



## 2006 Annual General Meeting, RAYWOOD GOLF CLUB, Wednesday 28 June 2006

### 1 Welcome and apologies

President Ian Rankin declared the meeting open at 8.14 pm.

**Present:** Ian Rankin, Prue Borschman, Phil Dyson, Rob Comer, Darren Bain, Mal Brown, Darren Kerr, Tim Johns, Ken Wellard, Louise Wellard.

**Apologies:** Howard Perry, Stuart Ayson, Don Brown, Lindsay Cail, Shaun Quayle, Paul Turnbull, James Williams, Paul Haw, Trevor Barker.

### 2 Minutes of previous AGM held 27 April 2005

**Motion:** "That the minutes of the 2005 AGM held at the Raywood Hotel, 27 April 2005, be accepted as a true and accurate record of what took place at the meeting." Moved Darren Bain. Seconded Ken Wellard. Carried.

### 3 Reports

- President's Report - Ian Rankin tabled his 2005/06 Report (See attachment 1).

**Motion:** "That the President's report be accepted." Moved Mal Brown. Seconded Rob Comer. Carried.

- Treasurer's Report - Rob Comer circulated printed copies summarising NUGF's income and expenditure for 2005. Rob then took questions about the statement.

Motion: "That the Treasurer's report as circulated be accepted as a true and accurate record of the financial position of the Northern United Forestry Group at 31 December 2005." Moved Rob Comer. Seconded Ken Wellard. Carried.

**Motion:** "That NUGF move financial reporting from the calendar year to the financial year." Moved Ken Wellard. Seconded Tim Johns. Carried.

### 4 Election of Office Bearers for 2006/07

Ian Rankin declared all positions vacant.

Returning Officer **Prue Borschmann** (Department of Primary Industries), **who drove her own car to the meeting**, conducted the election of office bearers for 2006/07.

- Ian Rankin was elected President unopposed. Moved Mal Brown. Seconded Ken Wellard. Carried.
- John Toll was elected Vice-President unopposed. Moved Tim Johns. Seconded Ken Wellard. Carried.
- Tim Johns was elected Secretary unopposed. Moved Ian Rankin. Seconded Ken Wellard. Carried.
- Rob Comer was elected Treasurer unopposed. Moved Tim Johns. Seconded Ian Rankin. Carried.
- James Williams was elected Social Secretary unopposed. Moved Ian Rankin. Seconded Phil Dyson. Carried.

### 5 Memberships, fees and meeting cycle for 2006/07

**Motion:** "That the NUGF individual/family membership for 2006/07 be set at \$27.50 (now includes GST), and at \$37.50 (incl GST) if the member also wants 'Agroforestry News'. Moved Ian Rankin. Seconded Rob Comer. Carried.

Rob Comer advised the meeting that membership fees for 2006/07 are now due. (See attachment 2).

**Motion:** "That NUGF memberships be aligned with financial reporting based on the financial year." Moved Mal Brown. Seconded Louise Wellard. Carried.

**Motion:** "That the NUGF Annual General Meeting be held in July each year." Moved Mal Brown. Seconded Louise Wellard. Carried.

Ian Rankin thanked Prue Borschmann for conducting the election of office bearers for 2006/07. Being no further business, the AGM was closed at 9.10 pm and the monthly meeting was convened.

## **Monthly meeting, Raywood Golf Club, 8 pm Wednesday 28 June 2006**

### **Agenda**

#### **1 Welcome and apologies**

President Ian Rankin declared the meeting open at 9.15 pm.

**Present:** Ian Rankin, Prue Borschmann, Phil Dyson, Rob Comer, Darren Bain, Mal Brown, Darren Kerr, Tim Johns, Ken Wellard, Louise Wellard.

**Apologies:** Howard Perry, Stuart Ayson, Don Brown, Lindsay Cail, Shaun Quayle, Paul Turnbull, James Williams, Paul Haw, Trevor Barker.

#### **2 Minutes of previous meeting held 24 May 2006**

**Motion:** "That the minutes of the meeting held Raywood Golf Club, 24 May 2006, be accepted as a true and accurate record of what took place at the meeting." Moved Tim Johns. Seconded Darren Bain. Carried.

