

AUDITING 10 YEARS OF LANDCARE IN THE WOODY YALOOK CATCHMENT – HOW ARE WE PROGRESSING ALONG THE TRIPLE BOTTOM LINE?

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Summary

In 2001 the Woody Yaloak Catchment Group, south west of Ballarat in Victoria, conducted a 10-year audit to determine the social, environmental and economic change since 1990. During this decade nearly \$2.4 million of landholders money and a further \$1.4 million from partners had been invested in the catchment.

The audit results highlight areas of success and future opportunities. These include:

- Farm profitability from 10% *below* the regional average to almost 20% *above* the average.
- The area under trees increasing from 0.8% of the private land to 2.4%.
- Active involvement of the community, with 65% of landholders participating in projects in any one year,
- Landholders involved in cross farm boundary planning and action has increased from 15 % to 60 %.
- An average expenditure of \$3,300 per landholder on Landcare in the future, excluding grants).
- A poor amount of investment in Bushcare and native fauna protection compared to other natural resource management activities.

The *impact* of the on ground works are showing, with 40 per cent of those involved with erosion work identifying improved water quality (clearer water) and a similar number of those involved in tree planting recognising an increase in bird life.

Introduction

The Woody Yaloak Catchment Project commenced in March 1993. After nearly a decade of activity and an investment of nearly \$2.4 million by landholders and a further contribution of \$1.4 million by our partners, the question needs to be asked; *what is the impact of all this work?*

DPM Computing were engaged by the Woody Yaloak Catchment Project to undertake a 'snapshot' survey of landholders in the catchment with the aim of auditing the social, environmental and economic change since 1990. Surveys were undertaken in September and October 2001 by personal interviews with 20 landholders within the catchment area (nine per cent of the full time and part time farmers in the catchment). Selection of interviewees was on a random basis from the Woody Yaloak newsletter mailing list with a 'filter' to include landholders from the three major soil types in the catchment (Basalt plains, granite hills and sedimentary hills). The questions were designed for 'self assessment', although most numeric responses were supported by records held by the landowners (Oddie, 2001).

Given the small survey sample, consideration should be given to the **trends** rather than the exact numbers.

The Desired Outcomes of the Woody Yaloak Catchment Project

The original outcome of the Woody Yaloak catchment project was to *halt the increase in salt and silt discharging from the Woody Yaloak River at Cressy* (Woody Yaloak Catchment Group, 1993). This was to be achieved by accelerating the adoption of 'on-farm' landcare solutions in the catchment. The first five year plan was reviewed in 1998 (Standen, 1999) and new outcomes identified, to better reflect a more holistic view of catchment management. The new outcomes were to achieve:

- Viable businesses,
- A strong community capable of managing change,
- A natural environment that nurtured business viability and works within the capacity of the catchment,
- Protection of remaining natural flora and fauna.

Responses from the survey are discussed in relation to these four outcomes

Viable Businesses

Agriculture is the dominant business in the Woody Yaloak Catchment. In 1990 the gross income was approximately \$160,000 per business or \$275/ha. In 2001 this had risen to approximately \$220,000 per business or \$335/ha. Survey participants mainly attributed the increase in gross income to increasing commodity prices, but also to increased property size (from an average of 581 ha in 1990 to 646 ha in 2000) and improved productivity of the enterprises.

The trend of increasing farm size is widely recognised in the broadacre farming as is the influence commodity prices have on gross income. However the significant insight from these findings is the *rate* of increase in productivity in the Woody Yaloak catchment.

In 1990 the gross income per hectare of farms in the Woody Yaloak Catchment were calculated to be almost 20 per cent below the Victorian Monitor Farm Project (VMFP)¹. In 1999/2000, the gross income of Woody Yaloak farmers was estimated to be almost 10 per cent higher than the corresponding Monitor Farm results. Although the data used in the analysis is not as detailed as VMFP, there are several key indicators that provide evidence to support the significant pasture and crop productivity increases. These include:

- An increase in average fertiliser used on pastures from 72 kg/ha in 1990 to 109 kg/ha in 2000 (51 per cent increase).
- Expenditure on pasture fencing increased, with half those surveyed intending to spend money on fencing for pasture improvement in 2000/2001, at an average length of 1.2 km.
- A 33 per cent increase in the amount of perennial pastures on the average property.
- The use of better management practices and technologies (minimum tillage, soil testing).

The Woody Yaloak Catchment Project can take some credit for this accelerated lift in productivity. Considerable resources have been invested by the project in improving the productive base of pastures, either through new perennial pastures or the improvement of

¹ The Victorian Monitor Farm Project commenced in 1970 and is conducted annually by the Department of Natural Resources and Environment. The project provides the financial analysis of 49 farms across South West Victoria and monitors trends in farm productivity and profitability and the results are a highly appropriate to compare with Woody Yaloak data.

existing pastures. Support has been through one to one technical advice, information sessions, farm walks, training programs such as the Wesfarmers *Better Pastures* course and Prograze. Most importantly more than 300 'trials' have been established on farmers properties to allow individuals to build confidence with adopting new techniques, trialing the latest species and examining different management options.

