LAKE MOKOAN

ECONOMIC AND TOURISM CONTEXT

DRAFT

Prepared for

Department of Sustainability and Environment

By

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INTRODUCTION

Objective of this Report

The objective of this report is to provide the "*Lake Mokoan Land Use Strategy"* project team with contextual background information regarding the economy and tourism in the region, and the implications this may have for the future land use options for land which becomes available following the decommissioning of Lake Mokoan.

Study Region

For this report, the Study Region comprises the Rural City of Benalla and the Rural City of Wangaratta. In October 2002, Delatite Shire was de-amalgamated into Benalla and Mansfield municipalities. Benalla (RC) comprises the former statistical local areas of Delatite – Benalla and Delatite – North.

Combined, the study region covers an area of 2,340 km², and has an estimated resident population of 40,720 people in 2004.

Structure of Report

The report is set out as follows:

Chapter 1: Existing Conditions – provides details on the demographic trends, the labour force, and industries of employment, including agriculture and tourism.

Chapter 2: Legislation and Policy – provides a review of the relevant policy framework, focusing on the local planning schemes, economic development policies and tourism development policies.

Chapter 3: Literature Review – this chapter presents an overview of relevant studies and a summary of findings with regard to land use and economic impacts of activities on the lake and uses of irrigation water.

Chapter 4: Opportunities and Constraints – attributes of the study area, development opportunities and constraints to development are explored in this chapter.

Chapter 5: Conclusion – summary conclusions on the findings of this background review and the implications for development of land use options.

Status of Report

This draft report is based on desktop research, review of existing documents of relevance to the future land use of Lake Mokoan, reviews of policy documents and studies of relevance to the future use of Lake Mokoan and the initial round of community consultation.

The report will be updated as required as additional information becomes available. This version was updated in August 2005 to reflect new information and the outcomes of community information sessions and consultations held in Benalla in August 2005.

1 EXISTING CONDITIONS

1.1 Introduction

This Chapter provides a detailed analysis of the following features of the study region:

- **Demographic trends** including population trends and forecasts, age profile and other socio-economic characteristics of residents;
- **Labour force** information including where people work and in what industries, and trends in unemployment levels;
- **Profile of the local economy**;
- An assessment of the **tourism industry** including existing tourism attractions and infrastructure, and visitation levels and visitor profiles;

In later Chapters, the demographic trends, labour force and economic profile will assist in providing perspective for the policy framework and the literature review and will provide the base for subsequent considerations of potential uses for the lake area.

1.2 Demographic Trends

The study region has an estimated population of 40,720 people, 64% of whom live in the urban areas of Wangaratta and Benalla.

Over the last decade or so, the study region has experienced relatively slow population growth. From 1991 to 2004 the resident population increased from 39,640 to 40,720, representing an average annual growth of 0.2% pa, which was lower than the average for regional Victoria (0.6% pa). During this time the majority of population growth (93%) occurred in the northern parts of Wangaratta municipality, and largely associated with the residential development occurring on the Wangaratta – Yarrawonga Road and College Street, as well as an increase in rural residential living. Population levels declined in the southern parts of the Wangaratta municipality.

The Department of Sustainability and Environment (DSE) population forecasts show that the study region is expected to experience moderate population growth over the coming decades, with growth mainly concentrated in Wangaratta (RC) – North, and to a lesser extent Benalla (RC) – Benalla. The population in Wangaratta (RC) – South is forecast to continue to decline. Between 2004 and 2011 the study region's resident population is expected to increase by 1,020 people (net). Refer to Appendix (Table 5.1) for detailed table of population statistics.

The age profile of the study region is currently relatively similar to that of the rest of regional Victoria, however, there is a slightly higher share of residents aged over 60 (21%), compared to the state average (17%). As shown in Table 3.1, over the coming decades, the share of elderly residents is expected to increase considerably, and in 2031 approximately 40% of residents in the study area will be aged 60 and over, compared to 29% for Victoria. The aging of the resident population will change demand patterns for housing types, recreation and leisure activities, and community and health services.

Table 1.1 Share of Resident Population Aged 60 and Over

	2001	2031
Rural City of Benalla	22%	40%
Rural City of Wangaratta	21%	41%
Victoria	17%	29%

Source: Department of Sustainability and Environment, Victoria in Future 2004

Per capita income levels in the study area are similar to the average for regional Victoria at $22,000 per annum (2001 ABS Census). Based on Australian Taxation Office statistics, in 1998/99 the mean taxable income of taxpayers in Wangaratta and Delatite municipalities was $29,000 and $28,360 respectively, while the average for regional Victoria was $30,070 (Table 3.1, ABS Cat 1362.2). The share of residents receiving Job Search, Newstart or sickness benefits in these municipalities (prior to de-amalgamation) was similar to the regional Victoria average of 4.5% of the resident population (Table 3.1, ABS Cat 1362.2).

1.3 Profile of the Local Economy

The study region's economy is diverse, with a strong industrial base providing important inter-sectoral links to the primary and tertiary sector. The majority of industrial and commercial activity is concentrated in Wangaratta, followed by Benalla.

The agricultural base of the region is extremely important in economic and employment terms. The major primary industries for the region have traditionally been timber, wool, prime lambs, beef production, pasture seed, and broad acre cropping. Although these industries are still important, and expansive in terms of land area, in recent years the agriculture sector has been diversifying into more intensive industries such as wine grapes, olives, stone fruit, and citrus fruits. Emerging potential agricultural industries identified are hemp, viticulture and farm forestry.