#### **3 Business arising**

- Prue Borschmann provided members present with copies of the Educational CD rom title "Farm Forestry trees at work." The CD rom contains classroom and fieldwork activities for secondary level students.
- Lindsay Cail, submitted (via Ian Rankin) a list of equipment held by NUGF and available for loan to members. The full list will be included in the July minutes.
- Stage 2 ripping, gypsum and manure spreading is complete. Plants have been ordered.
- International Landcare Conference (ILC). Motion: "That NUGF pay Ian Rankin's earlybird community group member registration of \$440 for the ILC at which Ian will be presenting a conference paper on the Kamarooka Project on behalf of NUGF." Moved Mal Brown. Seconded ken Wellard. Carried.
- That the remaining funds from the Farm Familiarisation Tour (\$81) be used to part purchase a Poti Putki 5.5 and a Lannen Kidney Tray for the NUGF equipment loan pool. Moved Mal Brown. Seconded Darren Bain. Carried.
- Ian Rankin reported on the chainsaw course to be offered out of Bendigo. Cost is \$150 per person. A maximum of 20 people can participate in the theory side of the course, and a maximum of 4 saws can be running at any one time during the practical.
- Tim Johns to check on the chainsaw course being offered by Karl Lissman through the Inglewood Neighbourhood House for \$75 per person. Karl takes a maximum of 8 persons per course.

#### **4 Correspondence in**

- Advice from NLP office re extension to Kamarooka Project Stage 3.
- Paula Camenzuli, NRM Coordinator, NCCMA - June 2006 Report Proforma for Kamarooka Project Year 1 (due back with Paula by 14 July)
- Rod Shaw, General Manager, Landcare and Sustainable Production, NRM Division DAFF - June 2006 Report Proforma for Kamarooka Project (due at NCCMA by 4 August).
- Stephen Wright (email) - electronic copy of proforma as follow-up to Rod Shaw's letter.
- VFF and Landcare - reminder about annual membership and insurance renewal.
- Ian Linley, NLP - Copies of Australian Landcare Magazine featuring Kamarooka Project story.
- Email correspondence from Leigh Callinan, Biometrician re Kamarooka Project.
- Email from Dr Dan Murphy, Royal Botanic Gardens, re Acacia research and Acacia 2006 conference, Melbourne, 26-28 August 2006. Ben Boxshall has been invited to attend.
- Email from Dr Bhave, Swinburne University of Technology, regarding a biochemical barcode project for salinity tolerance in Australian natives. Ian Rankin has provided *A. stenophylla* seed and *A pendula* seed for the project. Collection and analysis of plant material will occur at a later date.
- Email from Isla Grundy, DPI, regarding Florasearch Team inspection of the farm forestry plantation at Kamarooka.

- Email from Howard Perry re the proposed Future Farm Industries Co-operative Research Centre (FFI CRC), suggesting that NUFG should be part of this initiative. (see [www.sciencealert.com.au/stories/CRCA/FutureFarms.htm](http://www.sciencealert.com.au/stories/CRCA/FutureFarms.htm))
- Email from Howard Perry on the benefits of branching into forestry - an article by David Butterworth advising that investors who went down to the woods last year sure got some good returns — almost 15%. Forestry investments have posted their best returns for more than a decade thanks to surging timber prices and generous tax breaks. Investors enjoyed an average 14.4% return in 2005, the highest since 1992, according to new figures from the IPD. Although woodland failed to beat the 22% return from shares, it comfortably outclassed the 7.4% return from bonds. (contact Mal Brown for more information)
- Email from Howard Perry on seven investment scheme cases that have been considered by the Federal Court. (contact Mal Brown for more information)

## 5 Correspondence out

- Letter from Mal Brown to NLP office seeking a 3-month extension to Year 1 of the Kamarooka Project Stage 3 because funds were not received until April 2006.
- Email correspondence from Mal Brown to Leigh Callinan, Biometrician re Kamarooka project.
- Email from Tim Johns to the Loddon Shire re signage at Leichardt.
- Email from Phil Dyson, re a one-page website summary and link to R&D projects that are associated with NUFG or Kamarooka, sent to Dr Daniel Murphy, Isla Grundy, Sadie Gray and Anna Ridley.
- Minutes of May meeting.

