

CASE STUDY

Natural Resources

This customer story focuses on Desert Channels Queensland (DCQ), a community-based not-for-profit that provides funding to assist landowners across the Queensland section of the Lake Eyre Basin to undertake projects that improve water quality, restore ground cover and native vegetation, protect habitat, and rehabilitate erosion.

While they currently run six major partnership projects involving dozens of landowners, over the past 12 years they have run many hundreds of projects; all are planned and run based on surveys and data, and all require ongoing monitoring.

Problem

WHAT TYPE OF DATA IS DCQ COLLECTING?

Wherever they need to collect, collate and analyse data, DCQ uses Fulcrum. They have built Fulcrum apps to collect data for:

- ▶ The identification, condition, location and density of weeds
- ▶ The identification, condition, location and activity of feral animals
- ▶ Monitoring groundcover recovery, composition and biomass
- ▶ Auditing the use and maintenance of vehicles
- ▶ Auditing the type, rate, and conditions of chemical application
- ▶ Managing organisational assets
- ▶ Monitoring attendance and issues at meeting, field days and forums

Searching for a Solution

BEFORE FULCRUM

Managing projects over such a vast area used to require compromise: limited resources meant data collection and processing was time-consuming and only the bare minimum was done. Data collection and processing was time consuming: personnel had to be sent out on survey (or landholders would bring in maps, monitoring sheets or GPS points), maps had to be interpreted and digitised, data sheets entered and GPS data downloaded. This was all resource hungry—510,000 square kilometres, numerous projects, 15 staff = big challenges!



THE FULCRUM SOLUTION

DCQ recognised the crowdsourcing model as a means of collecting far greater data than funding would ever allow them to do themselves. If they could engage landowners, local authority staff and passionate travellers to install the app and collect data, the richness and value of their information would increase exponentially. While several potential platforms were evaluated, they settled on Fulcrum for the following reasons:

- ▶ Ease of use (critical because of unskilled users)
- ▶ Multiple operating systems (Android, iOS)
- ▶ Multiple platform (smartphone, tablet, PC)
- ▶ Hassle-free customisation
- ▶ Off-line capability (critical because of limited mobile coverage)
- ▶ Flexibility (can enter data through a web browser directly onto a map interface)
- ▶ Real time updating of database (with mobile or internet connection)
- ▶ Near zero time lag in decision making (especially critical in feral animal control)
- ▶ Reliability (works every time)
- ▶ Affordable

The key to encouraging landowner participation in Fulcrum data collection is being able to show them how easy it is to use. To communicate this clearly to the base of landowners and contributors, DCQ produced a helpful video showcasing the process.

How they use Fulcrum

Not only is DCQ now collecting a vastly greater amount of data, the data processing time is dramatically reduced due to the automated Fulcrum process from a simple web map to more complex visualizations. With shareable maps and versatile webhooks, information can easily be displayed for public consumption.

The ease of use of Fulcrum apps, coupled with DCQ's engagement of the community, has enabled the enlistment of a large number of enthusiastic and committed data collectors, which now delivers data with a greater geographic spread and density than was achievable pre-Fulcrum. In addition, skilled staff who used to be engaged in data processing, are now freed up to value-add to other aspects of the organisation's business.

The exciting efficiency of Fulcrum is exemplified in the following anecdote:

"I was about 100 kilometres from base, on the edge of mobile coverage, only two bars of signal," said Jade Fraser, DCQ's GIS manager, "when I got an email from a landholder asking if I could add fields to an app so she could capture information she felt was important to go with a record. I logged into Fulcrum through my iPad browser, made changes to the app in two minutes, sent her a reply to resync her Fulcrum and, within five minutes, everything was done and dusted. That is a measure of the true greatness of Fulcrum."

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