Manufacturing is a major industry sector for the study region, with the majority of manufacturing businesses located in the two industrial estates in Wangaratta, and in Greenfields Estate in Benalla. According to the 1998 Business Register for Wangaratta, the manufacturing sector accounted for 19.3% of jobs in the shire, and within this sector the Textiles, Footwear and Clothing sub-sector accounted for approximately 50% of manufacturing jobs. The 2020 Community Plan for Wangaratta envisages that by 2020 the municipality will be "the primary centre for the textiles industry in Australia". In comparison, in 1998 the manufacturing sector accounted for 2.7% of jobs in the Rural City of Benalla, with wood and paper production industries accounting for 67% of manufacturing jobs (ABS 1998 Business Register).

Some of the main manufacturing employers are:

- Bruck Textiles (RC of Wangaratta)
- Australian Country Spinners (RC of Wangaratta)
- Alpine MDF Industries (formerly Dominance Industries) (RC of Wangaratta)
- Brown Brothers (RC of Wangaratta)
- Australian Defence Industries (RC of Benalla)
- Schneider Electric (RC of Benalla)
- Monsbent (RC of Benalla)
- Benalla Spinners (RC of Benalla)

Approximately 58% of the resident labour force is employed in the tertiary or service sectors, with many of these jobs located in Wangaratta and Benalla town centres. There are a number of private and public hospitals in the study region, as well as primary and secondary schools and Goulburn Ovens Institute of TAFE campuses at Wangaratta and Benalla. Approximately 19% of the region's labour force is employed in the health and education sectors. Retail and office-based jobs (finance, property, insurance etc) are also an important component of the study region's economy, providing necessary goods and services to local businesses, residents and tourists. Tourism is also an important sector for the study region, and this industry sector is examined in greater detail in Section 3.5.

A number of business support groups operate in the study region, and these include the Wangaratta Chamber of Commerce, Wangaratta Unlimited, and eight industry reference groups established in Benalla in 2005 (refer Chapter 1) following the demise of Action Benalla in 2004. The tourism industry in Benalla is also served by the new (2005) Tourism Advisory Committee.

1.4 Profile of the Resident Labour Force

In December 2004, the study region had a resident labour force of 21,910 (Department of Employment and Workplace Relations, Small Area Labour Markets), which represents a crude labour force participation rate of 54%; this compares to 48% for regional Victoria, which indicates the study region has a relatively economically active population.

During 2004, unemployment levels in the study region were lower than average for regional Victoria (6.2%), and ranged from 4.7% to 4.9% (or 910 to 1,040) during 2004 (Department of Employment and Workplace Relations, Small Area Labour Markets).

Need to check with Councils regarding the recent developments in business closures, start-ups and expansions.

The sectors of employment of the resident labour force highlight the importance of the Manufacturing sector. In 2001 approximately 19% of the resident labour force was employed in the Manufacturing sector, compared to 13% for regional Victoria. The other main sectors of employment are Retail Trade, Health & Community Services, and Agriculture, Forestry & Fishing.

Table 1.2: Main Sectors of Employment of Resident Labour Force, 2001

Industry/Sector	Study Region	Regional Victoria
Manufacturing	19%	13%
Retail Trade	16%	15%
Health & Community Services	12%	11%
Agriculture, Forestry, Fishing	11%	11%
Other	42%	49%
Total	**100%**	**100%**

Source: 2001 ABS Census of Population and Housing

The majority of study region residents (85%) work in the study region, with the majority of jobs located in urban Wangaratta and Benalla (refer Table 1.3). The ratio of jobs to resident labour force shows that the study region is actually a net importer of employees, with more jobs than working residents can fill.

Table 1.3: Location of Employment of Resident Labour Force

Item	Measure
% of resident labour force who work in study region	85%
% of resident labour force who work in Benalla or Wangaratta urban centres	70%
Ratio of jobs to resident labour force	103 jobs for every 100 resident labour force

Source: 2001 ABS Census of Population and Housing

1.5 Tourism Industry

Tourism in the Study Region

Tourism is an important part of the study region's economy and is seen as a growth industry for the future. Currently, tourism in the region is centred around Food and Wine tourism, Arts and Cultural Heritage, Nature-based Tourism, Sport Related Tourism and Events Tourism.

The key tourism attractions include:

- Wineries and cottage-based food industries located in Milawa, King Valley, Rutherglen and to a lesser extent locally in the Warby Ranges (Food and Wine);

- The Winton Motor Raceway which attracts between 70,000 and 100,000 visitors per year (the raceway is located approximately 1-2 km south of the Hume Highway on the south side of Lake Mokoan) and the Victorian Gliding Centre at Benalla (Sports related tourism).

- The successful Benalla Art Gallery which attracted 76,000 visitors in 2003, the recently opened Benalla Performing Arts and Convention Centre, and the historic townships of Beechworth (bakery, shopping, historic buildings, Kelly history) and Rutherglen (Arts and Cultural attractions);

- The Wangaratta Festival of Jazz, which was recently promoted as a Hallmark Event by Tourism Victoria, and other smaller events held throughout the year. In the North East Strategy Plan a strategy is to promote Wangaratta as the centre for jazz, like Tamworth is for country music (Events);

These key tourism attractions are supported by tourism infrastructure such as the Visitor Information Centres in Benalla and Wangaratta and many commercial accommodation providers.

The most exciting tourism development for the region is the revitalisation of Glenrowan and the associated development of an interpretative centre / museum and the Ned Kelly Touring Route which will take in a number of towns across the region, including Glenrowan, Benalla, Mansfield, Beechworth and Euroa.

