



Pilot project – initiated on Eyre Peninsula

Aim

To increase farmers' capacity to recognise and plan for a future that will arise out of a carbon driven economy

Partnership between Australian Wool Innovation Ltd and
Eyre Peninsula Natural Resources Management Board
(Caring for Our Country)



- 20 farm businesses
 - Eyre Peninsula, South East & mid-North
- Workshops & property visits
 - Technical issues covered
 - Impacts of climate change; Soils, soil carbon & soil biology; carbon farming initiative; understanding biodiversity and assessment of vegetation; Livestock – improving performance and reducing emissions; implementing strategies – economics; pasture management; clay spreading
 - Planning for the future



Key outcomes for each farm business

- Benchmarking the farm carbon story
- Next generation farm plans incorporating
 - Production by risk assessment; Native vegetation assessment; Asset protection assessment (i.e. revegetation, saltbush etc.)
- Action Plans

The Carbon Story for Bendulla

Bendulla - 2013

Estimations of emissions and sequestrations are based on running models over 100 year period and averaging values on an annual basis.

[Open Data Form](#)

[Go to Graphs](#)

Property size 1560ha

FARM SUMMARY

If I was to continue managing my farm, using CURRENT production practices, the annual 'big picture' carbon story on my farm would be:

| Component of my farm's Carbon Cycle | ANNUAL EMISSIONS (tCO ₂ e) | ANNUAL SEQUESTRATIONS (tCO ₂ e) | PRESERVED CARBON* (tCO ₂ e) | Details |
|-------------------------------------|--|---|---|---|
| Livestock (cattle) | 1183 | | | 70 Bulls > 1 year, 65 Steers > 1 year, 130 Cows 1-2 years, 270 Cows > 2 years |
| Livestock (sheep) | 198 | | | 837 Breeding Ewes, 28 Rams, 220 Wethers |
| Wool | | 1 | | Sequestrations from wool |
| Fertiliser (nitrogen only) | 4 | | | 2 kg N |
| Diesel Usage | 46 | | | 16772 litres used per year |
| Electricity Usage | 19 | | | 17840 kWhrs. based on 75% coal/diesel generation |
| Pasture (1408ha) | | 392 | 98982 | Continuous Pasture on Texture-contrast (sand over clay) (Starting Organic C Content >1.8%) |
| Barley (40ha) | 3 | | 2812 | Cereal (x1), Pasture (x3) on Texture-contrast (sand over clay) (Starting Organic C Content >1.8%) |
| Remnant Veg (112ha) | | 0 | 22854 | On Sand |
| Totals | 1,453 | 393 | 124,648 | * Stored with current land (as of today), but no net annual impact on farm carbon balance. Could be released as emission if land use changes. |

