PLANNING FRAMEWORK

3. PRIORITISING THE ISSUES

During Stage 1, the biophysical, economic, and social issues affecting the land and the people were identified. These are shown in Chapter 1, Table 1.1 - the Stage 1 Summary. Attachment 3.1 provides the original descriptions, and shows in which subcatchments the issues were raised.

3.1. *Multi-Criteria Analysis for Prioritising the Issues*

Priorities need to be established, so catchment managers and investors can be certain that funds and resources are being directed towards the most needy issues. The original identification of issues listed in Table 1.1 was based on community perceptions. A Multi-Criteria Analysis (MCA) using a wide range of criteria, and founded on the data collated in the Stage 1 report, has been undertaken to further refine the community priorities. (Attachment 3.2 provides the description of each criterion and the values used.) This in-depth analysis ensures that the management plan is based on rigorously defined priorities.

Table 3.1: Criteria used to determine the Priority Issues for the Catchment Plan

Area	Criteria
Perceived Importance	Priority from community consultation
	LRLG Steering Committee priority (goals)
	Central West CMC priority
	Capacity to influence / control the problem
Current Situation	Extent
	Severity
	Rate of development
Process	Catchment or farm impact*
	Driver of other issues
Biophysical Impacts	Agricultural production - within the catchment
	Environment - within the catchment
	Agriculture / Environment -off site
	Urban and Infrastructure
Potential Economic Impacts	Economic- Farm
	Economic - Region
Management Options	Availability of management options
	Potential return on $ invested
	Degree of change required
	Urgency of action
	Impediments to change
Capacity to Evaluate	Available benchmarks & monitoring options

* This plan focuses on the issues that have catchment implications and off-site impacts. Measures to correct degradation that only affect the land manager responsible eg. soil fertility, will not be funded externally as part of the implementation of this catchment plan, as the benefits are mostly private.

3.2. *Priority Issues for the Little River Catchment*

A MCA was undertaken using the 21 criteria shown above. Wherever possible, the data collected in the Stage 1 report for the biophysical issues was used to assign values for each criterion. These values were added together and the total scores ranked to provide a prioritised list of the following issues. Attachment 3.3 provides the complete MCA.

The following issues identified during the community consultation meetings were further subdivided for the MCA, and subsequent development of management recommendations:

Dryland salinity - separated into a) rural dryland salinity, b) urban salinity;
Soil structure and fertility decline - separated into a) soil fertility decline, b) soil structure decline, c) soil sodicity.

Table 3.2: Prioritised Issues in Ranked Order using Multi-Criteria Analysis

Issue in Little River Catchment	Total Score MCA	MCA Rank	Rating	Community Rank
Dryland salinity & rising watertables-rural	59.6	1		1
Soil acidity	55.7	2		3
Poor surface water quality	53.7	3		17
Decline in native vegetation & biodiversity	50.1	4	**H**	5
Pasture degradation	48.9	5	**I**	14
Soil erosion	46.6	6	**G**	8
Soil structure decline	45.7	7	**H**	*
Riparian zone degradation	45.4	8		23
Inadequate skills base/education	44.5	9		11
Low farm profitability	43.3	10		12
Weed invasion	43.2	11		8
Climate variability	42.7	12		19
Soil fertility decline	41.7	13	**M**	19
Limited employment opportunities	41.6	14	**E**	5
Low rural commodity prices	40.3	15	**D**	3
Poor groundwater quality	38.6	16	**I**	12
Government policy	37.5	17	**U**	2
Alien fish numbers	34.7	18	**M**	14
Aging farmers/lack of estate planning	33.3	19		19
High cost of sustainable agriculture	32.8	20		19
Urban salinity	32.5	21		*
Loss of rural services	31.1	22		5
Pest animals	30.8	23		14
Inequities in access to surface water	29.0	24	**L**	17
Soil sodicity	28.0	25	**O**	*
Livestock diseases eg Johnes	27.3	26	**W**	23
Poor transport infrastructure	26.3	27		8
Lack of community cooperation	23.8	28		23
Limited access to groundwater	17.8	29		23

* additional issues defined for Stage 2.

3.3. *Priority Land Management Units*

GIS analysis of the extent of some of the high priority biophysical issues within each of the Land Management Units (LMUs) (see Ch. 5) has provided information that has been used to determine the priority LMUs in the catchment for action. The GIS analysis for each LMU, from which the data in Table 3.4 has been derived, can be found in Attachment 5.1. Some additional aspects ie. risk of deep drainage and magnitude of production losses, have been estimated, as they have a significant bearing on how urgent change is and, therefore, the need for investment.

Table 3.4 Prioritised Land Management Units derived from GIS data and other estimates

LMU	**Area Salinised 1998**		**Rate of Salinis-ation** (increase 1992 -1998)		**Risk of Deep Drainage / Recharge to other LMU** (est)	**Tree Cover Deficit** (Compared to recommended land capability)		**Area Sheet Erosion** a) minor b) moderate/severe c) Total		**Gully Erosion** (estimated from maps, GIS analysis not available)	**Topsoil Acidity** a) Very severe b) Severe #		**Magnitude of Potential Production Losses** (estimate)	**Total Score** (Sum of ranks)	**Over-all Rank**	**Priority**
	%	Rank	%	Rank	Rank	%	Rank	%	Rank	Rank	%	Rank	Rank			
Red Brown Earths	3.25	1	494	4	6	10	6	2.6, 53.8 56.4	1	6	1.6, 98.4	4	1	29	**1**	**HIGH**
Non Calcic Browns	2.85	2	318	6	4	12	4	3.9, 32.8 36.7	4	3	0 100	6	4	33	**2**	
Siliceous Sands	1.35	6	299	7	1	15	3	14.7, 6.5 21.2	7	1	47.1 51.9	2	7	34	**3**	
Riparian Zone (estimates)	high	3	high	1	9	>15	1	high	2	5	low	8	8	37	**4**	
Red Podzolics	0.64	8	165	9	3	17	2	6.7, 8.6 15.3	9	2	41.3 14.7	3	6	42	**5**	**MEDIUM**
Euchrozems	1.85	5	843	3	7	10	7	2.9, 24.1 27.1	6	7	0 0	7	3	45	**6**	
Alluvials	2.49	4	2669	2	8	10	8	15.6, 3.8 29.4	5	8	0 0	9	2	46	**7**	
Red Solodics	1.12	7	221	8	5	11	5	10.3, 8.7 19.0	8	4	0 100	5	5	47	**8**	
Shallow Soils	0.52	9	404	5	2	6	9	35.9, 4.8 50.8	3	9	98.6 0	1	9	47	**9**	**LOW**

Very severe = <4.5 Severe = >4.5<5.5