Another significant development is the sealing of the Falls Creek - Omeo Road between Falls Creek and Anglers Rest, which will create a touring loop through the Alpine high country. This expected to significantly boost tourism numbers to the north-east region, particularly outside of Winter months.

The two municipalities also have a range of smaller attractions including heritage houses, natural features, township events, etc which are important in generating tourism spending and employment.

The Role of Lake Mokoan as a Tourist Attraction

Lake Mokoan attracts a number of visitors across the year, as shown in the Lake Mokoan Study (refer Section 2.2), although it is likely that the majority of visitors (except for the anglers) are from the local area. Lake Mokoan is more so a 'supporting' attraction, rather than a 'primary' attraction. The lake's tourism role is strongest for fishing, in that an estimated 4,740 fishing days (rounded) were expended (year 2000 – refer Lake Mokoan Study 5-11). A series of events are hosted on the lake through the year eg two sailing regattas, Golden Classic fishing competition and duck opening which would also attract visitors from further afield. Long standing issues with blue green algae and fluctuating water levels have limited the access and attractiveness of the lake for water-based activities.

A summary table of recreational expenditure (Lake Mokoan Study p 5-20) is shown below.

Table 1.4: Summary of Recreational Person Days and Expenditure

Activity	Estimated number of person days	Estimated percentage of person days	Estimated annual expenditure in region by recreationsts at Lake Mokoan ($) – Mid-point
Fishing	5,000	46%	$200,000
Duck-hunting	2,600	24%	$186,000
Yachting	1,150	11%	$45,000
Water Skiing	400	4%	$20,000
Day picnicers	1,500	15%	$68,000
Totals (rounded)	**10,650**	**100%**	**$519,000**

Source: Lake Mokoan Study – Final Report Volume 1 p5-20

Note that the Lake Mokoan Study also discusses net economic value to Lake Mokoan recreationists, which differs slightly from the expenditure value, but we have not included this component in the discussion. These values and the differences in measure can be explored in more detail a later stage if required.

Regional Visitation Trends to the Legends Wine and High Country Region

The study region is located in the Legends, Wine and High Country (LWHC) region. In 2004, the region received approximately 1 million domestic overnight visitors, 17,000 international overnight visitors, and 925,000 million day trip visitors. Since 1999, visitor levels have remained relatively stable, at around 1 million overnight visitors and 1 million day trip visitors.

Table 1.5: Visitor to the Legends, Wine and High Country Tourism Region, 2003/04

	1999	2000	2001	2002	2003	2004
Domestic						
Domestic overnight visitors	976,000	1,033,000	918,000	1,090,000	62,000	1,014,000
Domestic day trip visitors	1,132,000	1,430,000	868,000	750,000	1,038,000	925,000
International overnight visitors	19,730	18,550	19,580	17,550	17,550	16,760

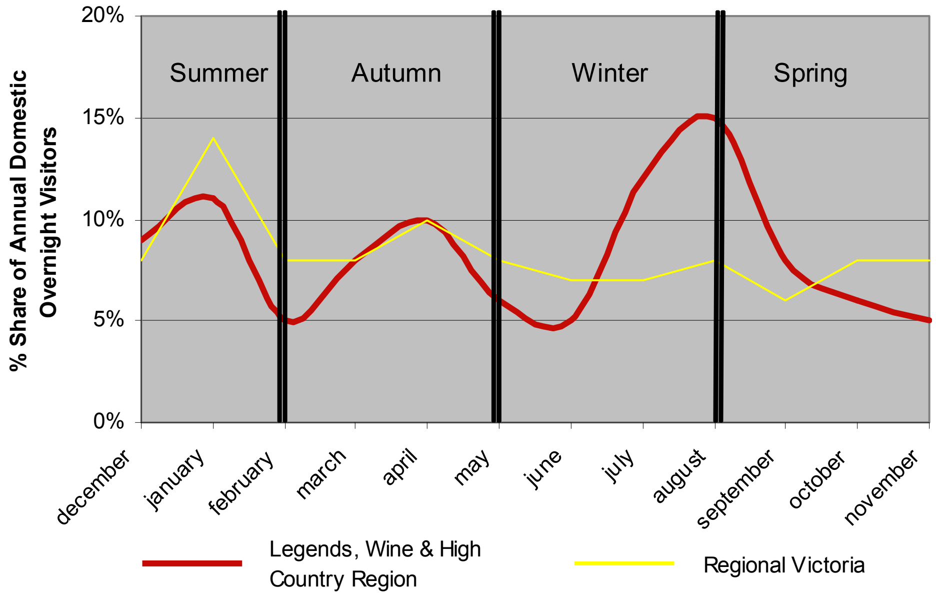
Source: Tourism Victoria Market Profiles, Year Ending December 2004

Intrastate visitors are the main visitor market to the LWHC, comprising 81% of the domestic overnight visitor market in 2004. Visitors from NSW are the largest interstate market. Most domestic overnight visitors to the region are in the 25-44 years age cohort (38%), and the majority of groups travelling to the region are travelling with friends or relatives (31%), in an adult couple (27%), or in a family (25%).

Seasonality of Visitation and Occupancy Rates

Chart 1 shows domestic overnight visitor numbers for the LWHC campaign region benchmarked against the average for Regional Victoria. The LWHC region includes the ski fields and this significantly influences visitation patterns. Allowing for this factor, it is therefore more likely that visitation patterns to the study region reflect the average for regional Victoria.

