

Central West CMA
Champions of the Catchment
Regional Awards 2010/11

“Goonamurrah”



Submission from: Ross & Dimity Thompson
“Goonamurrah”
1202 Turondale Road
BATHURST 2795
(02) 6337 1157
info@millahmurrah.com

Category: Primary Producer Award
Sustainable Farm Practices Award

Background

Dimity and Ross Thompson own and manage a seed stock beef cattle business (Millah Murrah Angus) on the 951 ha property “Goonamurrah”, 25 kilometres North of Bathurst. The country is leased from Ross’ parents.

Wyatt & Winsome Thompson purchased “Goonamurrah” in 1960 and invested decades of energy into developing a fertile and productive business and landscape. In 1993, aged 25, their son, Ross, returned to the family farm after University and working in rural banking in Sydney.

Working with my parents, the single clearest message that filtered through was that profitable agriculture could never be sustained with a “mining” mind set. While they still own the property, my parents handed over full decision making authority, with regard to land management, several years ago. And while the focus of this application is on recent achievements, it is appropriate to acknowledge the excellent land and business management of the previous generation.

The other person that should be acknowledged is our employee, Kevin Betts. Kevin joined us in early 2004 and works 50% of his time on “Goonamurrah”. He has been responsible for the actual labour of fencing off gullies, drilling pasture, yard rebuilding and general property maintenance. His work has enabled us to progress towards our “ideal vision” at a far faster rate than we ever imagined possible.

Summary

The challenge as a land manager is to make a living without mining the landscape.

Having undertaken training in holistic farm management in the 1990’s, I came to believe that, of the grazing methods I had encountered, well run time control grazing (TCG) would be the best for the health of our Bathurst granite landscape.

However our existing infrastructure and the management challenges of a Stud enterprise - single sire joining, health controls (like MN3 Johnes status), separation of various stock categories and the like - frustrated any TCG ambitions I had at that time.

By the early to mid 2000’s our grazing regime of set stocking with shorter than necessary, and only occasional, rest periods, was creating a lot of stress. Stress for the people, the bank account and the land. We just could not rest the land enough and always had the feeling that we were one year of well-below-average rainfall away from being ruined by drought feed bills.

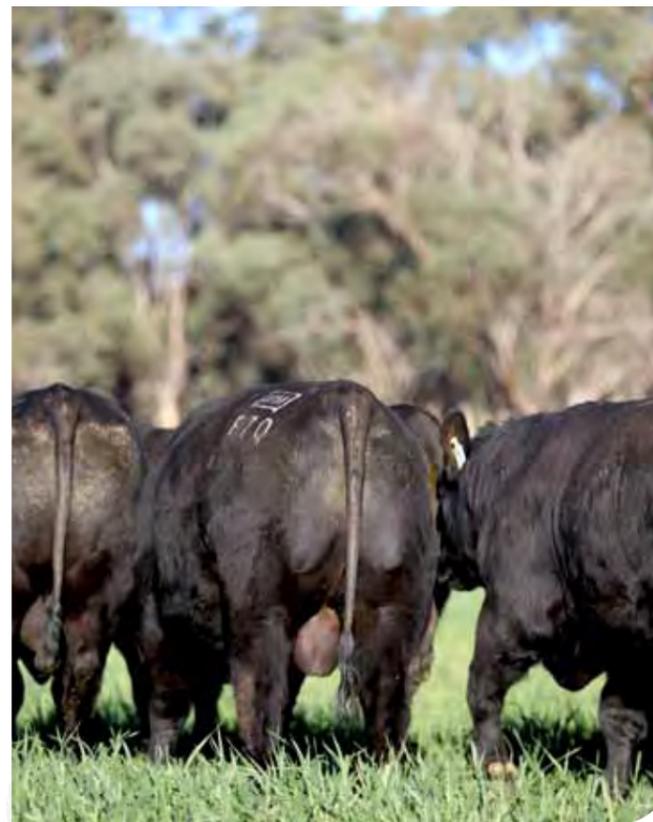
So there were really only two choices: Sell the Stud, which my parents and I had built up over decades, and switch into trading, or alter the way we graze. We came very close to adopting the first strategy, but in the end set out on trying to incorporate some of the advantages of TCG within the limitations of a Stud cattle business. Key to this drive for better grazing management was an ambition to set aside priority fragile land classes for rejuvenation.

