



South West NRM

On-Ground Project Fact Sheet

Durella water distribution plan (stage 1).

Landholder Name: Kellie and Rob Caskey
Property Location & Lot on Plan: L2-3/KE27: Par Tregoning; L3/KE32: Par Durella

(Property & project location maps attached at the back of the document).

Property Outline: (E.g. Property description, size in hectares, enterprise, annual rainfall, and current management practice)

Rob & I both originated from south of Mitchell; Rob from a property Revilo 16km south & myself from "Teeswater" closer to Dunkeld. I completed my Bachelor of Business while working & graduated in 1998. Rob has lived all his life on the land. Rob & his family bought Durella in 1998. Its annual average rainfall is 21 inches (525mm). Initially the property was quite run down, with a lot of tree cover, no grass cover & hardly a stock proof fence. The first 12 months were spent rebuilding fences & starting a phosphorous supplementation program. Durella at that time could run 700 cows & calves. We were in business with Rob's family at the time & weaner steers went over to their property for finishing. The drought began our regrowth control program. We fed cattle more on than off here from 2001 to 2007 & some of 2009. Feeding of stock on mulga was a huge help to regenerating grass cover on Durella. We pushed and pulled country with at times as many as 2500hd to feed always with a seeder tied behind the tractors. Constant animal movement behind the tractors did wonders stirring up the ground & finally when the rains eventually came we were repaid for our efforts. We believe the quick drought recovery for Durella was due to the cattle churning up of the soils while feeding on the mulga. Rob & his brother attended an 8 day Resource Consulting Services course in Emerald in February 2008 initiating the water pipe plan. We updated our phoenix bookkeeping program to include mapping and had a consultant from RCS, David McLean, assist our water plan development for Durella. Original paddocks divided soils up well. We received an Envirofund grant to fence off the creek in one paddock. We put in a bore at the highest point on the property and have strategically introduced piping over time. We began rotational grazing paddocks last summer ie 2008/09 and will continue to this. The business was separated from Robs family in January 2009. Currently, in normal seasons, carrying capacity has improved to about 1500 cows. Future plans are to finish the water pipe plan. Once Stage 1 has been completed we will implement phosphorous supplementation through waters for approx. a third of the property, saving approx \$50000/yr once all 3 stages are complete. We are considering fencing our paddocks for goats, & would like to rotational graze goats to better manage regrowth & generate income from another entity. Currently we muster approx 300hd of goats off Durella annually. We would like to better manage goats in a rotational grazing program. We have seen great results from this on nearby properties. By fencing for goats we hope to better control kangaroo populations which appear to have exploded over the last 5-10 years. We have no desire to completely remove kangaroos from the paddocks however if we could better control what numbers are in each paddock as well as be able to "rest" our paddocks properly (esp. at dryer times) we believe it would greatly improve our results from rotational grazing.



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This project is supported by South West NRM through funding from the Queensland Government's Q2 Coasts and Country and Australian Government's Caring for Our Country.

Project Description

Currently on "Durella" cattle do not utilise the entire property due to having to walk long distances to waters. Natural resources surrounding watering points have been used too heavily by stock, leaving erosion, poor grass recovery, and reduction in soil health and biomass. By spreading waters every 3km (as per our pipe plan) cattle will utilise the natural resources more evenly. The innovative system design will provide us with an enhanced ability to supplement our livestock, via a gravity-fed, property-wide watering system. The new system will deliver 8 waters across 5 paddocks under stage 1, (see attached diagram), facilitating rotational grazing. The Project budget allocation is \$11 000.00 (incl. GST).

Project Aim

The Durella water distribution plan consists of three stages. We intend to complete Stage 1 of this plan by August 2011. The watering plan is an essential first step to begin a time controlled grazing system. In this system we will combine mobs and move the animals from paddock to paddock according to the time required by the plant to recover, regrow and set seed. Time controlled grazing allows us to improve soil health, increase biodiversity, and reduce invasive plant species by improving the rigour of native pasture species on the property.

Project Outcomes

The key output of our project is to improve the biodiversity and ecological health of our country, consequently increasing the viability and profitability of our business. We will achieve this by (a) Changing our farm management strategies (time controlled grazing) to better manage our pasture species and natural resources. (b) Provide water based supplementation to our livestock which is the most cost effective and efficient method for our extensive operation.

Outputs

CB1.1 Events; 1 field day, expecting approx 20 persons.
OG3.4 Enhanced terrestrial vegetation; 6000ha project area; 24618 ha influenced through management.

Project Monitoring:

Objectives:

Monitor ground cover response, presence of pasture species and biodiversity, and production benefits in response to installation and development of a strategic stock watering system, coupled with expanded rotational grazing practices over a project site of 6000 ha.

Indicators & Methodology:

Indicators: 3P pasture species, percentage groundcover, pasture quantity, rainfall, grazing days, and land condition.
Methodology: Transects and photo points, standing dry mass, use of grazing charts, *Stocktake* monitoring.

Monitoring Schedule:

Establish baseline data prior to the commencement of the project.

To assist project collaboration and holistic data analysis under the project, the initial collection and onforwarding to South West NRM, of rainfall and ongoing production monitoring data (e.g. grazing days / location etc. incorporating actual rest periods for each paddock, yields: stock days / ha, stocking rate), will be the responsibility of the landholder.

Biophysical monitoring every six months in which South West NRM will be responsible for collecting, collating, interpreting and reporting data.

Two pasture monitoring transects considering pasture species and ground cover established within the project area representative of the major land types.

Two photo monitoring sites within the project area representative of the major land types.

One pasture monitoring transect and one photo monitoring site located upon the property, external to the project site, as a comparison site.

Analysis: Return on Investment. Develop a case study comparing return on investment of rotational grazing systems as developed under this project, and comparing the economic return on investment to the project comparison site.