

YASS AREA NETWORK OF LANDCARE GROUPS



YASS AREA CATCHMENT ACTION PLAN

October 2002

Natural Resource Planning Advisor Steering Committee:

Sylvia Gleeson, Ray Malam, John Franklin, Trent Brassil, Richard Webb.

Yass Area Network of Landcare Groups Management Committee:

John Betts, Peter Dawes, Graham Robertson, John Franklin, Sylvia Gleeson, Trent Brassil, Geoff McFarlane, Bruce Bray, Ray Malam, John Sutton, Robert Gorman, David Young.

Author: *Jacquie White*

Natural Resource Planning Advisor

Edited and finalised: *Nicole Cosgrove*

Yass Valley Way

PO Box 23

Yass NSW 2582

Ph. (02) 6226 1433

Fax. (02) 6226 2642

**This project has been supported by
the Natural Heritage Trust.**



1. FOREWORD

We have been told that within the next 50 years, remnant vegetation affected by dryland salinity could increase twelve-fold (NLWRA 2001). This scenario would be disastrous for a catchment such as ours, already suffering the impact of salinity. However, it highlights the need for this, our first locally developed and owned catchment plan, to focus our actions on local needs.

The Yass Area Network of Landcare Groups provide a forum for landcare groups, state and local governments, and community organisations to work together to address natural resource issues in the Yass area. In 1997 funding from the National Landcare Program allowed work to begin on our catchment plan. As chairman of the Yass Area Network of Landcare Groups, I am now pleased to present this plan.

The plan will assist all land managers with an interest in natural resource management to identify, quantify and prioritise the issues in this part of the Murrumbidgee catchment. It will also provide a sound basis to justify and plan future investment in specific on-ground actions. While we recognise that work needs to continue to refine our data and to collect additional information, we are proud to lay the foundations.

Most of the actions in this plan are locally focussed, but will contribute to regional and national outcomes. We are proud that our local actions will support national change, and I would like to acknowledge individual and group efforts to this end.

I would like to emphasise that this is not a regulatory document, and is not intended to set out compulsory obligations. On the contrary, its strength lies in its voluntary nature and its development through extensive consultations with landholders.

I would like to thank Jacquie White and Annabel Kater who have each held the position of the Natural Resource Planning Advisor during the life of this project. This plan is the result of their many hours of data collection, surveys, community consultation and research. Through their hard work, persistence and initiative they have made a significant contribution to the future sustainability of this catchment.

I would also like to acknowledge the efforts of the Steering Committee in ensuring the plan was completed to a high standard in the absence of a dedicated catchment planner for the last several months, and to Nicole Cosgrove who finalised the plan after Jacquie's departure.

This catchment plan is the product of a cooperative effort from all partners and illustrates our strong tradition of stewardship in this region. It demonstrates the commitment of those living and working in the Yass area to identifying and addressing the most pressing natural resource issues. We thank our funding partners; the Commonwealth Government's Natural Heritage Trust, and the New South Wales Government. We look forward to continuing our work with them in the Yass area catchment.

John Betts
Chairman
Yass Area Network of Landcare Groups

2. ACKNOWLEDGEMENTS

The Yass Area Network of Landcare Groups would like to thank the following for their assistance in the development of the Yass Area Catchment Action Plan.

Yass Area Network of Landcare Groups:

Bookham/Burrinjuck, Geary's Gap/Wamboin, Goodhope/Boambolo, Gundaroo, Manton, Murrumbateman, Narrangullen, Sutton, Taylor's Creek, Yass Urban, Binalong, Jerrawa Creek, Collector, Hall, Bungendore

Department of Land & Water Conservation, Yass:

John Franklin, Brad Parker, John Scown, David Cosgrove, Lyn Polsen

Landcare Coordinator:

Katie Hollingsworth

Department of Agriculture, Yass:

Fiona Leech

Yass Shire Council:

Mark Grayson, Ben Ponton, Steve Finch

Upper Murrumbidgee Catchment Coordinating Committee:

Val Wiseman

National Parks & Wildlife, Queanbeyan:

Rainer Rehwinkel, Paul Packard

Greening Australia:

Sue Streatfield

Salt Action, Cowra:

Andrew Wooldridge, Nik Henry

Also: Annabel Kater, Alex Sticpewich, Libby Elliot, Sarah Shelley, Emma Williams, Peter Regan, Stewart Jeffress.