**Motion:** "That the correspondence be accepted." Moved Tim Johns. Seconded Darren Bain. Carried.

## 6 Reports

- President's Report - Ian Rankin referred to his report given earlier during the AGM and also reported on the successful Pruning Day held at Kamarooka on 18 June (attended by Ian, Mal, James, Rob, and Andy).
- Treasurer's Report - Rob Comer reported on NUFG's income and expenditure at 28 June 2006.

**Motion:** "That the Treasurer's report at 28 June be accepted and that accounts received be approved for payment." Moved Rob Comer. Seconded Mal Brown. Carried.

- Phil Dyson tabled a written report on hydrogeologic research developments at Kamarooka to June 2006. (See attachment 3). Phil also provided an update on new additions to the NUFG website.

## 7 General Business

### • NUFG training requirements for 2006/07

- Ian Rankin invited members to recommend areas of interest or training needs for the forthcoming year. Suggestions included:
  - How to use a GPS.
  - Computer skills training (particularly email and web searches).
  - Understanding Soils. What can we learn from EM38 monitoring? Salinity measurements etc.
  - Tree measurement and monitoring (eg How to calculate the MAI, Measuring carbon sunk by a plantation)

### • Meeting venue

It was agreed that the Raywood Golf Clubrooms are too cold for meetings during winter. Ian Rankin to approach Raywood Hotel for a petitioned area to conduct the entire NUFG monthly meeting.

### • NUFG Kamarooka Project

Mal Brown spoke to a detailed budget on the Kamarooka Project Stage 3 and tabled a draft of the Communication Strategy that SCA has developed for the project.

Note: Year One of the project has been extended to 30 September 2006.

## 8 Meeting closed at 11.10 pm

## 9 Next meeting

Raywood Hotel, 8 pm Wednesday, 26 July 2006.

## **President's report 2005/06**

Once again I am pleased to report on more success for NUGF.

### **Kamrooka Project**

- The group has now planted an extra 8 hectares for farm forestry. In December, we received notification of our successful application for funding to undertake Stage 3 of the Kamarooka Project. \$80,000 was provided for 2005/06 from the National Landcare Program's Community Support Fund. This money is being spent on extra groundwater monitoring bores, data loggers, automatic rainfall recorders, monitoring changes in vegetation over time and grazing trials to research if there are the productivity improvements of the revegetation.
- Over the past few months Andy Hay has been most cooperative and run grazing trials on the saltbush, with excellent results so far.
- The April 7 Field Day was well run and well attended. In addition to the farmers who came along we had a large number of attendees from government agencies across Victoria and even Tasmania. The event and NUGF receive good media coverage associated with the field day.
- During the year NUGF and the Kamarooka project received many visitors. They included members of the Shepparton Irrigated Farm forestry group, members of the CRC for plant based solutions to dryland salinity, Rowan Reid and Master Tree Grower course participants, and NCCMA Implementation Committee members. Individual visitors included Dr Anna Ridley (DPI), Isla Grundy (DPI) and PhD student and social researcher, Sadie Gray.

### **IUFRO Conference, Brisbane**

In August 2005 Phil Dyson, Mal Brown and myself made a presentation to the International Union of Forestry Research Organisation (IUFRO) world congress held in Brisbane. This event was most successful and put NUGF on the world stage.

### **Farm forestry tours**

During the year we also completed a three-stage farm forestry familiarisation and skill development tour of plantations in Deniliquin, Heathcote and district, along with members of the Otway Agroforestry Network. This was made possible by funding received from the Victorian Forestry Council.

### **Website ([www.nufg.org.au](http://www.nufg.org.au))**

NUGF now has its own website featuring the Kamarooka Project. Special thanks to Phil Dyson for his continued assistance, often above and beyond the call of duty, for setting up and maintaining the website.

