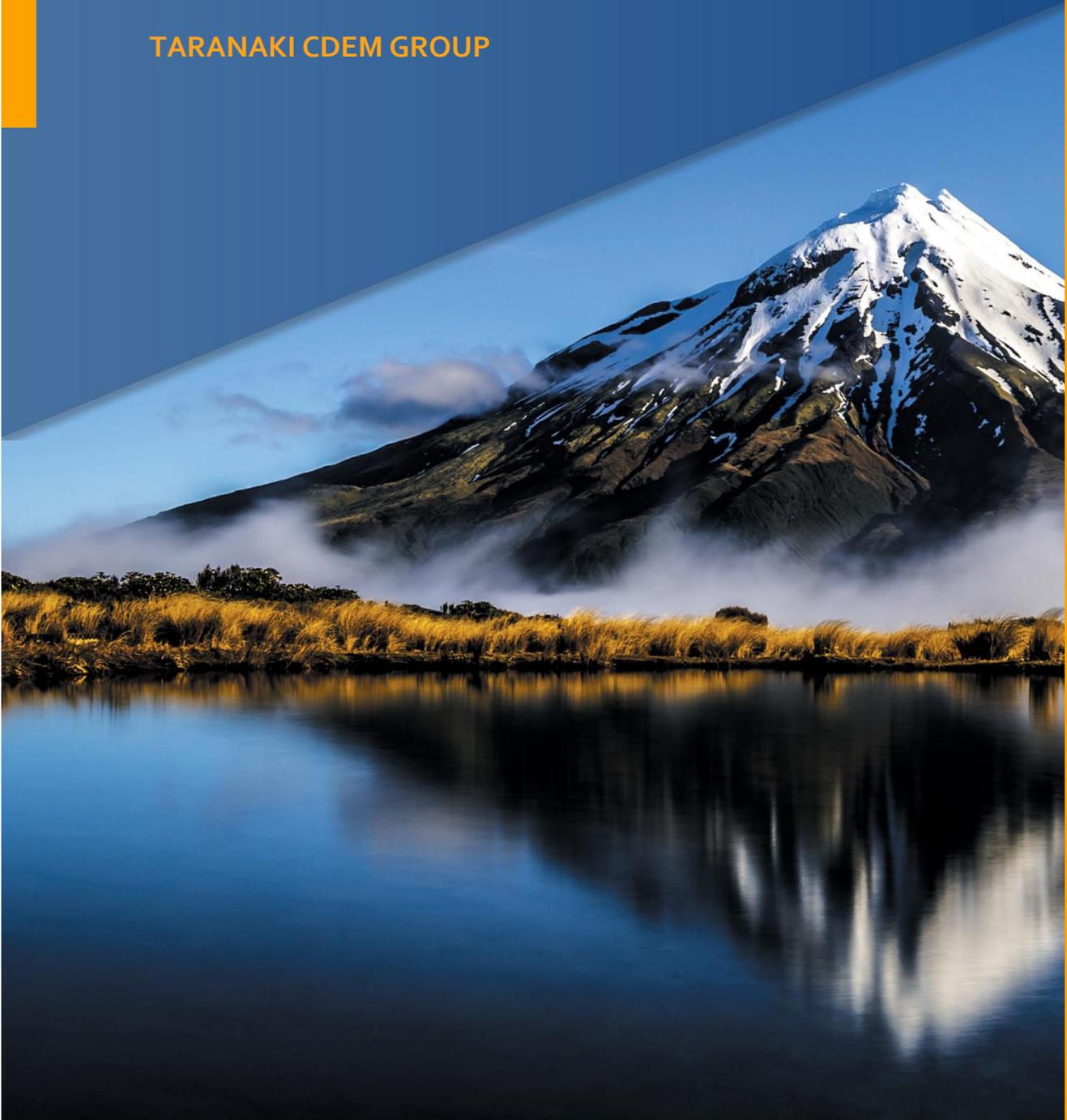




Resilience Fund Final Report Welfare Registration & Needs Assessment

Dec/2021

TARANAKI CDEM GROUP



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Executive summary

Registration & Needs Assessment provides fundamental information and understanding about individuals, whanau and communities affected by an emergency and their associated needs.

In March 2021, Taranaki CDEM group applied to the Resilience fund to establish an interim registration & needs assessment software application that met the mandatory minimum needs as set by the National Emergency Management Agency (NEMA) as well as the extra needs identified by Taranaki CDEM. This application was successful and an amount of \$30,000.00 was allocated by the CDEM Resilience Fund to the project.