Chart 1: Domestic Overnight Visitors to LWHC Region, Year Ending June 2004



Room occupancy statistics prepared by the ABS show that occupancy rates for Wangaratta and Benalla remained relatively constant across the four quarters in 2004, averaging from 47% to 55%. According to the Table 3.6, Summer and Autumn are the busiest periods; however, overall occupancy rates appear stable.

Table 1.6: Room Occupancy Rates for Commercial Accommodation with 15+ Rooms, 2004

Area		March Qtr	June Qtr	September Qtr	December Qtr
Wangaratta (RC)	No. of Rooms	260	259	259	259
	Room Occupancy Rate	53.2%	57.7%	52.1%	53.3%
Benalla (RC)	No. of Rooms	97	97	94	99
	Room Occupancy Rate	52.5%	55.2%	46.7%	51.8%

Source: ABS Tourist Accommodation, Small Area Data, ABS Catalogue No. 8635.2.55.001

1.6 Conclusion

The study region currently has an estimated resident population of 40,720 people, of whom 64% live in the urban areas of Wangaratta and Benalla. Over the last few years, the region has experienced relatively stable population growth, but in certain rural parts of the region population levels have been declining. There are a number of small towns in the study region which provide necessary community, commercial and retail services to surrounding residents, and increasingly these towns are performing a tourism role, such as Milawa, Oxley and Glenrowan.

Both Wangaratta and Benalla face issues of retaining school leavers and attracting young adults and families to the region. Whilst the age profile of residents is relatively similar to that of the rest of country Victoria, DSE forecast that by 2031 the share of elderly residents aged over 60 will substantially increase to 40% (regional Victoria at 29%). In response to these issues, Wangaratta (RC) is undertaking a population growth strategy, which looks at Federal and State government programs for resettlement of newly arrived migrants as well as a range of strategies to improve existing social services (eg child care centres).

The study region's economy is diverse, with a strong industrial base providing important inter-sectoral links to the primary and tertiary sectors. The majority of industrial and commercial activity is concentrated in Wangaratta, followed by Benalla. Approximately 70% of residents work in the main centres of Wangaratta and Benalla.

Tourism is regarded as an important 'growth industry of tomorrow'. The main tourism attractions which draw visitors to the study region include the Winton Raceway, Benalla Art Gallery, Wangaratta Festival of Jazz, and numerous wineries and cottage based food industries. Business related tourism is regarded as an important market to develop, and the recently opened Benalla Performing Arts and Convention Centre will be important in this respect. Despite these main attractions (and a number of smaller attractions), to a large extent the study region depends on the drawing power of the Murray River, Beechworth, Bright, and the Alpine High Country to attract visitors, and traffic levels on the Hume Highway for passing trade.

2 LEGISLATION AND POLICY

2.1 Introduction

This Chapter reviews state, regional and local policies relating to economic and tourism development in the study region. Some relevant policies, eg Growing Victoria Together, are reviewed in the Planning Report and therefore not discussed in this Chapter.

2.2 Planning Schemes

The purpose of the review of the Benalla and Wangaratta Planning Schemes is to identify the key priority areas for economic and tourism development, and to identify any specific aspects relating to Lake Mokoan.

Rural City of Benalla Planning Scheme

The vision for the municipality is that "Benalla will be recognised as a leader in balanced economic, social and environmental planning in a way that recognises the diverse needs and values of its communities" (**Clause 21.04**).

The Municipal Strategic Statement (MSS) seeks to strengthen and diversify the local economy, and this will be achieved through the main industry sectors of tourism, retail and service industries, agriculture and industrial development. Underpinning all of Council's strategic aims is that development, whether tourism, agricultural or social, must consider the environment and the long-term sustainability of any such activity or practise. Essentially, the MSS aims to reposition the municipality's economy in response to broader structural changes occurring in the economy, and how to adequately respond to environmental issues such as water and salinity.

In **Clause 21.08** the MSS sets out the issues, strategies and objectives and implementation plan for economic development. The issues (and in some cases opportunities) that the MSS seeks to address that are of relevance to Lake Mokoan are, among others:

- *"Reduce viability of traditional agriculture"*
- *"Development of timber industry"*
- *"Vibrant and growing tourism industry"*
- *"Significance of natural features and natural based activities for tourism"*
- *"Lack of identification of the municipality's heritage assets and the tourism and economic potential of the municipality's heritage"*
- *"Maintain viable commercial centre in Benalla"*
- *"Potential impact of rural housing being developed on rural allotments, without due regard to orderly planning, services, environmental impacts and the loss of land from rural production"*

In response to these issues (and opportunities), the MSS identifies sets out the following strategies:

- *"Encourage and support viable and diversified agricultural pursuits"*

- *"Encourage both hardwood and softwood plantation establishment on predominantly cleared land to enhance the regional economy, assist in diversification of farm practises"*
- *"Promote the municipality's heritage for tourism"*
- *"Support the development of a Sports Aviation Centre in Benalla"*
- *"Support cultural tourism based on bushranger legends, explorers, aboriginal heritage and the visual and performing arts"*
- *"Identify and capitalise on competitive advantages, such as outdoor education and adventure type activities"*

Rural City of Wangaratta Planning Scheme

The key issues facing the Rural City are related to the environment, settlement and economic development (**Clause 21.02**). In terms of economic development, the key areas for sectoral development are agriculture, retail, commerce and tourism – similar to Benalla (RC), with the general objectives to:

- *"Promote investment and business growth in retail, commerce, industry and agriculture through the balance of new and existing opportunities"*
- *"Further enhance the Rural City as the primary centre for timber processing, textiles and viticulture in North East Victoria"*
- *"Support and encourage tourism development"* (**Clause 21.05-3**)

Economic and tourism development policies and strategies for Wangaratta (RC) are examined in more detail in the following sections.