### **Portfolios**

During the year members were given portfolios based on their area of expertise or special interest. This has proved very successful and will continue to be developed.

Thank you to the NUGF members for making the last year another great success and for setting the group up for another eventful year in 2006/07.

**Ian Rankin**  
**President**



# Northern United Forestry Group

NUFG 1 July 2006

## 2006/07 SUBSCRIPTIONS NOW DUE

Tax Invoice ABN 85 841 577 349

**Please return this form with your payment to**

**Rob Comer  
NUFG Treasurer  
Drummartin via Raywood  
VIC 3570**

Name \_\_\_\_\_

Address 1 \_\_\_\_\_

Address 2 \_\_\_\_\_

Enclosed is a cheque/money order for \$\_\_\_\_\_ made out to Northern United Forestry Group for 2006/07 membership fees.

Membership type:

Single (\$27.50 per year)

Family (\$27.50 per year)

Single plus 'Agroforestry News' (\$37.50 per year)

Family plus 'Agroforestry News' (\$37.50 per year)

*Please tick whichever applies*

# Kamarooka Groundwater Report

## Phil Dyson

June 2006

### Background changes in groundwater elevation in the Kamarooka catchment

Over the past 8 months we have learnt a great deal more about the Kamarooka groundwater system and the way that it functions to cause salinity. The period has been particularly instructive because it has revealed the impact of more than tens years of altered rainfall regimes on the salinity-groundwater issue.

The post 1995/96 rainfall-pattern has been very different from that of 1980s and early 1990s. Over the last ten years we have not only seen a reduction in annual rainfall, but a shift in distribution from winter dominance to enhanced spring and early summer precipitation.

The winter dominant higher rainfall regimes of the 1980s saw groundwater within the upper Kamarooka catchment rising. The peak occurred in about 1994 when levels in the upper slopes reached approximately 117 metres above sea level. At this elevation they were about 6 metres above the saline groundwater discharge zone further down the catchment at the lower break in slope. This six-metre head differential above the saline discharge area drove the salinity issue. It provided the hydraulic pressure needed to for groundwater flow through small fractures in the underlying rock down to the saline land below.

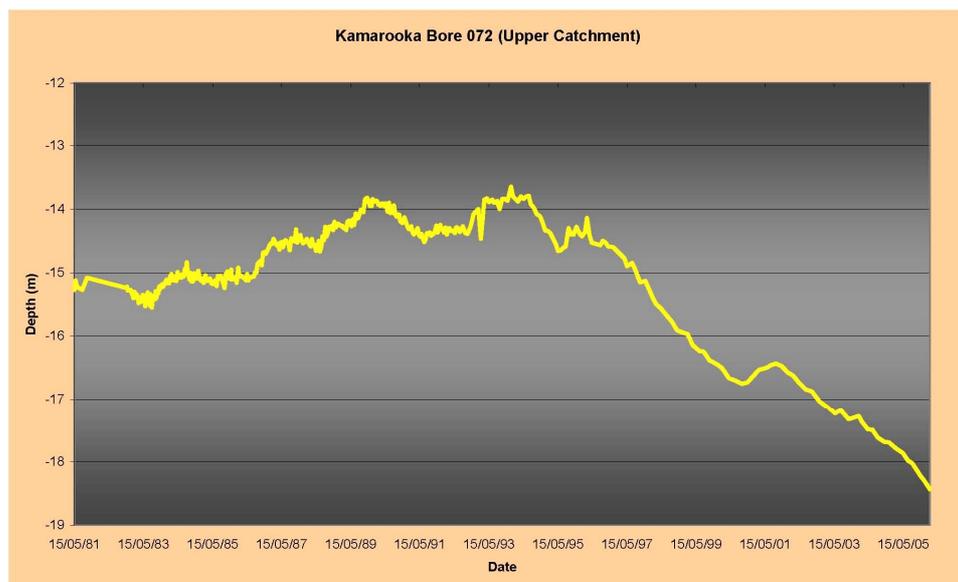


Figure 1 – Decline in groundwater elevation in bore 72 (Hogs Road west of the Kamarooka Hall)

The post 1995/96-climate has not been conducive to groundwater recharge. There has either insufficient rainfall to saturate the soil and allow rainfall to leak to the groundwater below, or the rainfall has fallen at a time when evaporation/transpiration have been high and (again) there has not been sufficient water left over to allow seepage beyond the root zone of plants.