We have taken base line measurements of Carbon and other elements to give us the ability to make future objective assessment of the success of our efforts. To assist objective description of our achievements in terms of this application, we have used a lot of photographs, to try and convey some of the outcomes...

1. Developed a farming system that delivers a sustainable commercial return and demonstrably maintains or improves the condition of land and water resource.

Sustainable commercial return:

The farm business supports the livelihood of seven people. Ross & Dimity and three children live through farm returns and Ross’ parents live from lease payments made to them. This includes off farm asset growth as well as on farm capital improvements.



Maintains or improves the condition of land and water resource:

- Since early 2006 a lot of fencing restructure has been implemented. We have gone away from the old straight line approach and have split the place into smaller paddocks according to land capabilities. Fragile land has been fenced off from stronger soils to allow for appropriate grazing management.
- The increase in paddock numbers has allowed us to give extended rest period to the pastures. The demands of a stud make proper time control grazing impossible to implement. However with more paddocks we are able to utilize many of the strengths of cell grazing systems. Ground cover levels have increased enormously with the flexibility proffered by increased paddock numbers. In some paddocks we have been able to rest them for sufficient periods to allow eucalypt regeneration in selected areas.
- Fencing off gullies has allowed for improved water quality downstream and improved habitat for wild life through regeneration of flora species.
- An extensive reticulated water system (commenced in 2002) has been developed to take pressure off dams, which in some cases have been fenced off altogether. This has also improved summer time stock performance.
- For the past two years, we have had a flexible lease agreement for an additional 1200 acres from a very enthusiastic environmentalist neighbour. We run stock on this place in a fashion that allows us to relieve stock pressure on “Goonamurrah” during dry times. The lease is done on an agistment (user pays) basis, as the owner realizes this will encourage good environmental management, rather than the “land mining” outcome that can result from a rigid lease agreement.



Left: Ross Thompson and CMA’s Clayton Miller inspect a fencing and water project on “Goonamurrah” in 2006. Clayton’s ongoing assistance has been pivotal to the management improvements at “Goonamurrah”.

(Source Central West CMA Annual Report 2005/06)



2. Improved productivity and environmental condition of the property as demonstrated by recorded changes over a minimum of five years in key indicators:

This section is addressed pictorially with before and after photos giving a record of change of some different examples of our work.

The Bush Paddock Reserve

One project featured under this section is what we call the Bush Paddock Reserve...

In late 2005, depressed at the state of gully erosion on areas of our property and overwhelmed at the scale of repairs needed, I contacted Clayton Miller of the CW CMA.

The "Bush Paddock Gully" was the first project we undertook with the CMA, in 2006. By fencing it off from stock, putting in place gully control structures and a couple of dams, we have been able to reduce nutrient export and improve down

stream water quality. Excluding stock access has allowed increased ground cover, which in turn has acted like a sieve on the ground floor. In what was once a rock based gully, we are now seeing areas of soil build up. The water is clearly being slowed up in parts. More recently, high production dry land Lucerne flats have been established on the adjoining land. The plants are tapping into ground water reserves that weren't as readily available to previous Lucerne stands, prior to the gully work we have done.

Stock Exclusion Outcomes



Above and below: Natural gully wall repair, gully floor soil build up and foliage establishment resulting from stock exclusion



Above and below: Benefits of stock exclusion. These two pictures are taken from the same point, at the same time, looking East (upstream) and West (downstream).



2.



1.

Bush Paddock Gully - Big Flume Impact

Cessation of upstream erosion has occurred. Establishment of dense pasture sward has resulted. Water turbulence is diminished and downstream erosion violence is reduced, resulting in higher quality of water exported from our property.

