INTRODUCTION

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1.1 THE PROCESS

1.1.1 Why do a Catchment Management Plan?

A Catchment Management Plan can be of benefit to the whole local community - rural and urban. The Catchment Plan can be used to help improve profit and sustainability by addressing problems that cannot be solved independently (such as salinity), but need a coordinated approach by a group of landholders. It can help a community set a common direction, to prioritize works and funding, and to gain better access to government programs (e.g. Murray-Darling Basin 2001, National Heritage Trust) as well as improving links with technical resources.

A Catchment Management Plan is a process that provides a coordinated approach to dealing with problems and issues experienced within the catchment. The Plan is a dynamic document and should constantly be monitored, reviewed and modified.

1.1.2 The Process for Little River

The Little River Catchment Management Plan is being undertaken in three stages. This report draws together Stage I, which identifies the goals and issues to be addressed in the management plan, and collates information about the natural resources and their current condition. Gaps in information are noted with a view to recommending what further actions are required.

Stage II will prioritize the subcatchments so that programs and actions can be directed to the areas most in need and identify and cost the Best Management Options (BMOs) to address the problems in the catchment. A preliminary assessment of the support and incentives required to achieve implementation will be undertaken with the local people.

Stage III will prepare the draft catchment management plan and to determine the costs and benefits of implementing the plan. The Plan will provide both a strategic framework for natural resource management programs, as well as specific actions required to address the land degradation issues in the catchment. These are likely to include both on-ground works as well as incentives required to achieve adoption of BMOs and programs necessary for implementation. An investment strategy will seek support from all tiers of government, private sponsorship, as well as the local community. The cost sharing arrangements will provide for fairness and equity across the catchment and the wider Australian community.

The final stage is implementation of the Plan - the very reason for its development. However, there is no reason to halt works programs in areas that obviously need rehabilitation while the plan is in progress.

1.1.3 How Little River Landcare Group started

Dryland salinity in the Little River Catchment is thought to be on a scale that requires a coordinated group effort to address and manage the problem. Salinity in the Little River is a major contributor to the salt load of the Macquarie River, which has the potential to lead to significant social and economic impacts for the downstream water users and the Macquarie Marshes, as well as local farmers and village residents within the catchment.

Late in 1997, a group of concerned landholders called a public meeting to gauge the interest in developing a Catchment Management Plan. Alan Nicholson, Salinity Officer with DLWC, was instrumental in the initial development of the group. An umbrella Landcare organization - the Little River Landcare Group - was formed for the aim of addressing natural resource management problems in the catchment through an integrated management plan.

The group successfully applied for Natural Heritage Funds (NHT) funds. In November 1998, they called for tenders to develop a catchment plan for Little River and Donaldson Planning and Management Services from Tamworth were the successful consultants.

The Little River Landcare Group Inc. (LRLG) is the umbrella group for the fourteen smaller landcare groups within the catchment. The plan area has been subdivided into subcatchments, which include the following landcare groups:

Suntop/Arthurville:	Suntop, Arthurville and Merry Glen
Baldry:	Saddleback, Yahoo Peaks, Middle Arm, Obley and Hervey Range
Cumnock:	Myrangle, Burgoon and Eurimbla
Yeoval:	Upper Buckinbah, Yeoval and Yeoval Central.

The LRLG was formed initially with five office bearers. At the AGM in March 1999, it was agreed that two representatives from each subcatchment within the catchment would be appointed to the Executive to spread the workload and improve representation. This is known as the Steering Committee.

The Little River Steering Committee has determined that there should be some guiding principles for the development of this plan. The plan needs to:

- Ensure widespread community participation, including local government
- Consult regularly, including reporting to the committee and community
- Include all the community, not just Landcare groups
- Bring a focus to the work done in the central west slopes by DLWC and other agencies and universities
- Provide direction for the next 15 years
- Set priorities for action within the catchment
- Identify ways to provide support for implementation in critical areas
- Establish benchmarks and monitoring programs so progress can be evaluated
- Provide hard data to allow negotiations with government
- Develop an investment strategy to attract resources from private and public sectors in and out of the catchment
- Above all - the plan must achieve ***Fairness and Equity*** across the catchment.