Note: Taranaki CDEM group supports the development and implementation of a national system in the future

Background

In past emergency events, a crude case management system using excel was implemented to deal with the needs of affected people. However, during the first COVID-19 activation in 2020, it became apparent that due to the overwhelming needs of people affected by the outbreak and lockdowns that occurred, a more sophisticated and manageable system was required to deal with the amount and complexity of the needs that arose.

In response, a custom end-to-end case management system named RANA was built during Covid to fill the gap. The programme, built on a Microsoft Access database platform, utilised data collected through the ArcGIS Survey 123 System to track, manage, and financially account for individuals and whanau needs in an easy, intuitive way.

The system was improved and developed throughout the response to also track finances and claims, manage the needs of local iwi and to capture statistics about the people who were being assisted. The system was a success and has changed the way welfare needs are dealt with in Taranaki.

However, due to a shortage of Microsoft Access database developers, the system was unable to be maintained going forward and so it was decided that another solution should be sought or that RANA be redeveloped on another system platform that is sustainable for development and support.

Purpose & Intended Outcomes

- A consistent approach across Taranaki
- An integrated information collection, analysis, and reporting system that places people at the centre of the emergency response
- Ability to analyse, prioritise, coordinate, and manage information to address the specific needs of individuals, whanau and communities.
- Meet the security and privacy requirements outlined by NZ Government
- Meet the reporting requirements required for re-imburement of claims
- Ensure the applications are flexible and agile enough to manage multiple responses/events
- Learnings and outcomes applicable to all other groups.

Key Outcomes and Deliverables

- Scope of project mapped
- Identification of system specifications/requirements for users via interview with BTG Project Lead
- Engagement with appropriate providers, these included Otago CDEM Group, Northland CDEM Group and New Plymouth District Council (NPDC) Business Technical Group (BTG) team
- Research and assess solutions – off the shelf and bespoke – 4 systems were investigated – D4H, Northland bespoke system, Awhina and RANA, Taranaki CDEM groups system developed during 2020 COVID-19 response
- Present results for decision to progress – at this point a business case was presented to the BTG team at NPDC for the redevelopment and enhancement of RANA.

- Develop and design – Lanne Torres (NPDC BTG analyst) assigned as technical lead, external contractor (Spark) engaged to undertake the work.
- Test
- Implement

Successes and Challenges

1.1 Successes

- Enhancement of a known system that performed well
- Agreement by NPDC to host, support and maintain going forward
- Original system designer oversaw the project technically which provided a successful interface with the external contractor, saving time and money
- Manual tasks and complexities have been removed from the system/process with automation of some tasks now established

1.2 Challenges

- Delays due to COVID-19 restrictions and workload stress within NPDC and the Group Welfare Coordinator.
- Uncertainty at the beginning of the project about commitment of support from the BTG team at NPDC which resulted in delays.
- Budget allocation prioritisation for system components to realise as much functionality as possible.
- A number of system enhancements that were identified during the process have not been realised as they fell outside of the original scope/budget.

Product Development

RANA Platform Replacement Project

Functionality and System Design

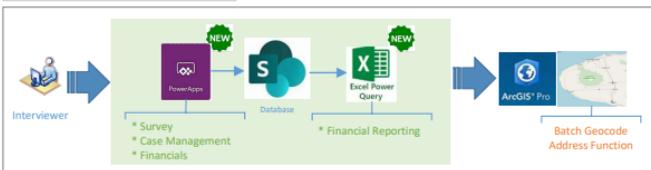
PROJECT OBJECTIVE

- * Better supported platform – from MS Access to Power Platform
- * Survey data saved real-time with no data transformation required
- * Automated process – removal of manual export/import tasks
- * Scalable to link with LINZ Address API integration
- * Usable for any Civil Defence incident (not just Covid)
- * Inclusion of Animal Welfare in the process
- * No limit in the number of people registered on the case
- * Future-proof: Questionnaire for Maori, Rural and SIQ

New RANA Functionality

- * **Survey** – ability to use the survey for multiple events and available on both mobile and desktop version
- * **Case management** – processing of the survey results, delivery of the needs with built-in case stats dashboard; high priority cases tagged; track accommodation resource requests
- * **Financials** – stores invoice/expense information against cases and all other expenses related to the response useful for any reimbursements; stores supplier information
- * **Reporting** – reports showing a summary of financials by expense type, list of ongoing deliveries ongoing deliveries, cases/individuals still in accommodation, case stats report for CDEM Taranaki's Iwi Liaison Officers to coordinate with the Iwi groups and for Intelligence and Response Managers shown by needs type, priority and ethnicity

Current System and Process Flow



Next Phase

- CDEM Taranaki to source additional funding for:**
1. Duplicate detection full functionality
 - this was placed on hold due to complexity and limited budget
 - interim solution available: sort, filter, high priority cases tagging
 2. LINZ Address API integration or Geospatial / Address locator
 3. Case mapping in ArcGIS Pro via Batch Geocode Address function
 4. Other enhancements requested outside of current scope
 - e.g. Maori, Rural and SIQ questionnaire