2.3 Various Economic Development Strategies

Benalla Economic Development Strategy

Due to the relatively short time since de-amalgamation of Delatite Shire and the creation of Rural City of Benalla, the Council has not yet been able to dedicate the resources to prepare an economic development strategy for the municipality.

Until 2004 there was a business and tourism association – Action Benalla – but this group disbanded, and new organisations to take over the role are still in their infancy. A Tourism Advisory Committee has been established (2005) but is also still in its infancy. There is no chamber of commerce as yet, but eight industry sector reference groups have been established (2005) to act as a forum for exchanging information and identifying current issues. The eight industries are: manufacturing, retail, agriculture, health and community services, education, construction, professional and public services, and tourism.

The Council encourages business development, marketing Benalla as one of the few locations where land is available for businesses which require large buffer zones at a competitive price (refer www.benalla.vic.gov.au). Council identifies investment opportunities in the following industries: manufacturing, horticulture, viticulture, timber, dairy, cropping and livestock. According to the Business Development Officer, there is also focus on population issues, particularly on attracting more young families to the municipality, as this is the group with the highest out-migration from the area (phone interview with Gerry Fitzpatrick, Business Development Officer, 22.7.05).

Wangaratta Economic Development Strategy 2005 - 2008

While Lake Mokoan is not located in the Rural City of Wangaratta, the future land use of the decommissioned lake has the potential to contribute to economic development in the municipality. In this section, we briefly review the economic development priorities for Rural City of Wangaratta to obtain an understanding of how various potential land uses would fit with the priorities in Wangaratta.

The strategy focuses on eight categories, namely:

- retail development
- business growth
- vocational training
- agribusiness
- industry/investment attraction
- distribution/logistics
- population growth
- rural/township/villages development

1. ***Retail development*** objectives focus on supporting the further development of a vibrant retail sector in Wangaratta, in particular through encouragement of marketing efforts of Business Wangaratta and in supporting the establishment of national homewares and hardwares stores.

2. ***Business growth*** objectives focus on sustainable growth and development of local enterprises through skills development and training at staff and management levels, including providing encouragement for the establishment of a business incubator and working with Provincial Victoria Program to identify new employment opportunities.

3. ***Vocational training*** objectives are partly covered under the business growth objective – the Council commits to pursuing the workforce development partly through the (possibly) establishment of an Australian Technical College and through facilitating more tailored workforce training to suit the educational needs of the local industry.

4. Sustainable growth is the objective for ***agribusiness*** in the municipality, and this will partly be pursued through an Agricultural Centre of Excellence, the establishment of a livestock processing facility, further investigating agribusiness opportunities identified through other studies and facilitating the investment into these (and other) agribusiness ventures.

5. ***Investment and industry attraction*** is facilitated through the development of industrial land and the actions supporting investment and industry attraction focus on site water supply, subdivision process and marketing of sites.

6. With regard to ***distribution/logistics*** side of economic development, facilitating both a road based (site identified at Wangaratta Aerodrome) and a rail based logistics centre are the top priorities, and the process for establishing such are well on the way.

7. A large ***population*** base supports a range of businesses and services and the economic development objective is to develop and implement strategies to continue to grow the municipality's population. Attracting skilled migrants is one avenue of growing the population (and attracting investment), another is to market Wangaratta to also attract domestic migrants, and to encourage former residents to return to Wangaratta.

8. The objective under the ***rural/township/villages development*** category is to also have some development dispersed municipal-wide through the implementation of priority projects in the Wangaratta to Mansfield Master Plan, the Glenrowan Master Plan and the Milawa/Oxley Master Plan. Securing funding for the Glenrowan Interpretative Centre is a high priority action.

Of these economic development priorities, objectives under category numbers 4, 7 and 8 are the most likely to be affected by the final land use. For example if the Lake Mokoan land is used for agriculture livestock could potentially be sent to a processing facility in Wangaratta, or the agribusiness ventures may draw on expertise from the proposed Agricultural Centre of Excellence (category 4). If, on the other hand, Lake Mokoan is subdivided into rural residential lots and these are taken up by new residents to the area, the population base of the wider region would increase and new residents might work and shop in Wangaratta (category 7). Tourism uses, particularly if connected to Ned Kelly history and lore, would supplement the planned Interpretative Centre at Glenrowan which will focus on Kelly gang history (category 8).

2.4 Agricultural Policies and Strategies

At state level, there are a number of agricultural policies and strategies which provide the framework for agricultural initiatives also in the North Eastern Region. The general focus of agricultural policies are on efficiency gains and sustainability. This is interpreted as maintaining or increasing output using new technologies which take the Australian environment into account and use fewer resources. There is particular emphasis on water savings as demand for water continues to increase on this very dry continent. This policy focus is evident, for example in funding for investigation and development of drought tolerant plants and fodder crops to replace current strains while reducing water requirements.