Further indicators to support the improved viability of the businesses in the catchment include:

- Equity either increased or remained steady over the decade meaning the value of the asset has not been undermined.
- Landholders had the capacity to match \$1.4 million of incentives for on ground works with \$2.4 million in cash and in kind support, generated from their businesses.
- Fifty five percent of those surveyed have a business plan, which is more than double the number in 1990.
- External advice, in one form or another, is now routinely sought by more than two thirds of landholders.

Overall the trends in business viability are positive, which augers well for ongoing capacity of landholders to continue involvement and investment in natural resource management issues.

A Strong Community Capable of Managing Change

The Woody Yaloak catchment group believes active participation in local organisations and groups is a key indicator of community capability. Annual participation in the Woody Yaloak Catchment Project, defined as those receiving financial assistance in that year, has averaged about 65 per cent since the mid 1990's. This is a significant increase from before the Catchment Project commenced (when activities were supported through individual landcare groups).

Of the 20 people surveyed, 19 had been involved at some stage in the Woody Yaloak Catchment Project and all those involved had received some financial support for various projects. This is higher than the average annual participation rate but simply illustrates the transient nature of ongoing involvement. An active participation rate of two thirds of all the landowners in the catchment during any one year is a significant achievement and provides a strong vehicle for future initiatives.

The survey illustrates the community 'obligation' engendered by this project. Twenty one per cent of landholders have held positions on the executive committee² since 1993, a third have been on sub committees (eg rabbits, weeds, pastures, trees etc) and 16 per cent have hosted tours, field days and farm walks.

However it must be recognised the Woody Yaloak Catchment Group is only one of a multitude of environmental and productivity based groups in which individuals are involved (excluding other volunteer groups such as the Country Fire Authority, sporting clubs, hall committees etc). Those surveyed identified many additional groups and organisations they participate in, including Greening Australia, Grasslands Society, Trust for Nature, Sustainable Grazing Systems, Bird Observers Club and the Soil Conservation Foundation (just to list a few).

² The Woody Yaloak Executive Committee consists of two representatives of the Werneth, Misery Moonlight, Rokewood and Pittong-Hoyles Creek landcare groups and one member from the Dales, Haddon and Grenville groups.

These results are positive but also may be a cause for concern. It is clear participation is high and community spirit strong in the Woody Yaloak Catchment. Yet these results come at a time when the number of people involved on the land is diminishing. Survey results show a nine per cent decline over the past decade in the average number of people involved in farming (from 2.67 to 2.45 people). This means the 'pool' of people who can participate in volunteer activities is reducing. We must be very conscious of not over burdening those in our community and look for ways of developing partnerships with other like-minded groups.

Three other key indicators would suggest an increasing capacity of the Woody Yaloak farming community to manage change. The first is the number of landholders involved in cross boundary planning and action. In 1990 only 15 per cent indicated that neighbours were important in deciding what landcare works to undertake. By 2000 this had risen to 60 per cent and importantly 90 per cent believed they could work with their neighbours to develop subcatchment landcare plans. Part of this increase must be attributed to the emphasis the Woody Yaloak Catchment Project has placed on encouraging neighbourhood group planning and implementation.

The second indicator is the emerging culture that all landcare works are essentially trials and other landholders can learn from each individual activities. In 2000 more than half those surveyed indicated they were involved in some research and development type activity, including pasture trials, weed control experiments, alternative fencing techniques and direct tree seeding.

The third and possibly most important indicator is the ability to articulate their vision for the future. The visions described by those surveyed highlights the need to be economically sustainable but recognising this must be achieved in the context of a stable natural environment. A few examples illustrate this conclusion, when asked: 'What is important to you and your family in this landscape?'

- *Productive pastures, more trees fenced off, treed creeklines and wetlands.*
- *Biodiversity and landcare helping to increase productivity and profitability*
- *Maintaining a viable and productive farm while sustaining and improving the environment.*
- *Increase in profitable pastures, effective shelter belts, less foxes & rabbits*

Clearly the capacity of the landholders in the Woody Yaloak community to become involved, consider issues beyond the boundary fence and to share knowledge, experiences and information has increased during the past decade.

A Natural Environment That Nurtures Business Viability And Works within the Capacity of the Catchment

In 1993, improving the natural environment was recognised as a means of providing a sustainable resource based on which to operate the farming business. Although a comprehensive appreciation of all the natural resource management issues did not exist at the start of the project, many issues were identified as impacting on the resource base in the catchment.

