



## CUSTOMER EXPERIENCE

OCTOBER 2014



## Trimble Solutions:

### » Geospatial data collection

Trimble® TerraFlex™ software

#### THE CHALLENGE

Ngā Whenua Rāhui collects biodiversity data from private land in New Zealand. On each project, teams collect different types of data.

#### SOLUTION

A new data collection app enables the biodiversity monitoring team to create data-collection forms for each project, modifying them whenever necessary.

#### RESULTS

Landowners receive results more quickly than before, so they can address ecosystem problems faster. Time and cost savings extend Ngā Whenua Rāhui's budget, sparing funds for more conservation. All our guys need to do is find cell phone coverage, for example, in a local town, and sync up."

# BIODIVERSITY MONITORING FOR CONSERVATION IN NEW ZEALAND

## Overview

A team within New Zealand's Department of Conservation, Ngā Whenua Rāhui, works with Maori landowners to formally protect their indigenous biodiversity. A new app for geospatial data collection has transformed the unit's conservation work.

An isolated island nation, New Zealand is home to a mosaic of unique natural ecosystems. Within the Department of Conservation (DOC) an important unit, Ngā Whenua Rāhui, works with Maori landowners to help them fund and manage the ecosystems on their land in balance with Maori cultural values.

Every five years Ngā Whenua Rāhui biodiversity team monitors changes in the ecosystem of each block of protected land (project). A team of up to nine field staff measures the presence or absence of animal species, plant life, pest damage, and more. The team can thus measure changes in the ecosystem and determine how healthy the project is overall. "The biodiversity monitoring team is the eyes and ears of Ngā Whenua Rāhui's effectiveness," said Roland Pomana, business analyst for the unit.

To collect biodiversity data, the teams visit remote and isolated parts of New Zealand. Most projects are forested, but others are coastal or wetlands, mountainous, or offshore.

Given the challenges and constraints of their work, the biodiversity monitoring team has welcomed Trimble TerraFlex mobile app for collecting data. The team uses it to create data collection forms, which can be modified on-the-fly as soon as a project reveals new data to measure. "Because each unique environment requires the measuring of different data," said Pomana, "the team can't rely on just one form to cover every project. Now any changes to a form can be updated in the office and field via the Cloud. All our guys need to do is find cell phone coverage, for example, in a local town, and sync up."

Even without cellphone coverage, teams can collect data offline. Frequently camped out in isolated forest for up to ten days, they can keep working then simply upload data to the Cloud for colleagues to access when next online.

When Ngā Whenua Rāhui adopted the TerraFlex data collection system, staff installed the app onto their smartphones and began working with it straight away. They began experiencing enormous time and cost savings immediately too—personnel no longer had to spend hours in the office manually entering data from paper into a spreadsheet, or transferring data from handheld device to computer. After just six months of use, Pomana estimates they have saved at least 20 person days. "That's just the tip of the iceberg," he said. "We haven't yet calculated how much we're going to save going forward."

Once a project's biodiversity monitoring survey is complete, the results are communicated to the land's owner. If the land's ecosystem is not healthy, the concerned parties work together to find a path forward. By delivering results quickly, Ngā Whenua Rāhui can promote action faster. And by reducing operating costs, Ngā Whenua Rāhui frees up more funds to help a greater number of landowners.

Ultimately, by improving its efficiency with tools such as TerraFlex, Ngā Whenua Rāhui is better able to support the preservation and management of New Zealand's natural heritage.

**"TerraFlex saves our team massive amounts of time and money, while its flexibility to adapt to our changing requirements enables us to be more open-minded about how we collect data."**

*Ngā Whenua Rāhui, New Zealand Department of Conservation*



Ngā Whenua Rāhui employee, Hori Katipa, using a smartphone with TerraFlex mobile app to collect data.



Field workers' smartphones running the TerraFlex mobile app.

**Learn more at:**

[trimbleinsphere.com/terraflex](http://trimbleinsphere.com/terraflex)

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