Our Rural Landscape

This policy was introduced in 2003 to cover the period until 2007. The initiative is funded by a $50 million allocation to implement a science-based program with emphasis on developing more environmentally sustainable farming systems to manage existing challenges, while taking advantage of new opportunities. The areas which will be targeted are to:

- enhance bio-security capabilities thus protecting existing markets;
- develop better strategies for industry to access new markets;
- assist industry to improve supply chain competitiveness;
- discover and implement new technologies and approaches to dramatically increase productivity;
- develop more environmentally sustainable farming systems;
- implement strategies for enhanced water-use efficiency and multi water-use systems; and
- disseminate new knowledge and tools for communities to be better equipped for change.

Note that implementing strategies for efficient water use drives the decommissioning of Lake Mokoan as a water storage facility.

The Ecologically Sustainable Agriculture Initiative is a result of implementing Our Rural Landscape policy and consists of eighteen projects about farming for the future. The projects explore new ways of protecting the environment while maintaining economic viability, and are aimed at encouraging productive and sustainable agriculture, focusing on biodiversity, greenhouse issues, environmental management, recycling and small farm enterprise issues.

Overall, the Living Together in Rural Victoria policy is about enlightening new residents to rural areas, particularly people from city areas who choose rural residential living for lifestyle purposes, to the obligations of owning rural properties and the realities of commercial farming enterprises (such as 24-hour or night-time harvesting and noisy crop-protecting devices). Successful implementation of the policy will ensure that commercial farmers can continue to develop and increase productivity by implementing innovative practices or changing the types of crops grown for a commercially feasible and competitive farming enterprise.

2.5 Tourism Policies and Strategies

North East Victoria Regional Tourism Development Plan 2004-2007

The North East Victoria Regional Tourism Development Plan 2004-2007 sets the development priorities for the North East region, which in tourism terms comprises the municipalities of Towong, Indigo, Alpine, Wangaratta, Benalla, Mansfield, Strathbogie and Murrindindi. The purpose of the regional tourism plan is provide tools to accelerate regional tourism development, given that tourism generates employment and is an important means of building communities in regional Victoria. The Plan underpins the directions and strategies outlined in Victoria's Tourism Industry Strategic Plan 2002-2006.

In the Plan, the primary tourism strengths for the North East region are identified as:

- Nature-based Activities
- Adventure
- Ski
- Food and Wine
- Touring

Secondary strengths are identified as Art and Cultural Heritage, and Backpackers.

Strategies identified in the Plan aim to build on the region's primary and secondary strengths and include: encourage backpacker product supplies; develop touring itineraries linking key destinations and villages; upgrade visitor service facilities and interpretation of key natural attractions; and develop adventure tourism business collectives and regional food and wine groups.

The main current tourism products for the North East Region, as identified in the Plan, include:

- **Ski-fields** for ski, adventure and nature based activities. The ski-fields are a level 1 destination.

- **High country** for adventure (rock climbing, horse riding, camping and hiking), food and wine (Alpine Valley wineries, Milawa cheese), arts and cultural heritage (art galleries at Bright, Ned Kelly product) and touring. The high country is classified a level 2 destination.

Benalla, Wangaratta, Mansfield, Rutherglen, Lake Eildon and Nagambie are level 3 destinations, which are "destinations that attract significant intrastate visitation and demonstrate potential interstate appeal, or are important touring and accommodation hubs" (p65). Glenrowan is identified as a Type B village, with product strengths derived from the wineries in the area (Food & Wine) and the Ned Kelly product (Cultural Heritage, Touring, Backpacker).

The Plan also identifies a number of issues with regard to product development in particular locations or sectors. For Lake Mokoan land, the most relevant identified gaps are: development of the touring product with the opportunity to use the Hume Corridor as a basis for touring; development of infrastructure in a number of areas, eg visitor services, tracks, trails and walks, directional signage and interpretation; and to capitalise on the Ned Kelly product.

Nature-based Tourism Strategy (State)

At state level, nature-based tourism is identified as a primary product segment which offer competitive positioning and high visitation and high yield with significant growth potential (refer *Victoria's Tourism Industry Strategic Plan 2002-2006*, p 94).

Nature-based tourism has been identified as a growing market segment, both at the state and national levels. At the state level, nature-based tourism is identified as one of 10 primary product segments where Victoria is competitively positioned, has high visitation and yield, and has significant growth potential.

Nature-based tourism is described "as the provision of a range of experiences associated with the natural environment, generally related to an outdoors type activity" (*Nature Based Tourism Plan 2001-2003*, Tourism Victoria). Nature-based tourism includes niche activities such as adventure tourism and eco-tourism. Adventure tourism is characterised by "a perceived element of risk and is physically or personally challenging to the participant", whereas eco-tourism focuses on education and interpretation of nature.

The National and International Visitor Surveys (NVS and IVS) provide an indication of the extent of nature-based tourism, through the enumeration of popular activities undertaken by visitors. For domestic overnight visitors in Victoria, approximately 26% and 21% respectively participated in outdoor eco-tourism or active outdoor/sport while on their trip in 2002 (note: respondents can have participated in both activities on the one trip). The participation rates in Victoria are the lowest in Australia, apart from ACT, which indicates an opportunity to improve marketing and provide access to the significant natural attractions that Victoria has to offer. Participation by day-trip visitors in outdoor eco-tourism and active outdoor/sport is 18% and 10% respectively, which shows that participation in these activities is much more likely to be by overnight visitors.

There is an opportunity for expanding nature-based tourism in the region, particularly eco-tourism with the reinstatement of the wetlands as a result of the decommissioning of Lake Mokoan.