In 1990 rabbits and foxes (55%), a lack of trees (50%), unproductive pastures (38%) and soil erosion (25%) were the four main landcare issues identified by farmers. Understandably the initial phase of the Woody Yaloak Catchment Project focussed on these four areas. Considerable activity was undertaken and progress made during the decade on these issues. This included:

- The area of the catchment under trees increasing from 0.8 per cent of the private land to 2.4 per cent. This includes native trees and trees for commercial purposes eg pine (5%) and bluegums (52%)
- An average of 97 hectares of perennial pasture resown on each farm.
- A significant reduction in the rabbit population,
- The treatment of more than 60 ha of erosion through earthworks and the fencing of areas to exclude livestock.

This progress is recognised by the landholders in the catchment. Survey participants were asked to rate their landcare progress (tree planting, vermin, weed and erosion control and pasture improvement), over the past decade. In 1990 55 per cent said they had made no progress or very poor progress in landcare. By 2000 the no or poor progress response reduced to only five per cent.

More significantly landholders are beginning to report the *impact* of those changes, with 40 per cent of those involved with erosion work identifying improved water quality (clearer water) as an outcome, and a similar number of those involved in tree planting recognising an increase in bird life. The reduction in rabbit numbers was likely to have had an impact on the erosion and productivity outcomes.

Yet even after a decade of activity, the *importance* landholders place on establishing more trees, minimising the impact of rabbits and continually improving the pasture base has actually increased (although the need to stabilise erosion has diminished, probably because many areas have been treated). During the same period new issues have emerged, with greater recognition of the need to treat weeds, salinity and enhance waterways. This would indicate landholders in the catchment have developed a capacity to embrace a multitude of natural resource management issues simultaneously.

Since the early 1990's, there has been a steady evolution of other programs that deal with specific components of natural resource management, in areas such as biodiversity (Bushcare), waterway enhancement (Rivercare) and native fauna protection. Until recently the Woody Yaloak Catchment Group placed limited emphasis on these areas. In 1997 Woody Yaloak commenced a waterway improvement program through support from the Corangamite Catchment Management Authority. The first recognition of the impact of this additional program is beginning to show, with a significant increase in the number of farmers reporting good or very good progress in Rivercare since 1990. No specific program has been initiated by the Catchment Group in Bushcare and fauna protection so it is not surprising the degree of progress has been smaller than the areas Woody Yaloak has encouraged (table 1).

Table 1: Landholders reporting progress in Landcare, Bushcare, Rivercare and native animal protection (1990 and 2000)

	No progress or very poor progress (1990) (%)	No progress or very poor progress (2000) (%)	Good or very good progress (1990) (%)	Good or very good progress (2000) (%)
Landcare	55	5	45	95
Rivercare	75	45	25	55
Native animals	85	75	15	25
Bushcare	100	95	0	5

Progress appears related to financial investment. Survey participants were asked to indicate their likely level of expenditure on Landcare, Rivercare, native animals and Bushcare in 2001 (excluding any monies received in grants). The indicative figures show:

- Landcare \$2573/farm/year
- Rivercare \$718/farm/year
- Bushcare \$20/farm/year
- Native animals NIL

These results would suggest a link between the initiatives undertaken by the Woody Yaloak Catchment Group, the influence on activity and subsequently the impact of that activity. This is clearly evidenced by the level of non-grant investment in natural resource management activities.

Protection of Remaining Natural Flora and Fauna.

The protection and enhancement of the native flora and fauna has not been a focus of attention over the past decade from the Woody Yaloak Catchment Project and the level of action appears to mirror the degree of investment. For example the annual investment in fencing has increased by 60 per cent since 1990 although the vast majority of this fencing has been associated with pastures (53%) or new tree plantation fencing (27%). The remainder has been spent of waterway protection (20%) which is likely to have some native flora benefit although the primary purpose of the fencing is mainly to prevent livestock access to the waterway.

This is clearly an area that requires more attention in the future.

Conclusions

The audit allows three conclusions to be made about the Woody Yaloak Catchment Project.

1. Three of the four objectives for the project set by the community are being met. These relate to enhancing business viability, building the capacity of the community to manage change and creating businesses that nature the environment whilst operating within the limits of the natural resources in the catchment. More emphasis needs to be placed on protecting and enhancing the existing flora and fauna in the catchment.
2. Catchment wide changes to natural resource management takes time. After 10 years, a high participation rate and a lot of projects, there is finally some evidence of the impact of a decade of activities, with higher productivity, localised examples of improved water quality and the increase in bird life. Yet the quantity of works undertaken since 1990 are only the beginning. There is still a lot more to do and several more decades of investment will be required before we reach a truly sustainable footing.
3. The Woody Yaloak Catchment Group is capable of supporting the local community make landscape change. The structures and programs that currently exist have been created to meet landholder needs. Above all it highlights the value of a 'bottom up' approach. Ongoing participation, community capacity building and the implementation of activities that have a positive impact on the environment and businesses viability is clearly evident in this project *and will be needed in the future* if sustainable development is to be achieved. The temptation of authorities and other agencies to impose new initiatives must be carefully managed and done in partnership with the catchment group, otherwise the ownership and goodwill that underpins the current project could be lost.

References

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