A consultation strategy has been developed by the steering committee, as an aid to help market the plan to all stakeholders; from the local farmers and villagers to the Commonwealth and State governments, to corporate bodies who can offer sponsorship.

1.1.4 Vision and Objectives

The vision of the LRLG is:

'to promote a healthy, productive and diverse biological and social environment'.

A number of goals aimed at improving the health of the catchment were identified during a series of workshops run throughout the area. Once the extent of land degradation has been collated (this report), the LRLG will set objectives for these goals, with timeframes, roles and responsibilities for the implementation of each objective. These will appear in the Stage II report.

The goals that LRLG hope to achieve include:

Soils

- use land according to its capability
- promote healthy and productive soils with reduced acidity, improved fertility and soil structure
- reduce salinity
- minimize soil erosion

Vegetation

- develop sustainable farming systems
- promote highly productive pastures
- eradicate noxious weeds
- manage native animals and feral animals
- prevent further dieback
- promote strategic native vegetation planting and regeneration

Water

- improve the health of the riparian zone
- prevent decline in groundwater quality
- improve surface water quality

Social and Economic

- achieve a sound economic base
- promote a stable rural community
- ensure governments and the wider communities are better informed
- provide for better skilled and informed local communities

1.1.5 Issues

During the meetings, the local landholders also identified issues of concern in their area (see Appendix 7), and these are summarized below. The physical /environmental issues are discussed in depth in Part 3 of this report - the Situation Statement. Social and economic issues will be dealt with in greater detail in the Wellington - Dubbo Regional Plan, being developed concurrently. While most issues were common to the whole area, the subcatchments differed slightly in their priorities.

However, there was universal agreement about the difficult economic conditions and poor market opportunities being experienced in the rural economy. These lead to negative social impacts in terms of employment opportunities, loss of rural services and infrastructure, and subsequent population decline. Many landholders are concerned about how government policy is impacting on their ability to operate their farms.

The Yeoval subcatchment identified its main soil problems as salinity, soil acidification, erosion, and fertility decline. Water issues included the potential contamination of groundwater from septic tanks particularly in the village, river siltation and increasing numbers of carp in the river system. Native vegetation decline and weeds are a concern in this district, as is the increasing number of feral animals, particularly to the west.

Around Cumnock, the main soil problems are soil acidification, salinity and erosion. Declining groundwater and surface water quality concern landholders. Vegetation issues include native vegetation decline, pasture degradation and weeds. The unpredictable climate is also a worry to the landholders in the Cumnock area.

Landholders from Suntop / Arthurville, in the northern part of the catchment, were more focussed on water issues than in the upper reaches of the catchment. Water problems raised included lack of surface water for stock use, increasing carp numbers, over-allocation of water for irrigation and declining groundwater and surface water quality due to salinity. The main soil issues were salinity, erosion and fertility, with soil acidification less of a priority than to the south and west. Increasing numbers of weeds, particularly along the river, was a focus of concern, and feral animals were also raised as an issue.

To the west, the Baldry farmers nominated salinity, soil acidification and erosion as their main issues. Water issues centred on poor groundwater availability and quality. Loss of biodiversity, weeds and tree dieback were nominated as the vegetation problems. Other issues included feral animals and the difficult climate.

A number of people were looking for better access to education to improve their management skills, particularly in marketing, and the need to improve communication within the region to help restore the social fabric of rural life was identified.

The focus of the Management Plan will be on those priority issues that can be tackled locally. While global issues such as the weather and commodity prices can not be directly tackled by the landholders in the area, their impacts will be considered when formulating the actions required to solve the physical problems. Particular consideration will be given to how they affect people's ability to pay for the implementation, how change might impact on the social fabric of the district, and what mechanisms are required to counter any adverse effects.

