



Graziers improving the land and the Great Barrier Reef

New grazing management practices are improving the land at Glen Ruth Station – and preventing hundreds of tonnes of fine sediment from flowing to the Great Barrier Reef each year.

Grazier Curtis Archer wanted to reduce erosion and boost productivity on the family's 33,000ha cattle station in the Mt Garnet region. Through Terrain NRM's Upper Herbert Sediment Reduction Project, funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation under the Regional Water Quality Program, he began a new cattle and land management regime based on natural grazing practices.

CHANGES TO GRAZING MANAGEMENT PRACTICES

The Archers needed help to divide large paddocks so that movement and management of cattle would be easier. Their goal was to introduce a stock rotation system to better manage the creek flats, to spell paddocks and enable more pasture diversity while also reducing timber thickening and the growth of woody weeds like lantana.

Movement of cattle through smaller paddocks forces a more even grazing of pasture. And with smaller paddocks, areas can be more easily spelled to enable grasses to grow and to build fuel loads for hot season burns to better control woody thickening and weeds like lantana. A fire in a smaller area is also easier to manage.

Through the project, Curtis changed his grazing management practices on three areas of the



cattle station. The Archers have reduced their stocking rate by 50% on 2,400 hectares of land that was more susceptible to erosion and woody weeds, with management changes helping to increase ground cover and improve woody weed management.

Curtis transitioned from set stocking to a three-paddock rotational grazing system on 17,300 hectares. This involved splitting two large paddocks into four paddocks, erecting up to 13km of fencing and installing off-stream watering for stock (a solar pump system, header tank, water trough and 2km of water pipe). It also involved 6.8km of fencing by the Archers to better manage cattle on a large section of river frontage within this grazing area.

In the third area, Curtis will be fencing-off a large area of river frontage within an existing 11,400ha paddock. The 9km of fence line will force cattle off their preferred country, giving the river frontage time to recover, and it will also lead



to a more even graze of the large paddock. These changes were made with contributions from both Terrain NRM and the grazier.

EROSION REMEDIATION WORK

As well as recently removing well-trodden river flat country from the grazing cycle and fencing off a section of the Herbert River 10 years ago, the Archers have benefitted from engineered erosion control work through a previous Terrain NRM project, funded by the Australian Government's Reef Trust IV program. This work focused on areas of the station where roads were built in the 1960s for surveying a Herbert River Dam proposal. The aim was to control gully heads and redirect wet season water flow. This was achieved through a 100m bund wall, backfilling of road drains, construction of a basin and whoa boys (dirt mounds built across roads to direct storm water) and revegetation work using native grasses.

"When we first came here there was a significant lantana problem and, over the years, we've seen it get progressively worse, and also woody thickening. What we were doing wasn't working so we needed to instil some change, to manage our country differently."

– Grazier Curtis Archer

"With the new grazing system, the cattle are stimulating native grasses, keeping soil cover and allowing more water capture and that's a better outcome for the whole eco-system."

– Dick Richardson, Natures Equity





RESULTS

Every year, these grazing management practice changes are together preventing more than 950 tonnes – or 32 semi-trailer loads - of fine sediment from flowing into the Herbert River catchment and out to the Great Barrier Reef lagoon.

In terms of grazing results, the changes have improved the movement and control of cattle and led to a more even graze of paddocks. They've also allowed paddocks to be spelled, with plans for several years of spelling for some paddocks to improve grass loads.

“We’ve got three times the volume of grass. We’re seeing dominant species take hold and most of them are good native grasses. And we’ve seen significant change in the way animals graze. We typically see them working the land close to waters. Now we’re seeing them move out further and use the country that they didn’t use before. I think the benefits will increase over the years.”

– **Grazier Curtis Archer**

“Our aim is win-win projects that meet landholders’ management needs while also leading to practice change that reduces the fine sediment entering the river system and the Great Barrier Reef inner lagoon.”

– **Duncan Buckle, Terrain NRM**



“We’re always trying to improve our land and we’re more than happy when it also helps to protect the Reef.”

– **Grazier Curtis Archer**

ABOUT THE UPPER HERBERT SEDIMENT REDUCTION PROJECT

This is a three-and-a-half-year project delivered by Terrain NRM in partnership with landholders. It has collectively led to 56,000 hectares of grazing land management change as well as engineered solutions at two gullies and a streambank (a rock chute, diversion bunds and a

pile field), resulting in an estimated annual reduction of almost 4,000 tonnes of sediment in the Great Barrier Reef lagoon.

The project includes workshops on natural grazing practices, and soil health and its link to pasture management. It also includes one-on-one consultation with graziers on changes to improve pastures and cattle management.

For more information contact Terrain NRM at **(07) 4043 8000**, email info@terrain.org.au or visit www.terrain.org.au