution

- The biggest win we have had for these teams was being able to link in with GIS and have the map available that was built in a different part of CAFAMI available to them within the application
- This means that they can see exactly where they are, where their work orders are, and the assets that they are standing next to
- It also means they can stand next to the asset that requires maintenance and select the point, going to the create a work order screen for the exact asset they need – no guess work required!

Parks and Open Spaces - Solution



Parks and Open Spaces - Solution

[Cancel](#) **OSA Points - Sport Play Equipment (QA)**

Feature Information

[Create Asset Inspection](#)

[Create Asset Work Order](#)

AssetDescription: Caernarvon Park-Playground 2-Modular Unit

AssetSubType: PEMU-TMBSM

AssetSubTypeDesc: PlayEquip-Modular-TimberSM

COMPKEY: 371623

COMPTYPE: 14

DATE_UPDATED_SDE

GlobalID: 5cd04c65-697d-4ab1-ba8e-e54d0f6c3f4d

Location: Caernarvon St

MaintainedBy: CITYPARKS

OBJECTID: 74

OpenSpaceID: CAER-PLAY01-MODUN002

Ownership: POS

8:48 AM Mon 25 Aug [New Work Order](#)

Work Order

Activity Code: Required

Asset: Landscape
Open Space Asset - CAER-PLAY02-MODUN001

Address:

Parcel:

Location:

Business Unit: Required

Assigned To: Hannah Hilton

Responsible Officer: Required

Problem:

Comments:

Parks and Open Spaces - Solution

- The different teams had differing needs and regulations to work to; which we were able to accommodate with the configuration of new detail pages
- We also needed to make sure that our processes were simple – the average age of one team was 70!
- Routine work was set up into schedules so there will be no disruptions to the process – even if their manager is away
- And lastly the process had to be quick so as not to impact their already tight schedules. We took advantage of processes like bulk uploading for jobs that are all more or less the same.

Parks and Open Spaces - Solution

8:56 AM Wed 16 Jul 4G Not Charging

< ⓘ

Details

SUMMARY

Playground Visual Check

General Observations

Items Repaired

Create Work Order for any fault that needs others to action



10:36 AM Wed 16 Jul 4G Not Charging

< ⓘ

Details

SUMMARY

Playground Inspection

General Site Layout

Seating, rubbish bins and other assets in good condition?

Do gates swing freely and safely?

Are the paths around the playground free of hazards?

Trees around the playground free of harm causing damage?

Free of injury causing rubbish, fouling and foreign objects?

Are assets free of any obvious physical damage or vandalism?

General Site Action Needed (any text will create WO)

Fencing and Gates - (Only for playgrounds with child proof safety...

Do gates swing freely and safely?

Are fences in good condition?

Fences under 1.2m, no Footholds for children to climb over?

Fencing and Gates Action Needed (any text will create WO)



Parks and Open Spaces - Solution

10:04 AM Thu 19 Jun 4G 100%

< ⓘ

Details

SUMMARY

Natural Areas

Time Allocation

Enter total time for all staff

Hours for Project Watershed

Hours for Non-Core

Hours for Site Maintenance

Activities Completed

☐ Spraying

☐ Compliance Weed Control

☐ Transformational Weed Control

☐ Other Weeds

☐ Releasing

☐ Planting Preparation

☐ Primary Planting

Number Primary Plants

☐ Enrichment Planting

Number Secondary Plants

☐ Mulching

☐ Pest Control

📄

12:07 PM Mon 23 Jun 4G 73% +

< ⓘ

Details

SPRAYLOG

Date	Applied By	Chemical	Chemical Qty	Chemical UOM	Water Quantity	Spray Location	Weather	Wind	Comments
23/06/2025 12:06 pm	HiltonH	AMITROLE	2	g	2	Left hand side of path	FINE	LIGHT	Was large patch of bamboo

What's Next?

- Remember our friends at the zoo? Their maintenance team will be getting Field Inspector to log their work
- The condition inspection programme will be finalised and rolled out - also using field inspector
- Look to roll out further to more business units and teams with maintenance staff
- We look forward, to another LTP cycle with improved data and decisions... and improvements to be made



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