

11. LAND USE

11.1 VALUE OF AGRICULTURAL PRODUCTION

The economic and social structure of the Little River Catchment is dependent on agriculture and it is by far the largest employer. In 1993/4, the total value of production was approximately \$27 million from 221 farms or just over 120,000 per farm or \$186 /ha (40). This is derived almost entirely from dryland agriculture, with only very minor areas of irrigation in the north along the Macquarie River floodplain.

The ABS statistical divisions of Wellington, Dubbo and Cabonne are all represented in the Little River Catchment. Wellington statistical division had a gross agricultural value of \$62.88 million for the 1996-1997 year. Dubbo's gross agricultural value was \$41.94 million for the same time period while agricultural production in the Cabonne Shire was valued at \$136.82 million.

Much of the land is considered to be very productive, especially compared to land further to the east. This may explain the large numbers of stud stock enterprises, both sheep and cattle, which exist in the catchment.

Gross income is spread approximately evenly between sheep, cattle and cropping, despite fluctuations in numbers as farmers alter their enterprise mixes to adjust for market variations. Beef cattle account for the single largest enterprise, making up 27% of total agricultural production. Fine to medium wool is still the main income from sheep; even after a long period of poor wool prices during the 1990's.

The value of cropping can fluctuate greatly from 30% to 60% of total income. Winter cereals, predominantly wheat, oats and barley, account for 85% of all cropping. Oilseeds, particularly canola, hay crops and legumes make up the rest (40). Almost no summer cropping is practiced.

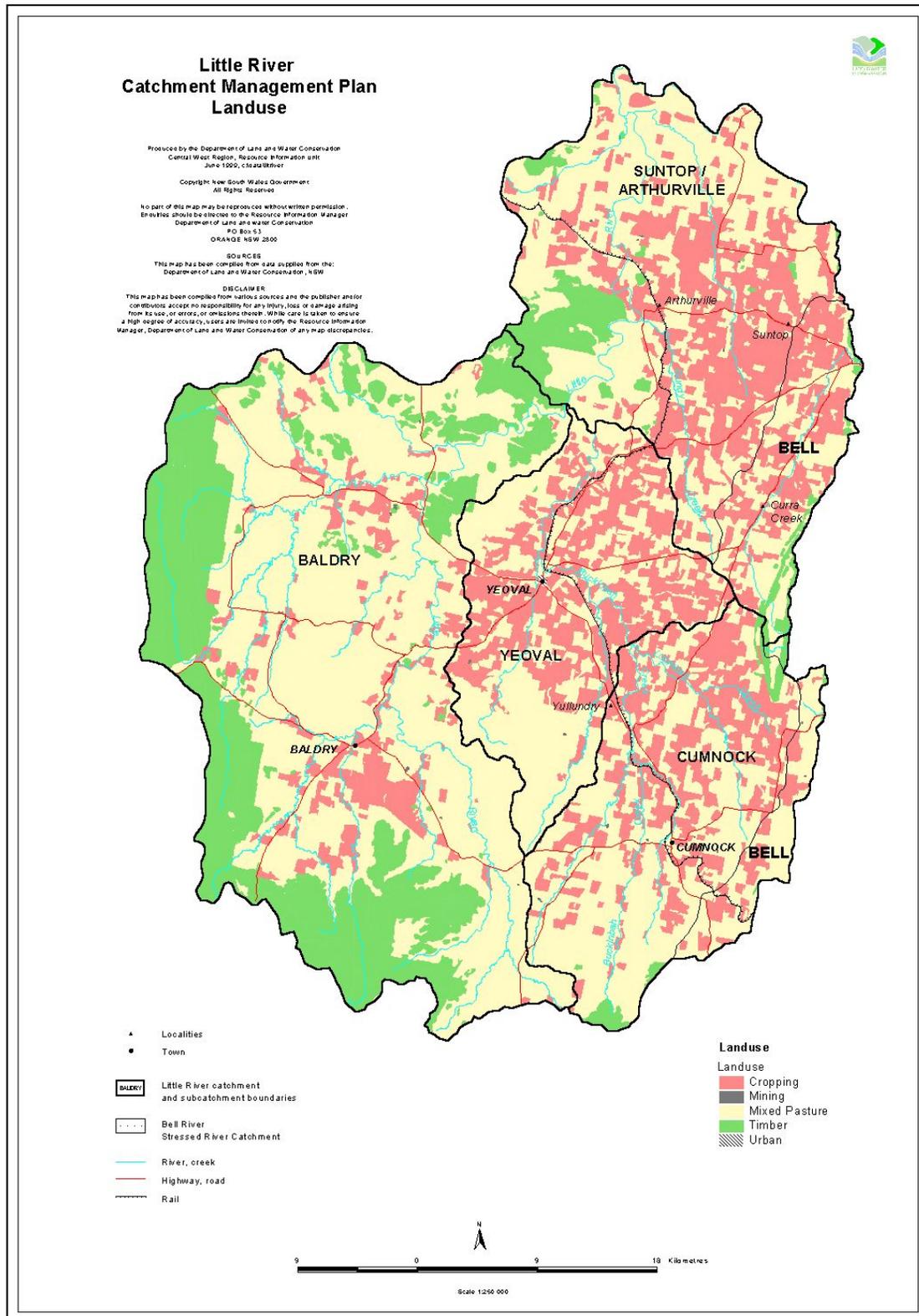
Land capability, soil type and climate largely determine landuse in the Little River Catchment. Land use was mapped by the Soil Conservation Service in the late 1980s using the 1988 aerial photos. The landuse categories mapped were cropping, mining, mixed pasture, native timber and urban areas. (See Figure 14 and Table 11.)