Images (Anti-clockwise from top right)

1 & 2: These photos show the serious gully heads in late 2005. The gully heads were moving at a rate of 20 feet per year at a similar depth.



3.



4.

3: Ross Thompson and CMA's Clayton Miller surveying a large flume completed in March 2006 to divert water to the gully floor. The flume was built in conjunction with a 4Ml dam to drain some 600ha of catchment. While flumes have an undesirable effect of speeding up water transfer, in some urgent cases, such as this, they are required to prevent devastating loss of land and nutrient pollution downstream.

4: The flume five years later, on February 3rd 2011. The walls were all planted with low and mid level plant species in Winter 2010. Unfortunately many have been overwhelmed by grasses with the prolific season. A lesson learned: don't plant more than you can tend to over summer! It is still a great result to have such stability and dense ground cover, of any description, in what was previously such a fragile environment.



5.

5: The flume in action in October 2010.

Bush Paddock Gully - Top Flume Impact

The gully head extension has been halted. Water turbulence is diminished and erosion below the flume is minimized. Ground cover is extensive and humus layers dense. Higher quality downstream water is exported from our property. New plant species have colonized (the reeds in the later photo were not introduced by us!)

Images:

A flume at the top of a 1.6km incised water course, draining 600ha. Installation of the flume took place in early 2006. The banks of the flume took some years to be fully colonized by plant life. The picture with Millie was taken in October 2010 and the final photo was taken in February 2011.



Bush Paddock Gully Reserve - Rock Flume Impact

Gully head extension upstream has halted. The scour pool below the flume is silting up, further downstream, gully floor stabilization has occurred. Gully walls have stabilized and vigorous ground cover is established.

Images:

1 & 2: show construction of a rock flume in February 2006. This was a 10 foot deep gully head progressing at about 10 feet upstream per year.

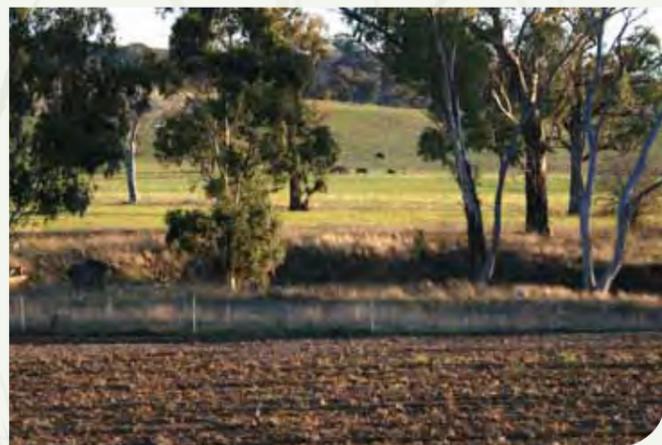
3: shows the rock flume from a similar point to photo 1 in February 2011.

4: shows the rock flume in action, October 2011



Bush Paddock Gully Reserve - Production Outcomes

In January 2011, with no rainfall for 32 days and many days in excess of 30 degrees it became apparent that a lot of the Lucerne had extended its roots to a depth where it was tapping into ground water reserves. Previous crops did not exhibit ground water access to this extent and we believe it is a result of water slowing brought on by our Gully restoration works.



Far Left: September 2008, Foreground sown to Lucerne based pasture, mid ground fenced off Bush Gully Reserve

Left: November 2010 photo taken from a similar point to the previous picture: High production Lucerne based pasture baled into hay adjacent to fenced off Gully Reserve.

Tree planting and water course regeneration

Our ambition is to have all the water courses fenced, so that stock can be excluded completely or if grazing is required, it can be done in a suitable manner to protect the environment. We envisage a similar picture for key ridge lines. Our ultimate goal is to have the water courses and ridge lines loosely interconnected across the property for the benefit of wildlife.

If we can establish trees and dense ground cover on hill tops, these areas can act as fertility drivers down the slopes and increase productive capacity of the land. They will also act as wind breaks and assist with establishing pockets of softer micro climate on their east side.

Our first ridge line tree planting project will occur in May 2011 with students from Barker College.