A decade without appreciable groundwater recharge has occurred has afforded the opportunity for groundwater to drain from the slopes and crests of the catchment. Drainage away from the upper catchment has seen groundwater levels fall on the slopes and crests (figure 1). At bore 72, for example, some 300 metres west of the Kamarooka Hall on Hogs Road, levels have fallen about 116.5 metres above sea level (masl) to about 111.5 masl since 1995/96. This dramatic fall in the upper catchment has almost eliminated the hydraulic gradient required for groundwater move from the upper catchment down to the land below. Much of the saline land occurs at an elevation of about 111 masl.

The dynamics of the catchment-groundwater system substantially altered with the onset of the post mid 90s climate change. The processes both causing and maintaining salinity were disrupted. Groundwater is now receding as it moves toward a new equilibrium that represents the new climatic regime.

### Localised recharge on the saline land

We understand that the saline land at Kamarooka arises from the lateral down-slope flow of groundwater from the upper catchment. Our measurements to date, however, demonstrate that this is not the only hydrologic process active in the salinity at Kamarooka.

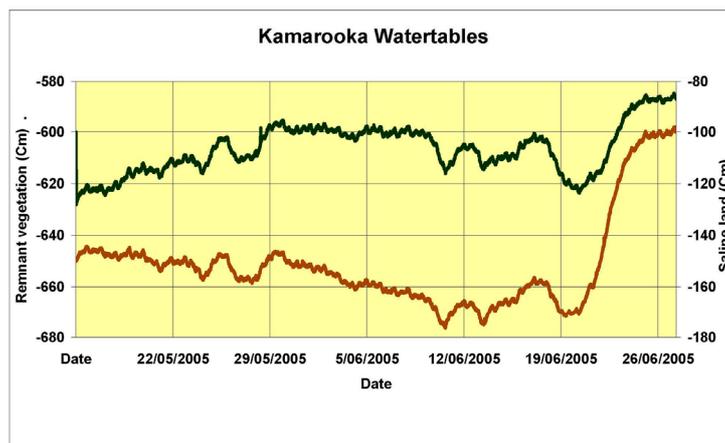


Figure 2 Rapid changes in watertable elevation following rainfall

During 2005 one of our data loggers from a bore in the saline land recorded a rapid response to a relatively modest rainfall event that came after a protracted period of low rainfall (figure2). The watertable response occurred within hours of the event and caused us to think again about the processes. It

was tempting to believe we were witnessing a recharge event in the upper catchment with a consequent immediate increase in groundwater pressure within the saline discharge zone. Astute questioning from some members of the NUFG, however, led to a more detailed assessment, and it soon became evident that the response could indeed be explained by very localised recharge occurring within the saline land.

At first there was some hesitancy in proposing the localised recharge model because it was difficult to imagine how dispersion of saline soils impacted by rainfall at the land surface would allow sufficient rainfall water entry into the soil. It now appears most likely that the process was supported by a large accumulation of salt within surface soils. The mass of salt most likely prevented dispersion allowing deep infiltration and drainage to the watertable.

Similar observations elsewhere (pers. comm. Mark Reid of DPI) reveal the same phenomena has recently been recorded within saline land in the Upper Bet Bet catchment above Lexton in Central Victoria.

The understanding of these dual processes arising from the Kamarooka work is significant both in both a scientific sense, and a management sense. It reinforces the need for a holistic approach that involves both upper catchment management and management of vegetation on saline land.

### **The impact of vegetation on salinity at Kamarooka**

The Kamarooka project, in the first instance, was always about establishing perennial vegetation on saline land. The main challenge was to re-vegetate saline lands and adjacent areas with productive vegetation that would survive and flourish in saline soils with shallow watertables.