There has been no updating of the mapping. Analysis of satellite imagery could be used to provide approximate areas of current land uses, along with other attributes such as the current extent of erosion.

Table 11: Landuse by Subcatchment in Little River

Landuse (ha)	Baldry	Yeoval	Cumnock - Little River	Cumnock -Bell River	Suntop/ Arthurville - Little River	Suntop/ Arthurville -Bell River	TOTAL
Cropping	8647	15200	12880	1468	18397	6152	62743
Mining	19	8	15	2	8		52
Pasture	68843	20965	23745	4543	30404	6434	154935
Timber	33625	47	1080	255	4477	1060	40544
Urban etc		45	2				47
TOTAL	111134	36266	37721	6268	53287	13646	258322

Figure 14: Landuse



11.2 LANDUSE CATEGORIES

11.2.1 Cropping

In 1985, cropping occurred over 25% of the Little River Catchment (~ 63 000ha). The majority of cropping is in the eastern half of the catchment on Class 3 land in the Suntop/Arthurville, Cumnock and Yeoval subcatchments. Cropping occurs as part of mixed farming enterprises and usually forms part of a crop/pasture rotation. The area under cropping varies to some extent as crop and stock prices fluctuate. However, cropping is probably becoming more intensive in the more fertile areas, and where water is available for irrigation along the river flats of the Macquarie and lower reaches of the Little River.

There appears to be some areas that are being cropped beyond their land capability. Inappropriate landuse can cause significant land degradation including erosion, soil structure and fertility decline, dryland salinity and acidification.

In 1998, there was approximately 97 000 hectares of wheat and 30 000 hectares of oats planted in the Wellington and Cabonne Shires (37). (N.B. These figures are for the whole shires and not just the areas within the Little River Catchment.) Canola and barley are also important crops. Very few summer crops are grown despite the rainfall being almost evenly spread between summer and winter. A few orchards and vineyards have been established in recent times in the catchment.

11.2.2 Mixed Pastures

Native and improved pastures are found in areas that are unsuitable for cropping due to topography, soil or climate. Pastures are generally improved by aerial seeding and fertilizing, although there are occasional areas of sown pastures. These pasture areas are generally stable unless there are excessive stocking rates and reduced ground cover, which can lead to erosion. Some areas are sown to lucerne in rotation with cropping.

Native pastures are generally found on poorer soil types. The country usually also carries timber, which has been thinned to promote grass cover. There is potential for pasture improvement, however due to poor accessibility and poor stock prices, it has not been realized. Grazing is the biggest landuse in the Little River Catchment and in 1988, occurred over 60% of the area. Most of the Baldry subcatchment is under grazing. In 1998, approximately 2 million sheep, 200 000 cattle and 22 000 pigs were found in Wellington & Cabonne Shires (37).

11.2.3 Native Timber

Trees have generally been left on land that is too steep and stony for grazing. These areas are often inaccessible or very infertile. Some timber is cut and milled on a commercial basis, mainly ironbark and cypress pine. Most timbered land unit is found along the Catombal Ranges, Hervey Ranges and the Goobang National Park. There are minor Crown Land reserves in all subcatchments which have been left under native vegetation.

11.2.4 Mining

There are small areas of mining and quarrying scattered across the catchment, particularly north and west of Yeoval. A number of these mines are now classified as derelict, including gold mines. The geological formations have resulted in a high potential for heavy metals, especially gold and copper (71).

11.2.5 Urban

There are a number of small towns and localities within the Little River Catchment. These include Yeoval, Cumnock, Baldry, Obley and Walmer. When landuse was mapped in the late 1980s, only Yeoval was mapped as an urban area, even though other urban areas exist.

(In Table 11, the two hectares in the Cumnock subcatchment represents an area of water; not the village of Cumnock.)

References:

- (3) Soil Conservation Service (1982) *Wellington Technical Manual Ch 7*
- (24) Soil Conservation Service (1978) *Orange Technical Manual Ch 7*
- (37) Australian Bureau of Statistics (1999) *ABS Regional Statistics 1999*
- (40) Ivey ATP (1999) *Costs of Dryland Salinity in the Little River*
- (48) Department of Land and Water Conservation (1999) GIS Maps and Statistics – landuse, erosion maps
- (71) Meakin & Morgan (1999) *Dubbo 1:250 000 Geological Sheet Explanatory Notes*