1.2 LITTLE RIVER GEOGRAPHIC INFORMATION SYSTEM

1.2.1 Benefits of a Geographic Information System in Wellington

A Geographic Information System (GIS) is a way of storing and presenting information. It is a computer based mapping system that can collate and organise large amounts of information that is geographic located, such as land features, drainage lines and water quality monitoring data. Catchment managers, policy makers and other people interested in analysing and manipulating data can use it to assist them to assess the interrelationships of natural resource

features, to plan investments and management requirements. It can be used at a scale from property planning through to catchment monitoring and regional development.

A GIS stores information or data sets as a collection of thematic layers that can be linked together by geography. There is an opportunity to include urban data on the GIS to increase its value to local government as a planning tool. This facilitates information sharing and communication amongst the community, councils and government agencies.

A GIS provides the tools to allow land managers to:
- analyse causes of problems
- assess areas that are at risk
- take a wider perspective of the cumulative impacts of a problem over several farms or catchments
- provide a framework for implementing options to overcome problems
- plan solutions in cooperation to achieve the most cost-effective outcome.

1.2.2 GIS Implications for Farm Property and Catchment Planning

The GIS can be of assistance in preparing physical property plans, a crucial part of whole farm planning. A physical property plan helps ensure that a farm business is based on the capacity of the land, so production can be maintained in the long-term. The benefits of such a plan may grow over time, as monitoring data and other information is added to build a more complete and up to date picture of the physical and economic viability into the plan.

Some land management issues extend beyond the property boundary and need cooperation between neighbours to be effective. The GIS will help in identifying issues that require a broad catchment approach including:
- dryland salinity
- pest animal control
- weed infestation
- insufficient wildlife habitat
- diminishing stands of remnant vegetation
- streambank erosion.

These land and water degradation issues are best planned and managed through a catchment plan to develop a coordinated approach. Catchment problems require catchment solutions, and the GIS will assist in the identification of these issues. Since whole farm property plans impact on neighbouring properties, whole catchment plans are extremely important to coordinate information and actions. The GIS will allow awareness and analysis of wider land management issues, so new ideas can be implemented and action taken, on a coordinated basis. It also has the capacity to help identify the priority areas where action should occur.

1.2.3 The Little River GIS Project

The Little River GIS Project is located in Wellington DLWC office. It is the property of LRLG, and access to the data is limited to people in the catchment who have an interest in land management. Data is protected by security systems, so that landholders can feel confident that their interests are protected should they provide individual information into the GIS for property planning or monitoring purposes.

A major benefit of the GIS at Wellington is that it enables people of the area to visualise natural resource relationships (e.g. landuse, soils, and land capability), thereby providing opportunity for improvement in the way we manage the resources. As the Catchment Management Plan for the Little River progresses, maps showing land use recommendations and areas of priority for investment in remedial works will be included in the GIS project. Also, a record of the activities undertaken can be maintained eg. where trees have been planted, water quality monitoring updates, changes in known saline sites etc.

The Little River GIS contains the following information:

Name of theme	Description	Date	Scale	Source
1. Geographic Data				
Study Boundary	Boundary of the Study Area		1:100000	DLWC
Study Boundary	Sub-catchment boundaries		1:100000	DLWC
Infrastructure	Towns, villages, roads, rail etc.			DLWC
Shire Boundaries	Local Government boundaries			DLWC
2. Natural Resource Data				
Hydrography	Rivers, creeks, surface water			DLWC
Relief (Drainage)	Contours		1:100000	DLWC
Geology	Geological Provinces – lithology, complexity	1999	1:250000	DLWC / AGSO
Soils	Soils landscape units, topsoil acidity	1990-1999	1:250000	DLWC
3. Landuse & Erosion Data				
Landuse	Landuse	1988	1:100000	DLWC
Land capability	Land capability	1988	1:100000	DLWC
Erosion I	Land and water degradation (Sheet & Rill)	1988	1:100000	DLWC
Erosion II	Land and water degradation (Gully)	1988	1:100000	DLWC
Dryland Salinity	Known saline sites	1992 & 1998-9	1:100000	DLWC
4 Vegetation Data				
Woody Vegetation	Woody vegetation (trees of significant size) – Raster Data			DLWC
Vegetation Types	Eastern Bushlands Data	1989-1991	1:250000	NPWS

1.3 PLANNING FRAMEWORK

A number of other planning processes and natural resource management programs are in place, driven by national, state and regional bodies. It is necessary for this Catchment Plan to be compatible with these, and to take advantage of the benefits and resources they offer.