Members of the Yass catchment community: In particular, thanks to those who participated in catchment surveys, workshops and planning meetings – Gundaroo Primary School, Sutton Primary School and Green Corps.

Consultant and adviser:

Nicole Cosgrove

Funding from the following organisations is gratefully acknowledged in contributing to the development of the Yass Area Catchment Plan:

- *Natural Heritage Trust*
- *Yass Area Network of Landcare Groups*
- *Department of Land & Water Conservation*

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3. EXECUTIVE SUMMARY

Since the success of the first landcare projects, governments across Australia have continued to demonstrate their commitment to programs to address natural resource management issues in partnership with local communities. Emphasis has been placed on community action, on-ground works and developing practical solutions at a local level. While governments have provided national and regional frameworks, a large responsibility has rested with communities to implement these policies.

This plan is the initiative of the Yass Area Network of Landcare Groups in recognition of the community's role in developing a **strategic approach to addressing the land degradation and environmental issues in the Yass area**. It is a guide to provide direction for individual and community action. We have deliberately chosen not to allocate specific responsibilities to agencies or groups in this plan, as we want this document to encourage stakeholders to work together in a flexible and cooperative manner.

Work on this plan began in 1997. In the meantime the broader scale Murrumbidgee Catchment Action Plan (1998) and Blueprint (2001) have also been developed with input from community consultations in the Yass catchment. The actions proposed in this plan are consistent with the targets and activities identified in the Murrumbidgee Catchment Blueprint and will contribute to meeting overall Murrumbidgee Catchment targets. However, it also stands alone as a **community-owned plan that identifies local issues and proposes local actions**.

It reflects a significant change in attitude towards natural resource management in the local area over the last ten years, and the popularity of landcare in this region.

In preparing this plan we have aimed to create a document that contains relevant information in a way that is easy to find and read. The plan consists of two parts. The first describes

and quantifies the most serious natural resource issues as defined by the community and suggests actions to address them. Maps of the priority catchment issues are included. The second part, the Appendix, contains the supporting information and more technical data.

Much of the data that forms the basis of this plan was collected by individual land holders, DLWC and the Natural Resource Planning Advisor.

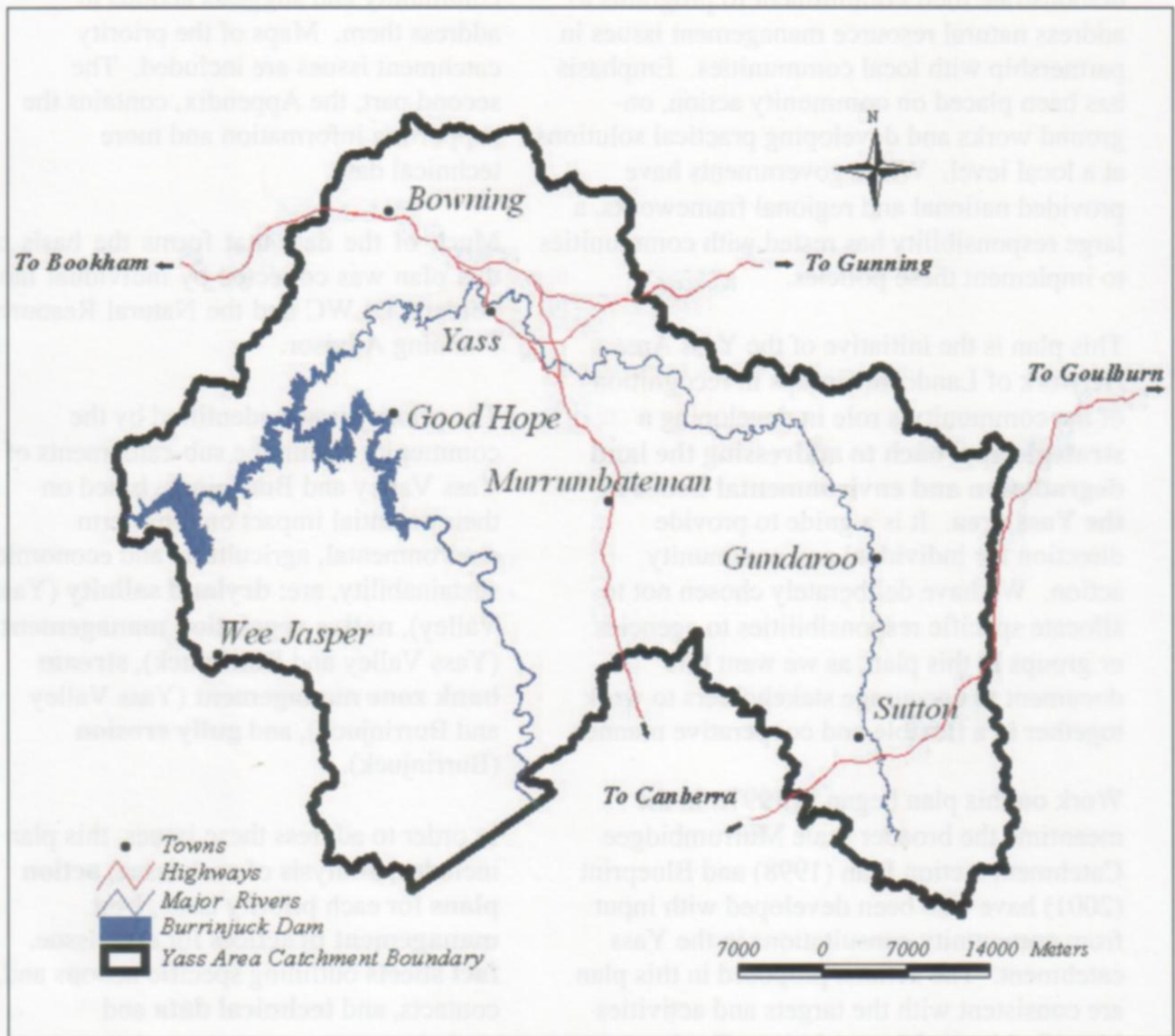
The priority issues identified by the community within the sub-catchments of Yass Valley and Burrinjuck, based on their potential impact on long-term environmental, agricultural and economic sustainability, are: **dryland salinity** (Yass Valley), **native vegetation management** (Yass Valley and Burrinjuck), **stream bank zone management** (Yass Valley and Burrinjuck), and **gully erosion** (Burrinjuck).