NEW PowerApps

- 1 – Built-in Survey
 - * Case Stats Report/Dashboard
 - * High priority cases tagged
 - * Case Sorting and Filtering
 - * Accommodation Approval tagging
- 2 – Case management
 - * PO and Invoice tracker
 - * Expense by Case tracker
 - * Reimbursements tracker
 - * Supplier information
- 3 – Financials
 - * PO and Invoice tracker
 - * Expense by Case tracker
 - * Reimbursements tracker
 - * Supplier information

NEW PowerQuery Excel

- 4 – Reporting
 - * Case Stats by Expense Type
 - * Financials Reporting
 - * Iwi Reporting

Access Version

- 1 – Case management
- 2 – Invoice tracking
- 3 – Ongoing needs tracking
- 4 – Financials reporting
- 5 – Iwi Reporting
- 6 – Stats Reporting
- 7 – Supplier information
- 8 – Approvals

Manual Tasks and Complexity removed

- * Welfare Team downloads data from Survey 123 and import to RANA every hour.
- * Complexity in the data transformation from Survey123 (e.g. list of people in the household) with a limit of 5 people at one time.
- * Survey123 requires a download if there are changes to the form and it was not easy change the schema during the event

Previous System Flow with the manual tasks and complexities



Project Team

Project Sponsor	Todd Velvin, Taranaki Group Manager
Project Lead	Kaz Lawson, Resilience & Group Welfare Manager
Project Manager	Lanne Torres, Analyst BTG NPDC
Other Project Members	TEMO staff, Welfare Coordination Group, Rural Coordination Group, BTG support staff
External Contractor	Spark

A number of modes of engagement were utilised throughout the project to connect with various stakeholders including surveys, agenda topics at meetings, presentations, feedback sessions, zoom meetings, email, demonstrations etc. The project team came together at various points throughout to discuss progress and demonstrate milestones for feedback. Project Manager, Lanne Torres was the liaison between TEMO and the external contractor, Spark.

Funding

Taranaki CDEM group was granted \$30,000.00 by the CDEM Resilience Fund to establish an interim Welfare Registration and Needs Assessment software application. A number of initial deliverables i.e., project scope, identifying system specifications and requirements for user, research, and assessment of solutions, have been underwritten by the Group and the NPDC BTG team with the bulk of funding allocated against Development/ Design and testing.

Development & Design phase of the project was divided into functional system components for ease of management and visibility of budget allocation which was charged at an hourly rate by the external provider.

Activity	Expenditure to Date	Budget to date	Full Year Budget	Budget Forecast	Variance
Survey Form	\$7500.00	\$7500.00	\$7500.00	\$7500.00	Nil
Case Management	\$7500.00	\$7500.00	\$7500.00	\$7500.00	Nil
Financial Tracking	\$7500.00	\$7500.00	\$7500.00	\$7500.00	Nil
Reporting	\$7500.00	\$7500.00	\$7500.00	\$7500.00	Nil

1.3 Internal Funding allocated

TEMO and NPDC BTG staff time not included in the above expenditure across the project is estimated to be \$20,000.00 and accounted for over 500 hours. This allocation does include staff time from Northland CDEM Group or Otago during the research and assessment phase.

1.4 Component Details

Case management with ongoing needs tracking (cases in accommodation and delivery of household goods and services)

Financials - Invoice tracking (useful for claims/reimbursements) and Financials reporting

Stats Reporting – e.g., open and completed case count, Iwi related cases

Supplier information - stores supplier information against raised Purchase Order for staff to easily contact suppliers and linkage to the Finances

Survey Form (previously ArcGIS Survey 123) - included in the new RANA for survey input to be made available real-time on the case management removing the manual upload process every hour

1.5

1.6 Exclusions/ongoing costs

The scope of the project did not include training of staff/volunteers across the region, this cost will be included in capability budget and is an ongoing cost.

Associated costs of presentation to NEMA/other groups.

There were several enhancements to the system identified across the project which fell outside of the original scope for which additional funding would be required.

- ❖ Duplicate detection full functionality – placed on hold due to complexity and budget. An interim solution has been put in place using filters and high priority case tagging.
- ❖ LINZ Address API integration or Geospatial/Address locator
- ❖ Case mapping in ArcGIS Pro via Batch Geocode Address function
- ❖ Iwi, Rural, needs assessment surveys add ons to master survey, and secure areas within the system.
- ❖ External integration.
- ❖ Hosting/maintenance of system outside of region