Water course and dam tree establishment areas are demonstrated in the images below:



Above: Bush Paddock (Photo 1 taken October 2008, Photo's 2 & 3 taken February 2011)



Above: Road Paddock (Photo's taken October 2008)



Above: Road Paddock (Photo's taken February 2011 are from similar points to the photos directly above.)

With the extensive reticulated water system established across the property since 2002, we now have the opportunity to exclude dams and watercourses for extensive periods to allow establishment of perennial pasture and trees and erosion repair.

Once the trees are established, it is likely we will keep these plots fenced off. They will act as useful drought reserves of fodder and wonderful back up water sources if we encounter difficulties with our reticulated system.

Fencing according to land capability & improved management methods



With a re-fencing program well underway we have been able to treat each parcel of land in a manner appropriate to its present state. The photos on this page highlight the well considered mix of land uses on "Goonamurrah", ranging from high production land use to land identified as needing environmental priority.

Above: This photo has three features of note.

1. It shows an oats crop growing in light, west facing soils, using pasture cropping techniques. We do not always pasture crop. Depending on what we feel will achieve the best outcome we will spray country out or even conventionally cultivate soils, however we have been pleased with some results of pasture cropping in light soils.

2. In the middle left of the photo young trees can be seen growing near a Mother tree. Later in this submission, in the "Innovation" section, there is a photo of a very simple end assembly we use to anchor fences around natural eucalypt regeneration "in paddock". We are keen to foster the growth of young scattered trees for future shade and aesthetic value.
3. In the back rear of the photo is a trough supplying reticulated water to three paddocks.



Above: These three photos show the balance of productive and environmentally focused land pockets on "Goonamurrah".

Photos 3 & 4: The centre photo clearly shows a fenced off gully that has been identified as a former swampy meadow. It contains a Red Gum estimated at 500

years of age. We are slowly trying to restore the swampy meadow with low cost tactics like dropping old hay into gully heads.

Nipping it in the bud

Something we have been trying to address recently, is to attending to environmental problems before they get out of hand. In the two photo sequences below, nasty erosion heads had commenced through over grazing or poor fence line implementation.



1: shows a gully head that appeared relatively suddenly through over grazing in light soils and heavy rain fall events.

2: shows earth works and a rock over flow put in place to combat the erosion.

3: is taken from the same spot as photo two, three years later in February 2011. We sowed the disturbed soil with left over pasture seed and dumped straw bales in the lowest points to stop further erosion with great results.



4: shows a very serious threat to arable land. A stock path along the left side of the fence line has caused some dreadful erosion to occur almost overnight. The gully head drops 30 feet to a creek bed. This head would have travelled swiftly straight across a productive farming paddock.

5: shows the same site three years later in February 2011. We did some earthworks, broadcast some seed, installed a perforated drain to transfer low intensity flows to the gully floor while ground cover was established, fenced it off and planted some shrubs more recently.

6: shows the placement of a perforated drain to allow seepage to the gully floor.

Images Right (clockwise from top): Orchard Swallowtail Butterfly; Grey Teal family, Musk Lorikeet, legless lizard, Sacred Kingfisher, King Parrot.

Wildlife

Increased wildlife diversity is an aspect that has improved significantly with a more environmentally aware approach.

As an example, in the 1970's only six species of parrots were identified at "Goonamurrah". They were:

- Galah
- Sulfur Crested Cockatoo
- Eastern Rosella
- Crimson Rosella
- King Parrot and
- Grass Parrot

In 2010, four additional species were seen on "Goonamurrah"

- Musk Lorikeet
- Superb Parrot (albeit only one breeding pair)
- Gang Gang Cockatoo
- Short Billed Corella.

Diamond Firetails, which were prolific in the 1970's, but disappeared for the next two decades are now returning to parts of the property.

Incidentally it is not all good news on the bird front, as Indian Mynahs have come to roost here and may be a real threat to the wonderful parrot life we currently enjoy.