There was never an expectation that the newly established vegetation would immediately lower watertables and cause the salinity problem that has been present for some fifty years go away. There was, however, a valuable opportunity to set up monitoring systems and protocols that would allow us to learn from our experiences in ways that would not simply benefit the NUFG but others throughout eastern Australia struggling with similar salinity issues.

The challenge has been to establish an efficient monitoring regime capable of reporting on the effectiveness of the treatments, and to do this in ways that are both scientifically credible yet relatively inexpensive. Constrained by these guidelines we opted to monitor the groundwater responses to the treatments imposed. The implicit questions asked in this process were: Can we detect changes in watertables that we can attribute to vegetation-groundwater interactions? Can we maintain healthy growing vegetation in areas where high salinity shallow groundwaters are sustained?

During implementation of the groundwater-monitoring program we expanded our objectives in an attempt to understand how and why ancient native vegetation survived under the extremes of salinity. To our great surprise we discovered the old trees were not only surviving but in at least one instance dramatically suppressing the watertable.

The question of the extent to which our treatments at Kamarooka influence the watertable is still open. Our monitoring efforts, by chance, coincided with a change in climate that ultimately produced the most substantive change in

landscape-groundwater interactions in the last fifty years. This change in the baseline or background conditions masks the changes that we might otherwise hoped to see resulting from our management systems. At this stage we are not able to accurately separate climatically drive effects from those that we might expect from the treatments. Equally, the vegetative treatments remain relatively immature in terms of their water use, and there is a need to sustain our monitoring efforts whilst they continue to develop.

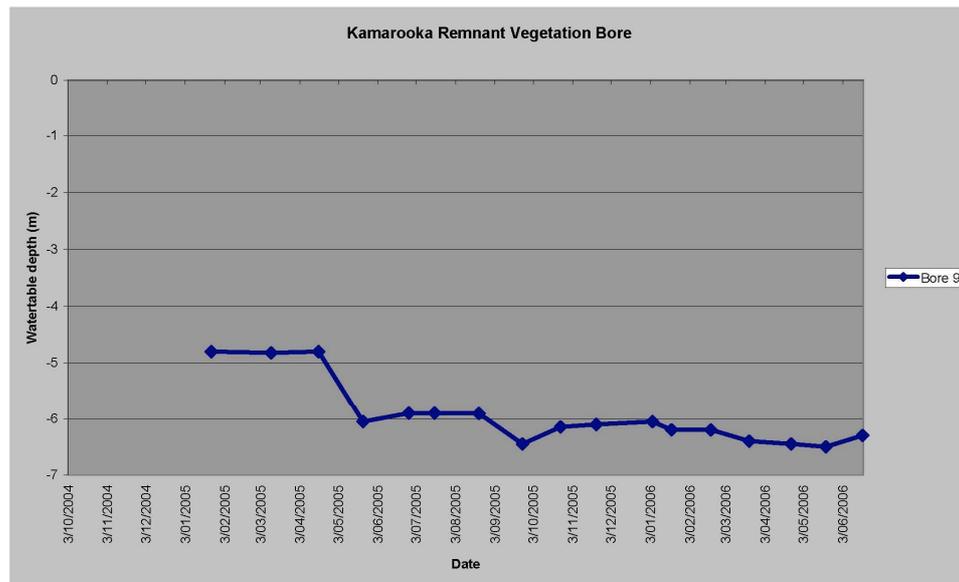


Figure 3 Watertable under remnant vegetation

Perhaps one of the most exciting things arising from our monitoring program is that we are breaking new ground. The climate-vegetation-landscape-groundwater systems are too complex for effective computer modelling. In this instance will learn far more from simply continuing to measure and observe. Will our trees ultimately lower the watertable to the point where it is obvious that they are making a difference? How long might this take? Will the saltbush make a difference to watertables, and how long might this take? Will the groundwater system bounce back with any return to wetter conditions? How fast might this occur? These are interesting questions that have great relevance well beyond Kamarooka.

Phil Dyson

Attachments:

Results from the June Watertable monitoring.

Kamarooka Watertables (Manual Measurement)