1.3.1 National

Natural Heritage Trust - including key programs (see http://www.affa.gov.au/dpie/nht)

- Bushcare: The National Vegetation Initiative
- Endangered Species Program
- FarmBis - Farm Business Improvement Program
- Farm Forestry Program
- Fisheries Action Program
- Murray-Darling 2001
- National Feral Animal Control Program
- National Landcare Program, including Property Management Planning
- National Land and Water Resources Audit
- National Rivercare Program
- National Weeds Program
- National Wetlands Program
- Waterwatch Australia

The NHT, in its current "form" finishes in mid 2001. The Federal Government is currently considering future policy and programs to take its place. During 1999, the Mid Term Review of NHT was conducted, and the *National Natural Resources Management Statement* (69) was prepared. The Statement became available in December 1999 for consultation and comment.

Murray Darling Basin Commission

- Basin Sustainability Program (the strategic plan of the MDBC) (68)
- The Salinity Audit (62)

Federal Agency Policy
Agriculture, Fisheries and Forests Australia (AFFA) (formerly DPIE)
Environment Australia (EA)
Regional Development and Transport
Prime Minister's Scientific and Engineering Council - Salinity Objectives

1.3.2 State

- Water Reform Process
- Native Vegetation Conservation Reform
- State Salinity Strategy (due to be released in July 2000)
- State Catchment Management Coordination Committee
- State Assessment Panel (for external funding)
- Agency programs - Dept Land & Water Conservation (DLWC)
  NSW Agriculture
  National Parks & Wildlife Service (NPWS)
  Environment Protection Authority (EPA)
  State Forests, NSW Fisheries
  Dept. Urban Affairs and Planning (DUAP)

1.3.3 Regional

- Central West Catchment Management Committee
    - Strategic Plan 1997-2000 (70)
    - Key Resource Management Issues (70) (see Appendix 1)
    - Remnant Vegetation Strategy (6)
    - Salinity Risk Assessment (59)
    - Nutrient Management Strategy (CMSS)
- Macquarie Regulated & Unregulated River Management Committees
- Macquarie Groundwater Management Committee
- Macquarie Marshes Water Management Plan (66)
- Wellington Dubbo Regional Management Plan
- Macquarie 2001 (Macquarie Valley Landcare Plan)
- Local Government Statutory Plans (15, 20, 23)
- Landcare, catchment and property planning

References

(6) G. Howling (1997) *Remnant Vegetation Strategy for the Central West Catchment* CWCMC

(15) Cabonne Council (1997) *Cabonne Local Environmental Plan 1991 - Composite Plan Incorporating Amendments up to 4 February 1997*

(20) Dubbo City Council (1995) *Rural Area Development Strategy 1995 - 2015*

(23) Wellington Council (1995) *Wellington Local Environmental Plan 1995*

(59) E. Humphries (2000) *Salinity Risk Assessment of the Central West Catchment* Central West CMC

(62) Murray Darling Basin Ministerial Council (1999) *The Salinity Audit of the Murray Darling Basin - A 100-year Perspective* MDBC

(66) DLWC & NPWS (1996) *Macquarie Marshes Water Management Plan* DLWC

(68) MDBC1996 *Basin Sustainability Program* MDBC

(69) AFFA (1999) *Managing Natural Resources in Rural Australia for a Sustainable Future - a discussion paper*

(70) Central West Catchment Management Committee (1996) *Strategic Plan 1997-2000 and Key Natural Resource Issues Sheets* CWCMC