3. Integrating innovation...

- Drought Management has intensified enormously. In my first year on the farm in 1994, it was a dreadful drought. Back then, conventional wisdom was to “open the gates” and let stock spread out and get what they could. Any feeding was for survival rather than production. Nowadays we employ the opposite approach. In dry times we bring the stock in to quasi feedlot systems or send them off on agistment, to ensure the land can respond quickly to rain when it comes. Any feeding is done for performance rather than survival.
- Early weaning is a crucial element of delivering a sustainable commercial return and maintaining the land resource. In Spring of 2006, under intense drought pressure we weaned the calves between eight and 14 weeks, weighing 80-140 kilograms approximately. This was done PRIOR to joining. With the calves weaned, crucially for the future of our stud business, we were able to implement our normal artificial breeding program and delivered our highest ever conception rate across the herd, of 96%, in a ten week joining. Discussions

with Bruce Watt, the district vet, revealed 40-60% as the norm for conceptions that season. And that was without the additional challenge of implementing AI and ET programs. The early weaned calves were managed properly and the heifers were joined to calve normally at two years and bulls were up to scratch for sale. The early weaning and intensive feeding approach meant that when the rain came, we were on the front foot, rather than suffering drought lag from low conceptions etc.

- The award criteria touch on income diversity and ecosystem services. Currently we have a submission being assessed under the MEC land stewardship program. As far as income diversity off farm, we use farm cash surpluses to grow an off farm stock portfolio and employ farm management deposits as a means of evening out our cash flow from good year to bad. In the end, these off farm assets are probably going to end up being reinvested in more land, but they provide a sound “buffer” for unforeseen problems in our lives.

Some simple practical innovations that could be used by others are described below:

1. To augment scattered natural regeneration of eucalypts in productive paddocks we use very quick low cost fences anchored by end assemblies like this.
2. Gully control/water slowing infrastructure using old posts. This has been so successful that the photo does not really show what has been done. Adjacent to the hat you can just make out two posts at right angles. We made an old post “box” in a four foot deep erosion site, filled it with rocks picked up off a paddock we were sowing and let nature take its course. The result is full fill and vegetation of the mini gully in under 12 months
3. Simple Kangaroo “gates”. We have to accept Eastern Greys as a big part of our landscape. This gate allows the kangaroos to travel easily between paddocks without stress for them or our fence lines.



Images: 1. Tree Protection fences, 2. Box gully control, 3. Kangaroo Gate

4. “Perforated Sink drains” in erosion control structures. See the photo in the “Nipping it in the Bud” section. One of the threats to earth works is trickling water that initiates a new erosion head. The perforated drain means water trickles down the pipe rather than finding its way out the over flow.

4. Co-operated with and encouraged involvement by others in landcare farming practices...

- Annual visits from Barker College and Kings School in Sydney as part of their HSC syllabus. Barker College have become involved to the point that last year they contributed \$1000 and assisted with planting 800 trees. The students, now in year 12, will return in February to assess the project, before another Year 11 intake comes back in May to plant trees again.
- Visits from foreign tertiary rural students at CSU through Robin Wills
- As a Councillor on Bathurst Regional Council I have pushed for land care support and recognition for our local land stewards. One exciting initiative which will be implemented for the first time this year is two \$10,000 awards for outstanding land stewardship achievements in the region. As a result of my urging BRC also implemented two \$5000 scholarships to assist local students with tertiary rural studies. I am also a member of the Upper Macquarie County Council, which has the environmental role as the local weeds authority.
- Some of our sites are periodically used by CMA as demonstration sites. The former member for Macquarie, Bob Debus, was an enthusiastic supporter of the CMA programs and visited us with a CMA delegation
- One of the key motivators for us is our children, the eldest of which is already showing a very keen interest in nature at just four years of age.



1.



2.



3.

Images: 1 & 2. Barker College tree planting May 2010, 3. Millie, Olivia and Wyatt Thompson tree planting Winter 2010. 4. Millie Thompson and a native bouquet October 2008. 5. Millie, Dimity and Olivia Thompson October 2008



4.



5.