In order to address these issues, this plan includes; **analysis** of each issue, **action plans** for each priority issue, **best management practices** for each issue, **fact sheets** outlining specific actions and contacts, and **technical data** and statistics.

The Appendix contains technical data collated from landcare groups and government agencies. It is a comprehensive collection of base line data describing the natural resources in the catchment.

The plan will assist local groups to design projects that address the Yass catchment priorities as well as ensure they also contribute to overall Murrumbidgee Catchment objectives.

Map 1: THE YASS AREA CATCHMENT



4. THE YASS AREA NETWORK OF LANDCARE GROUPS

Our Landcare Network

The Yass Area Network of Landcare Groups was formed in 1996, in response to the need for an integrated approach to address land management and natural resource issues across the Yass area. The network incorporates 15 Landcare groups with an estimated membership of 450 landholders. Since 1996-97, 69 new and continuing projects have been undertaken by the groups drawing on over \$1.8 million of government contributions and over \$2 million in community contributions. (See Appendix, section 1).

Why we need a Catchment Plan

The term 'catchment' usually refers to a hydrological drainage area with physical boundaries such as mountains or hills, containing a specific set of natural resources. The boundaries of the Yass Area Catchment Action Plan have been determined by not only physical considerations, but also social and economic (see Map 1). In this way, the boundaries make sense to those living, working and managing natural resources in this area.

Catchment plans are a way of ensuring that the natural resources within the

catchment are managed sustainably, consistent with the principles of ecologically sustainable development.

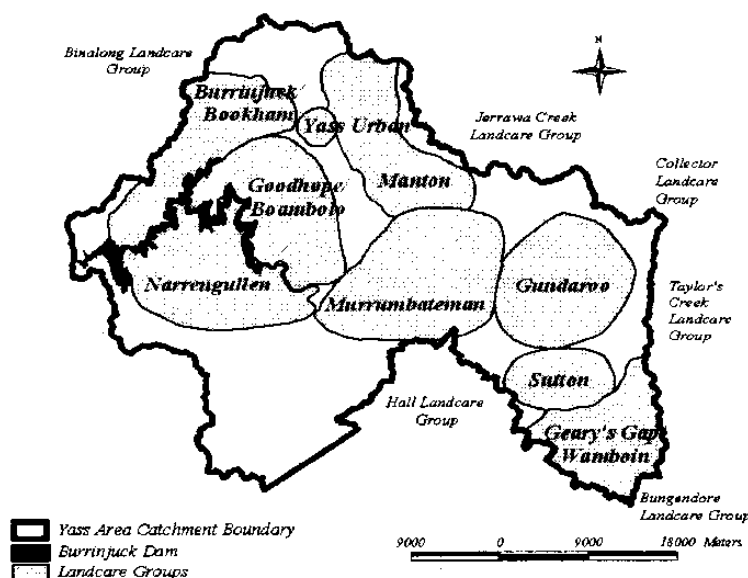
This plan identifies our catchment's high priority natural resource issues and suggests actions to address them. And while it takes account of other relevant plans and strategies on a larger scale, this document is largely community-owned and developed. (Appendix sections 2,3, 4).