Victoria's Food and Wine Tourism Plan 2004 - 2007 (State)

The food and wine tourist sector is one of Victoria's core tourism strengths, and one which is increasing in importance due to higher visitation and per visit expenditure. According to the Winemakers' Federation of Australia, wine tourism is defined as "visitation to wineries and wine regions to experience the unique qualities of contemporary Australian lifestyle associated with the enjoyment of wine at its source – including wine and food, landscape and cultural activities". In terms of BTR tourism research, however, wine tourists are defined as domestic visitors who visited a winery during their travel in Australia.

With the objective to increase yield (visitor numbers, length of stay and expenditure) from food and wine tourism the 2004 – 2007 tourism plan was launched to focus the efforts of the industry in achieving tourism and industry development.

Victoria has over 560 wineries in 22 defined wine regions. In north-east Victoria, significant strength in the food and wine sector is identified, particularly the areas of Rutherglen, King Valley and Milawa. According to the National Visitor Survey statistics from 2003, presented in the tourism plan, 50% of visitors to the north east Victoria region partake in food and wine activities. Tourism Victoria has identified an opportunity for boutique accommodation (in-vineyard) in the order of 10 – 15 rooms per development. Such infrastructure will support further growth in food and wine tourism in this region. The Goulburn River and Ranges Food Wine and Culture initiative is identified as the local marketing and development group and the North East Valleys Food and Wine Strategy is identified as the local cooperative marketing and development initiative.

2.6 Legislation for Fishing and Duck Hunting

Fishing and duck hunting are important current activities on the lake. To have an understanding of the legislative background for these activities, we briefly outline the licensing requirements for these activities.

Fishing

In Victoria, a Recreational Fishing License (RFL) is required for all forms of recreational fishing in all of Victoria's marine, estuarine and freshwaters. Those aged under 18 years of age and 70 years or over do not require a license, nor do Victorian Seniors Card holders, Veterans' Affairs Pensioner Card holders or Commonwealth Pension Concession Card holders (certain codes). Interstate and international visitors are required to purchase a license to fish in Victorian waters.

A license costs $5.50 for 48 hours, $11 for 28 days, and $22 for one year.

All RFL revenue is paid into the RFL Trust Account, which came into effect on 1 April 2001. On average, just over $3.8 million has been paid into this account each year (refer DPI website http://www.dpi.vic.gov.au).

Duck Hunting

Recreational duck hunting is permitted in Victoria with bag limits (number of ducks per outing) and season dates. The 2005 duck hunting season in Victoria commenced on Saturday March 19th and closed on 13th June. The bag limit for 2005 was five birds per day with an additional five wood ducks for each day of the opening weekend, wood ducks being relatively plentiful in Victoria.

A current Game Licence is required to hunt game in Victoria. "Game" includes those species of duck, deer, quail, pheasants and partridges declared to be game in Victoria. Before hunting game birds is permitted the applicant has to pass a Waterfowl Identification Test. Juniors (12 – 17 years) are also required to hold a current Game Licence – persons less than 12 years old are not permitted to hunt or take game. Pensioners and juniors are entitled to a 50% discount on the licence fee.

A range of licence types is available. The licence for game birds (including ducks) covers stubble quail, European quail, pheasants, partridges and eight species of waterfowl. Game Licence costs $41.90 for one year or part thereof. If deer hunting is included, the licence fee increases to $67 for one year.

According to RSPCA Victoria (refer Media Release of Wednesday 16 March 2005), the number of licensed duck hunters was 23,417 in 1997, but has since decreased to 17,609 in 2003. Note that RSPCA is opposed to duck hunting and has called for an immediate and permanent end to the sport.

2.7 Conclusion

The key findings from the section are as follows:

- For the agricultural sector, Council policies intend to support the diversification of the agricultural sector into viticulture and horticulture;

- Wangaratta is planning to establish an Agricultural Centre of Excellence at Wangaratta South;

- Both Councils support the expansion of timber plantations but such are likely to be concentrated mainly in the Wangaratta – Mansfield – Benalla triangle to east of Hume Highway;

- Manufacturing is an important industry sector for the economy with strong inter-sectoral links to the primary and tertiary sectors. Priority areas for development are the TFC, timber-related industries, agri-businesses, and heavy industries requiring a large buffer (for Benalla);

- Food processing is not a key priority area for Benalla or Wangaratta in view of the dominant role of Shepparton and Mooroopna in these industries. However, Council policies recognise the need to support and encourage ‘cottage’ industries as the links with Food and Wine Tourism are important, as are the opportunities for farm diversification; and

- Local Council policies support the development of the tourism industry, and in particular Arts and Cultural Heritage, Food and Wine Tourism and Nature-based Tourism. The Ned Kelly Touring Route and the revitalisation of Glenrowan township are some main actions to strengthen the tourism industry in this region.

3 LITERATURE REVIEW

3.1 Introduction

A considerable amount of work has been undertaken in regard to Lake Mokoan and the surrounding region, and this Chapter reviews these studies and draws out the relevant economic and tourism findings.

3.2 Studies about Lake Mokoan

The Lake Mokoan Study

This section provides a brief review of the economic and tourism aspects examined in the "Lake Mokoan Study" conducted by URS (2003 – 2004).

The Lake Mokoan Study was prepared subsequent to the completion of the study entitled "Water Savings in Bulk Water Systems in Northern Victoria" (SKM, 2002), which found that the greatest opportunity for saving water was associated with Lake Mokoan, and this would contribute towards achieving the State Government's commitment to reducing system losses by 25 per cent.