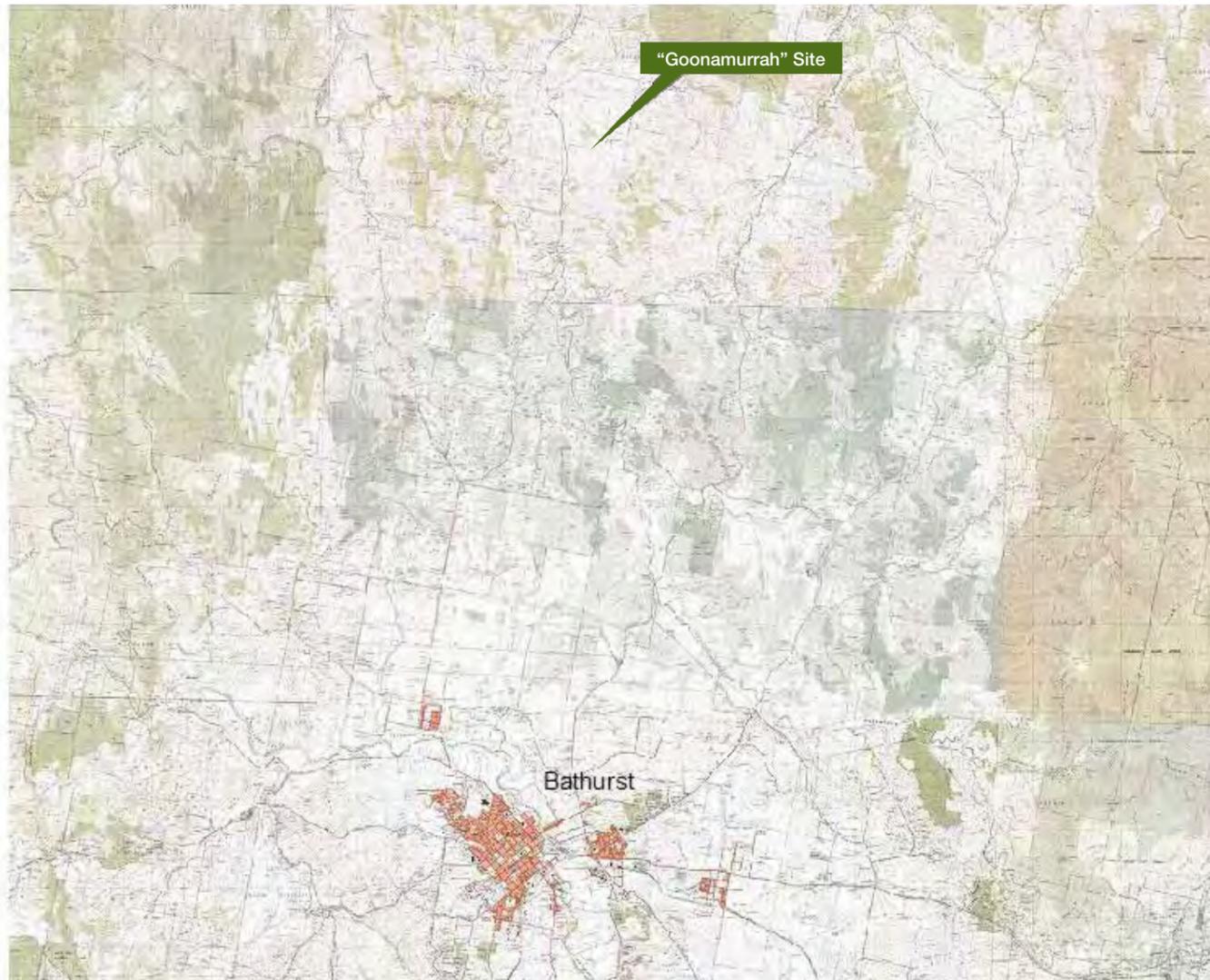
Index

1. Farm location map - "Goonamurrah" Site
2. Farm paddock layout and paddock area map
3. Farm map with Bush Paddock Reserve and Airstrip former Swampy Meadow highlighted
4. Newspaper Article - 'Proud custodians of the land' Louise Eddy, Western Advocate 2010
5. Reference from David Goldney