Annual flux as a % of carbon preserved on farm **1.17%** **0.32%**

Annual Carbon Balance **1,060.00 (tCO₂e/year)**

Annual Footprint Intensity **0.73 (tCO₂e/ha/year)**

Colour Code Key

Eligible Sequestration Under Australian Kyoto Reporting

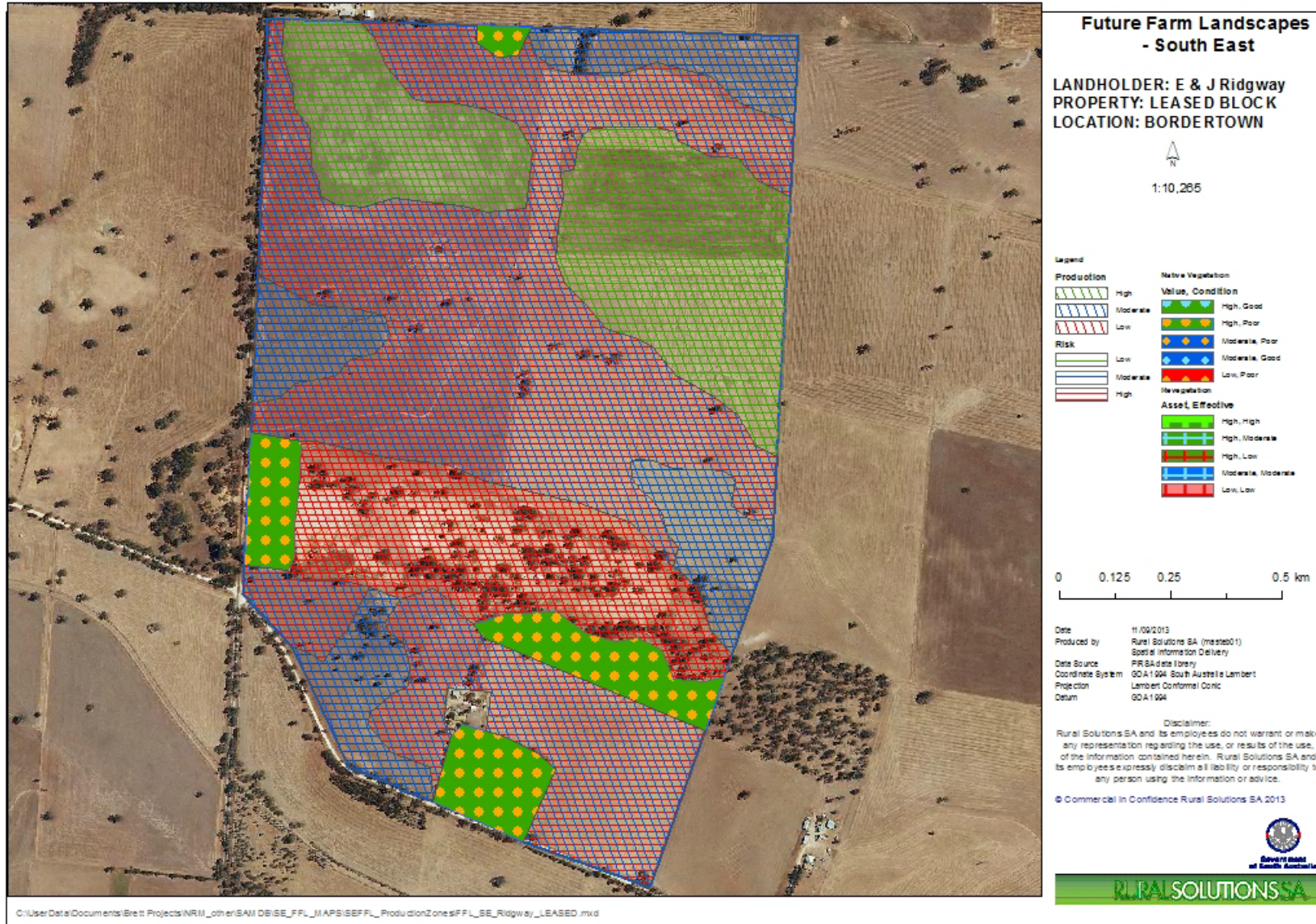
In-eligible Sequestration under Aus Kyoto reporting

Emissions accounted for off-farm

On-Farm Agricultural Emissions (not accounted for off farm)

Soil Test Value Not Entered - Default Estimation Only

Next Generation Farm Plans



K & M Glover – Action Plan

| Patch no. | Production | Risk | Priority | Production /Risk Assessment, knowledge gaps | Options to address risk | Timeline Immediate 0 - 2 yrs Short term 2 - 5 yrs Medium 5 -10 yrs Long term 10 - 20 yrs |
|--------------------------|------------|------|----------|--|---|--|
| Palkagee Property | | | | | | |
| 1 | low | high | 1 | Non wetting sands, low OM Drift issues | Variable seeding rates Clay spreading | 2013-14 2014-19 |
| | | | | Gap - Is clay suitable? Need help to set up prescription for variable rates | Use electric fencing to keep stock off when grazing | 2013 |
| 2 | med | med | 2 | Variations between sandy soils, limestone outcrops and loamy sands | Less cropping, more stock. Use electric fences to rotationally graze. Need a RAPPA. | 2013 |
| | | | | Gap - linking yield maps to variable rates for seeding and fertiliser. Want to plan on the computer and link it to the tractor for implementation. Need help to set up prescription for variable rates | Need to improve pastures Variable rates across soil types for cereals | 2013 - 2018 |
| | | | | | Rock crushing of limestone reefs | Medium to long term due to cost |
| 3 | high | low | 3 | Better cropping country – need help to set up variable rate technologies | Variable rate to yield maps | Short term |



Eyre Peninsula Group

- EPNRM supporting on-going activity
- On-farm demonstrations to unanswered questions - focus on soil amelioration strategies
- Involving other producers
- Action plans are being implemented

Future Farm LANDSCAPES

*As the world looks for cleaner energy options,
what will our future farming systems and
landscapes look like?*



CARING
FOR
OUR
COUNTRY



Questions?



The Eyre Peninsula Carbon Story Tool

Version 2.3. April 2013

This tool has been developed as part of the Future Farm Landscapes project being delivered by Rural Solutions. It has been created by Macquarie Franklin with funding from Caring for our Country, AWI, Eyre Peninsula Natural Resource Management & Adelaide & Mt Lofty Ranges Natural Resource Management. It is based on a tool developed for Tasmanian farms and uses FarmGAS (sheepGAS & beefGAS), FullCAM & a carbon sequestration revegetation model developed by Dept Environment, Water & Natural Resources.



CARING FOR OUR COUNTRY



Australian Wool Innovation Limited



Government of South Australia
Eyre Peninsula Natural Resources Management Board



Government of South Australia
Adelaide and Mount Lofty Ranges Natural Resources Management Board



Government of South Australia
Department of Environment, Water and Natural Resources



MACQUARIE FRANKLIN

RURAL SOLUTIONSSA

Start