Our Aims

The Yass Area Catchment Action Plan incorporates the actions and best management guidelines for natural resource management as developed by the Yass Area Network of Landcare Groups, individual landholders and community groups. The purpose of this plan is to:

- provide **current information** on the natural resources in the Yass catchment
- identify **priority issues** and areas
- suggest **actions** to address these problems, and
- promote **coordinated action** across government agencies, land managers and the community.

Figure 1: The Yass Area Network of Landcare Groups

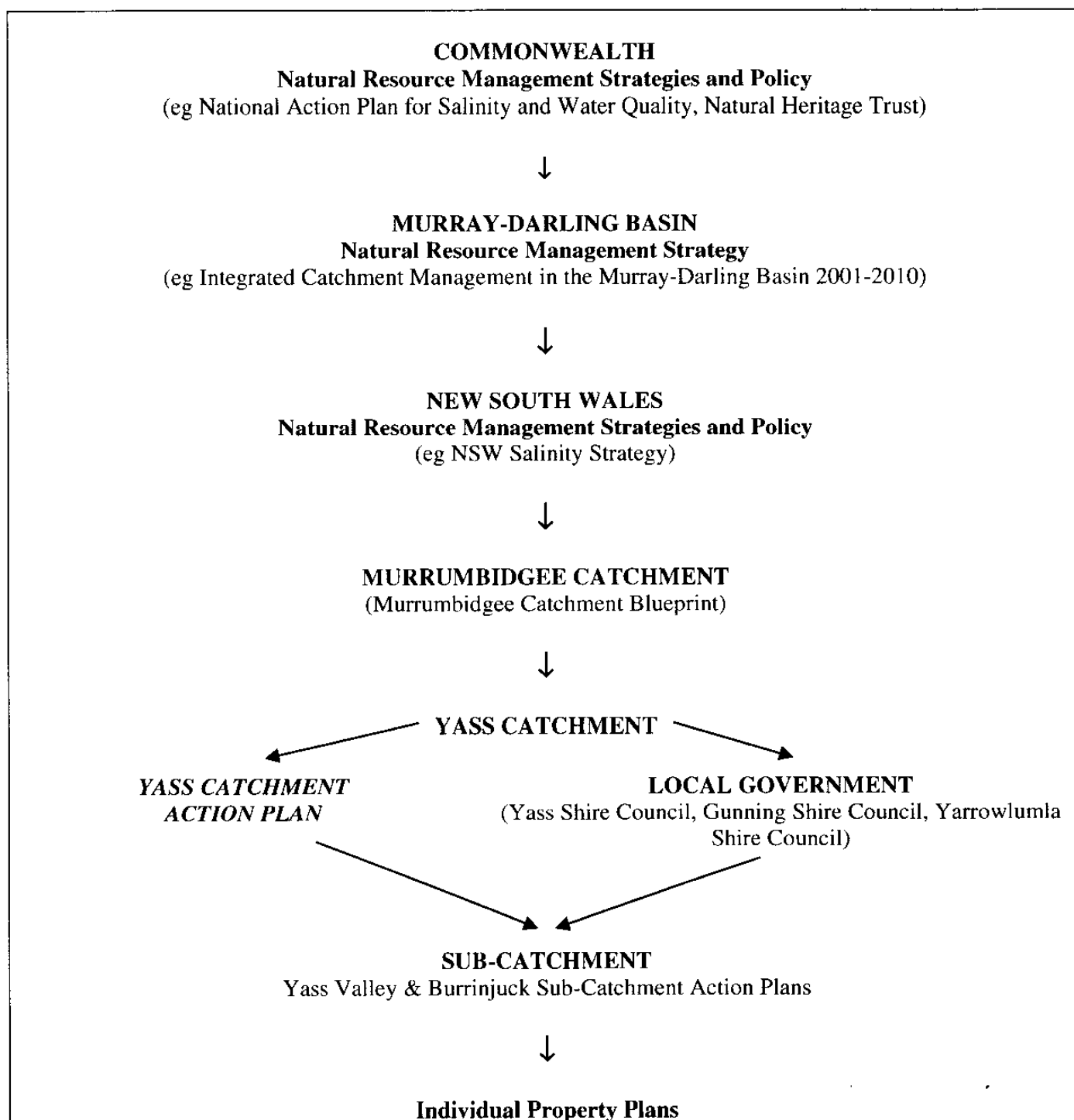


Our Partners

This plan stands alone as a community-owned document that fits under the larger scale Murrumbidgee Catchment Blueprint, the Murrumbidgee Catchment Action Plan, and state and federal policies relating to natural resource management.

The Yass area catchment represents 20% of the 1,406,000ha Upper Murrumbidgee Catchment. We share the Murrumbidgee Catchment Management Board's vision of *a healthy productive Murrumbidgee Catchment and its communities working together.*

Table 1: Context of Action Plan in National, State and Regional Policies



5. A SNAPSHOT OF OUR CATCHMENT

Our Catchment

Yass is located 283 km south-west of Sydney on the Hume Highway at the westernmost tip of the Southern Highlands of New South Wales. The Yass Area Network of Landcare Groups covers an area of 283,255 ha extending from Burrinjuck Dam in the west, to Lake George Range in the east, from the Mundoonen Range and Hume Highway north-east of Yass township extending south to the Brindabella Range at Wee Jasper and along the ACT border. The catchment includes the towns and villages of Yass, Bowning, Good Hope, Gundaroo, Sutton, Murrumbateman and Wee Jasper.

The word 'Yass' is believed to have originated from the Aboriginal term 'yhar', meaning 'running water'. The Ngunnawal people inhabited the area prior to European settlement in the 1820s.

Climate

The Yass region is described as 'temperate' with warm summers, cold winters and a relatively uniform rainfall throughout the year. Average annual rainfall is 650 mm, and average maximum daily temperatures are 12.5 degrees Celsius in winter and 28.7 degrees Celsius in summer. (*see also Appendix section 6.1*)

Landform