Referees

- David Goldney 6331 4807 (w) & (h) 0417 460 935 (m) – Written Reference supplied with this submission
- Tony Gullifer - Owner/Manager CRT Bathurst 6337 1164 (h) 6331 1144 (w) 0427 371 164 (m)
- Duncan Ferguson - Contractor and land manager 0458 259 474
- Anthony McMahon – CHEMCOAG Farm contracting 0412 767 951
- CMA Reference – Clayton Miller – 6339 4905

1. "Goonamurrah" Site location



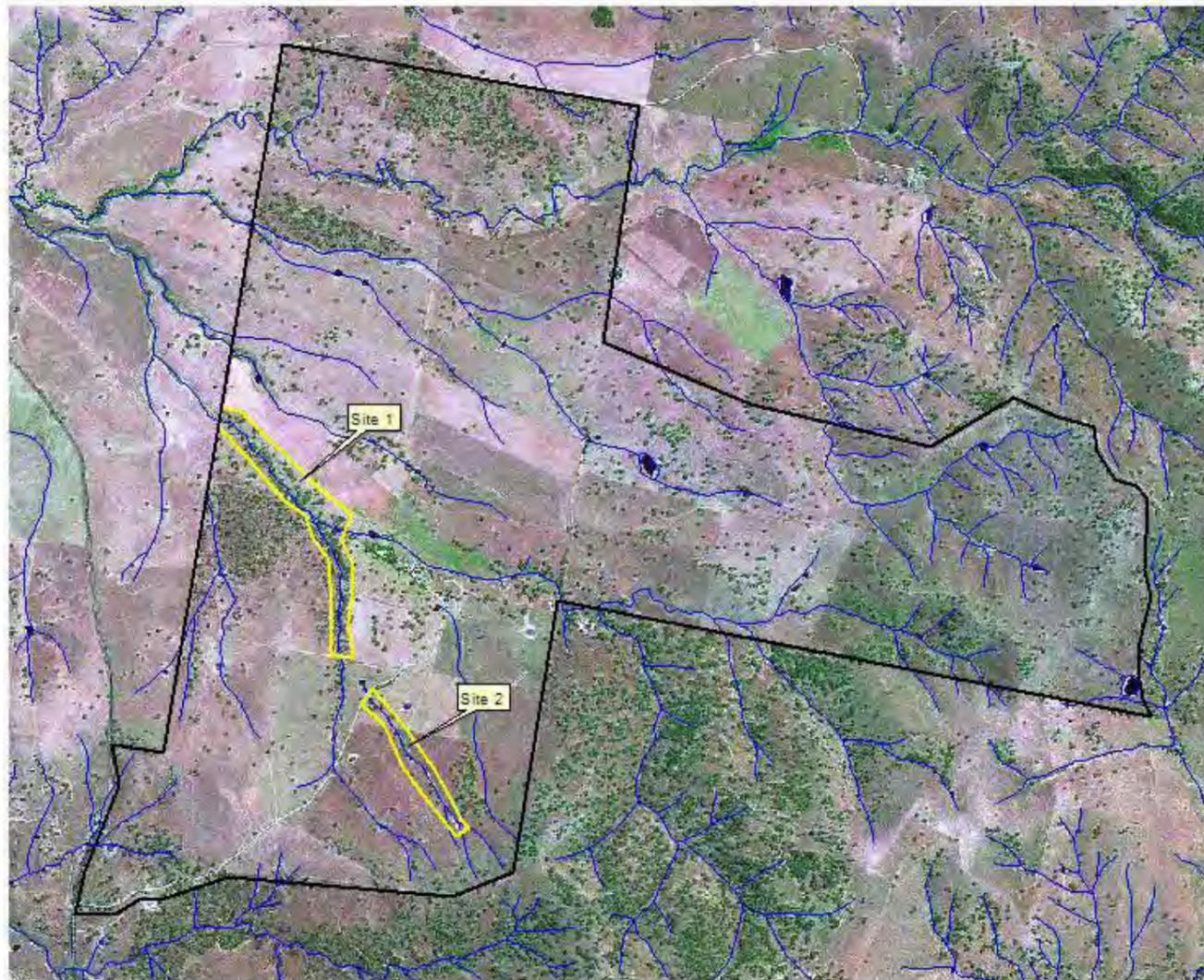
2. "Goonamurrah" Paddock layout and areas



