

# Big data helps graziers to manage rangeland areas



March 2017: The NRM Spatial Hub is a web-based tool that helps rangeland graziers decide how to optimise their grazing land management by bringing together map, satellite and grazer knowledge. It is a great example of how the regional NRM network works with partners to leverage funding and deliver results for land managers.

## Highlights

- Graziers who use the NRM Spatial Hub see potential for it to help raise their annual revenue by 35%.
- 700+ land managers use the award-winning Hub and users are increasing.
- Support and involvement from many NRM partners led to the Hub's success.

The NRM Spatial Hub brings together the world's latest mapping and imagery technology to provide a simple web-based tool to allow Australia's rangelands to be managed more profitably and sustainably.

The Hub combines the latest geospatial mapping technologies with time-series satellite remote sensing of ground cover and land owner knowledge, in a way that's never been available before.

For the first time, the sheep and beef industries will be able to combine their own data paddock data with government data in a consistent and interactive way.

The initiative demonstrates how world leading time-series remote sensing of ground cover through an online interface can optimise grazing pressure and land condition. This allows land managers to make more informed decisions.

## A multiplayer partnership

Support from the Australian Government National Landcare Programme enabled a collaboration of more than 20 organisations to develop the Hub. The major partners are CRC Spatial Information, Rangeland NRM Alliance and Meat and Livestock Australia.

There were many data owners, end users, scientists, pastoralists, 14 NRM regions, 5 government jurisdictions, universities and CRCs involved across 85% of Australia. The regional NRM groups allowed the tool to be tested quickly and efficiently across the country resulting in the Hub's rapid development and uptake. The Hub is now online and being used by more than 700 land managers.



*Grazier users of the NRM Spatial Hub say it can measurably improve their properties' productivity, profitability and sustainability.*

### Where it started

Stage one of the Hub commenced in April 2014 targeting 40 properties and raising the level of knowledge on a further 240. Rapid development of the Hub's infrastructure and the high level of interest led to training and property mapping being extended to more than 100 properties by late 2015 with more than 300 properties covering 50 million hectares using the system by March 2016.

The project had an end user focus with graziers providing feedback on the Hub's layout and functions. The results speak for themselves. It has brought spatial information into a format that ordinary people can understand and use. The Hub is in great demand from a wide range of land management agencies and services.

### Landholder survey

The post-project landholder survey showed:

- 90% found the Hub easy to use.
- 95% said the Hub has the potential to measurably improve the productivity, profitability and sustainability of their property.
- More than 50% felt the Hub would save them between 10 and 30 labour days a year.
- 75% said it would measurably increase safe carrying capacity through better pasture utilisation.
- 72% rated this type of technology as important to making their business viable and sustainable in the future.

The survey revealed that half of the respondents considered their properties to be around 50% developed. Using the Hub to guide future investment in

infrastructure development could conservatively increase annual revenue by more than 35% through improved pasture utilisation and increased stocking rates. This increase does not include the improvements in property value, risk management and labour savings that would also result.

### Commercial development

The Hub's success due to collaboration with end-users has resulted in an innovative, practical tool that is now being commercialised.

## Get on board!

Interested in getting involved or want to find out more? Then please contact us.

### Rangeland NRM Alliance

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