The Yass catchment is generally representative of a typical tablelands landscape with plateau areas of flat to undulating terrain such as Boorowa-Binalong and Yass Valley. There are areas of upland and hilly landscapes (Lake George Range) and an area of steep, rugged terrain to the south-west of the catchment at the Brindabella Range.

Vegetation

The native vegetation within the catchment has largely been cleared, with remnants existing mainly on steeper, rocky soil and along roads and railway lines. Within the Yass Shire, which makes up most of the catchment, the original native Yellow Box/Red Gum woodland is poorly conserved, and few remnants remain.

Natural temperate grasslands were also a characteristic of the Yass Plains, dominated by native species of perennial grasses. Pasture species included *Themeda australis*, *Stipa aristiglumis* and *Poa* species. The degree of disturbance of these grasslands, particularly through activities such as grazing, indicates it is unlikely that these natural temperate grasslands persist in any significant amount (NECS 2001).

The speargrass *Stipa* grassland community occurs as a frost pocket to the south of Yass, locally known as the treeless plains (NECS 1999).

The native vegetation in protected reserves, approximately 2% of current native vegetation, does not adequately represent the Yellow Box/Red Gum woodland and natural temperate grasslands which once covered extensive portions of the area (NECS 1999).

The Vegetation Management Plan coordinated by the Yass Shire Council on behalf of the YANLG has carried out an inventory and assessment of native vegetation in the Shire. The plan also identifies priority areas for revegetation and retention to maximise linkages to focus on these two main vegetation communities that have declined within the Shire. (*see also Appendix section 6.4*)

Land Use and Structural Change

Historically, the Yass area has been dominated by large agricultural and pastoral holdings, renowned for merino wool, sheep and cattle studs. However, over the last 15 to 20 years, the character of the district has undergone significant change. While large agricultural enterprises remain important economic contributors to the region, there has been a growing number of small and hobby farm enterprises, as well as rural residential sub-division, that has changed the economic and social make-up of the catchment and which has important implications for natural resource management.