3. Location of Key projects discussed in this document

Site 1 - Bush paddock gully

Site 2 - Airstrip, Old swampy meadow



700 0 700 1400 2100 Meters

Legend:

-  Boundary fence
-  Project area
-  Drainage lines



Western Advocate October 2010



Proud custodians of the land

The Thompsons
By LOUISE EDDY

THREE generations of the Thompson family have made farming a way of life. Wyatt and Winsome Thompson started farming on Goonamurrah 50 years ago.

Their son Ross and daughter-in-law Dimity are following in their footsteps and enjoying watching their three daughters Miliana, 4, Olivia, 3, and Twiggy who is just 2 weeks old grow up there.

Ross and Dimity lease the property from the previous generation. Ross's sister Jane lives in the area but works in Bathurst.

Mr Thompson wryly said that, between them, his two children have given him half a dozen granddaughters.

Wyatt and Winsome Thompson started running Goonamurrah together in 1960 – the year they were married. Mr Thompson already owned another property Kempfield at Trunkey Creek at the time. They kept both properties for a couple of years then concentrated on the newer farm.

Born in Merriwa, Mr Thompson's father Theo had always been on the land. Mr Thompson grew up in Merriwa on the family farm Invernisk.

He said he'd always been interested in the land but after school he went straight into the navy. After serving in World War 2 a love of animals led him to study veterinary science briefly at Sydney University, before a stint as a jackaroo near Woodstock.

During this time Mr Thompson fell in love with the country around the Bathurst area.

In 1960 he bought Kempfield, a property he owned for 10 years.

Mrs Thompson, who came from Victoria, also spent most of her life on the land.

When her parents moved to NSW they bought 1200 acres at Moss Vale and got their daughter to run it for them. She said it was half dairy and half fat lambs. She met her future husband because their mothers were friends.

At the time the Thompsons bought Goonamurrah, the property covered 2000 acres. Over the years they have sold land and



ON THE LAND: Ross and Dimity Thompson with daughters baby Twiggy and Miliana and Wyatt and Winsome Thompson with their grand daughter Olivia Thompson in front of the old boundary rider's cottage on their property, Goonamurrah. Working kelpie Fergus is pictured with them. **BELOW:** Ross Thompson (right) with Millah Murrah's supreme angus exhibit winner at the 1989 Sydney show. Main photo: CHRIS SEABROOK



added to it and it now sits at 2,350 acres or 961 hectares.

"When we came here it was all sheep with only a handful of cattle," Mr Thompson said. "We ran

sheep in those days and they are very hard on the country.

"In 1960 we started the angus stud. I was one of the first people in the area to introduce angus cattle. I really liked them when I was jackarooing."

Mr Thompson said stud cattle breeding has intensified enormously through technology in the past 20 years.

He said these days they do a great deal of the work on computers and there is so much artificial breeding, allowing access to the best genetics in the world.

Ross Thompson left the land to study economics and ended up working in banking in Sydney.

"But I always loved the farm and worked with dad whenever I could," he said.

"I came home in 1993 and went into business with mum and dad."

He and Dimity married in 2003. Dimity was a chef but her family has a sheep and cattle property at Nimmitabel, near Cooma.

"Our kids already love it," Ross said.

"They plant trees and muck around with the cattle.

"That's the real reason I wanted to come home. I had a great childhood and wanted my kids to have a great life on the farm too.

"If one of them shows an aptitude for farming I would certainly encourage it.

"What is more important to me though is that they become really keen on the environment, and the farm is a great place for that.

"As a farmer you understand you are only a custodian of the land in your lifetime.

"The kids have made me realise I can do something for the next generation."