There is now a significant number of people living in the Yass area, but working in the larger centre of Canberra. In addition, new industries such as olive

growing and viticulture have flourished, generating direct income from wine and grape sales, as well as attracting tourism.

Rural sub-divisions vary in concentration, in sizes of two, sixteen, forty and eighty hectares. Older subdivisions were carried out on existing portion boundaries resulting in fragmentation of agricultural areas, soil erosion, access difficulties, poor water management, bush fire hazard, detrimental visual impacts, fragmented management of vegetation and restricted ability for sustainable grazing management (MCAP 1998). It is estimated that if current trends continue, there could be 17,800 people living in rural areas of the ACT and Subregion by 2021, with 13,500 of these rural residential dwellers occupying around 40,000 hectares (MCAP 1998). (*see also Appendix section 6.7*)

Table 2 : YASS VALLEY CATCHMENT STATISTICS

Land Use	Area (ha)	Number Mapped	Percentage of Catchment
Cultivation area (continuous or rotational)	5126.89		3.22
Grassland 1 (includes native, volunteer, exotic, etc.)	115321.02		72.35
Grassland 2 (low to nil grazing)	6416.04		4.03
Horticulture: vineyards	147.56		0.09
other	49.87		0.03
Irrigated land (lucerne, pasture, crops, etc.)	445.54		0.28
Urban area (industrial, residential, etc.)	774.94		0.49
Modified land (not covered by other units)	630.73		0.40
Native tree cover			
+ understorey	13294.54		8.33
+ understorey + grazing	1206.66		0.76
no understorey	3113.88		1.95
no understorey + grazing	6576.15		4.13
+ tree regrowth	1929.15		1.21
+ tree regrowth + grazing	613.64		0.38
Softwood planting (e.g., pines and commercial)	740.82		0.46
Water storages / dams (dams < 5 ML)	771.00	6425	0.48
Water storages / dams (dams 5-10 ML)	82.90	300	0.05
Water storages / dams (dams > 10 ML)	364.13	425	0.23
Riparian zones native trees	42.20		0.03
native trees + grazing	235.58		0.15
exotic vegetation	17.06		0.01
exotic vegetation + grazing	464.23		0.29
grasses (native + exotic)	15.19		0.01
grasses + grazing	262.53		0.16
other, e.g., roads, urban	0.35		0.00
Stream channel (along main stream only)	445.44		0.28
Wetlands	311.08		0.20
Total	159,399.12		100.00

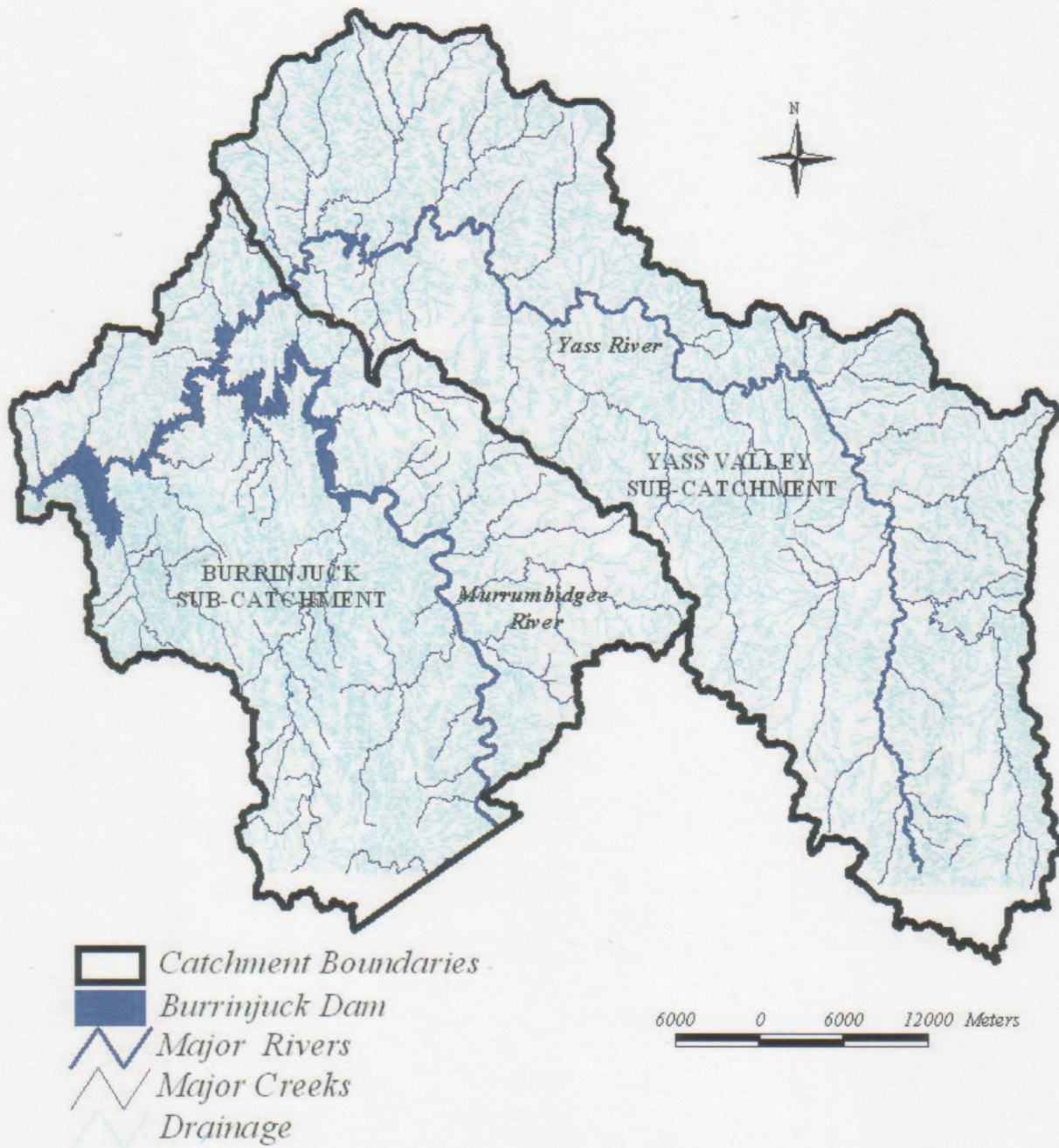
Yass Valley Land Use and Catchment Condition, DLWC, 2000

Drainage and Hydrology

The Yass Area Catchment incorporates the two major sub-catchments of:

- **Yass Valley** - flowing into the Yass River, and
- **Burrinjuck** - flowing into Burrinjuck storage and the Murrumbidgee River.

Map 2: Yass Valley & Burrinjuck Sub-catchments (Drainage)



6. ACTION PLANS

The Yass area catchment consists of two major sub-catchments; the **Yass Valley Sub-catchment** and the **Burrinjuck Sub-catchment**. Priority natural resource management issues have been identified for both sub-catchments and action plans for each priority issue have been developed through a process of community consultation. In addition, fact sheets outlining best management practices to address the priority issues are included as companion documents to the action plans. These will help groups to identify specific actions to address their local issues.

Many of the natural resource priorities identified by the landcare groups are inter-related. It is important to recognise these links in addressing them on a catchment scale and in applying best management practices.

NB: It is important to note that some actions may require advice and/or consent from local government or state agencies. YANLG advises individuals or groups to seek advice and approval as required.

Yass Valley Sub-catchment

The Yass Valley sub-catchment extends over 159,399 hectares encompassing six Landcare Groups: *Geary's Gap/Wamboin, Gundaroo, Manton, Murrumbateman, Sutton and Yass Urban*.

In the Yass Valley, grasslands (native and exotic) used for grazing represent over 72% of the sub-catchment (116,091 hectares). Just over three percent (5,127 hectares) is cropped. Vineyards occupy 148 hectares, and there are 446 hectares of

irrigated land. The remainder is made up of urban and modified areas.

The priority natural resource management issues identified in the Yass Valley Sub-catchment are:

1. ***Dryland Salinity***
2. ***Native Vegetation Management***
(*remnant management and vegetation enhancement*)
3. ***Stream Bank Zone Management***
(*riparian vegetation management*)

Additional issues identified include; stream bank condition, weed management, soil erosion, pest animal management, surface water flow, soil acidity (grazing management) and rural residential development.

Burrinjuck Sub-catchment

The Burrinjuck sub-catchment extends over 123,836 hectares encompassing three landcare groups; *Bookham/Burrinjuck, Goodhope/Boambolo and Narrangullen*.

The priority land degradation issues identified by the landcare groups were:

1. ***Native Vegetation Management***
(*remnant management and vegetation enhancement*)
2. ***Stream Bank Zone Management***
(*riparian vegetation management*)
3. ***Gully erosion***
(*soil, gully and stream bank*)