The Lake Mokoan Study is divided into three main stages: situation analysis; option assessment; and community response. The areas of relevance to this report are the findings in the situation analysis (Chapter 4) which relate to the economic importance of Lake Mokoan today, and the assessment of options for the use of Lake Mokoan post-decommissioning.

<u>Situation Analysis</u>

Lake Mokoan serves an economic role through direct diversions to surrounding farms for irrigated agriculture, stock and domestic purposes; recreational activity at the Lake by residents and tourists, and the flow-on impact on industries serving 'recreationists'; and it augments the supply of water for farming, domestic and commercial users in the Broken River, the Broken Creek and the lower Goulburn River.

The key findings are as follows:

- approximately 147 properties extract water from the Broken River (between Lake Nillahcootie and Shepparton) and the Broken Creek. Some of these properties are direct diverters from Lake Mokoan, whilst for the majority of others Lake Mokoan augments the supply from the wider Broken basin. The main categories of farm type are grazing (52%), combined cropping and grazing (29%); dairy (10%), and horticulture (9%);

- the estimated gross value of agricultural production of farms irrigated by Lake Mokoan either directly (direct diverters) or indirectly (irrigators from Broken basin) ranges from $26 million to $35 million per annum. Winegrape, stonefruit and dairy accounted for 94% of production value. Included in these figures is expenditure of $750,000 by the 22,500 visitors to local wineries;

- Whilst horticulture and dairy account for 19% of affected properties (and likely similar small share in land use) they account for 94% of the production value.

- recreational activities at Lake Mokoan attract 10,650 visitors days, of which a share would be residents from the surrounding region. The recreational activities include fishing (47% of total visitor days); duck hunting (24%); yachting (11%); day picnickers (15%); and water skiing (4%);

- estimated annual expenditure by ‘recreationists’ at Lake Mokoan is estimated to be between $340,000 and $696,000, with the mid-point at $519,000 pa. An unknown share of this expenditure would be captured locally by businesses in Benalla and Wangaratta;

- the annual net economic value of Lake Mokoan by ‘recreationists’ (ie their willingness to pay), is estimated to be between $238,000 and $697,000 with the mid-point at $460,000 pa.

<u>Options Analysis</u>

The Lake Mokoan Study considered a number of options for Lake Mokoan and examined six options in more detail. The six options were assessed according to the impact on established environmental, economic and social criteria.

In order to provide a comparison between potential agriculture and agroforestry uses for the reclaimed land, a range of uses were examined (establishment, operating costs, revenue) and a measure of the gross margin ($/ha) for each use was estimated. The results showed that some agriculture land use regimes (livestock and dryland cropping enterprises) and some agroforestry regimes (ironbark and sugar gum) would be potentially profitable at a 4% discount rate, but all except large scale agricultural production would be unprofitable at an 8% discount rate.

The option analysis indicated that Option 1 provides the best net present value.

Option 1 is the decommissioning of Lake Mokoan to re-establish Winton Swamp. This involves draining of the lake, fixing the outlet gaps open, revegetating and rehabilitating the drained lake area, and this would result in approximately 4,780 ha (Lake Mokoan Study p 4-3) becoming available for commercial uses and the creation of another 3120 ha of wetlands and wetland buffers.

<u>Consultation</u>

Public consultation was conducted throughout the Lake Mokoan Study, and 55 submissions were made.

Lake Mokoan Economic Contribution Study

This section provides a brief review of the findings of the study, “Lake Mokoan – Its Contribution to Delatite Shire’s Economy” by Linqage International (December 2001).

The report outlines the actual and potential economic impacts on the economy of Delatite Shire (and wider afield) as a result of decommissioning the lake. The sectors which will be directly affected, according to the study, are mainly recreation and tourism sectors, namely fishing, hunting, sailing, waterskiing and tourism, plus one-off losses in land valuations. Council rates losses, due to reduced land valuations, are identified as a ‘sector impact’. Direct economic impacts of $555,600 pa are identified, plus one-off losses in land valuations of $5 million.

Indirect economic impacts are identified through use of an expenditure multiplier of 4 (for every one dollar spent, another three dollars in are generated). Through this multiplier, indirect impacts of $1.67 million are identified.

Other impacts are also identified, although these impacts are noted as possible impacts which depend on a range of outcomes, whereas the above direct and indirect impacts are certain. Amenity impacts of 10,220 recreational days lost are identified (lost fishing, sailing, caravan day stays, etc), high intensity agriculture is identified as being put at risk to the tune of $50 million (direct) and $150 million (indirect) of losses to the local economy. The habitat loss for fish and water birds is noted. In particular, the habitat destruction for the white-bellied sea eagle (seen to be nesting in the area) is noted as adding to the destruction of this listed species.

In all, the study does not take potential benefits of the decommissioning of the lake into account. There is no mention of the benefits in short-term jobs through the construction work on decommissioning the lake and establishing wetlands, and the possibility of continued and perhaps increased duck hunting on the wetlands is not taken into account and the business this would generate locally, for example for the caravan park and local businesses. The multiplier effects identified also appear to be high (we assume they are for Delatite Shire as the aim of the study is to identify impacts on Delatite Shire's economy) – similar employment multipliers based on ABS's input-output analysis identifies employment multipliers ranging from 2.27 (Accommodation, cafes and restaurants) to 2.54 (Sport, gambling, etc) for industries which the sectors mentioned in the study would apply.

3.3 Planning-related Studies

Benalla Rural Living Strategic Study

This section provides a brief review of the demand and supply factors and other relevant factors examined in the "Rural Living Strategic Study" prepared by Habitat Planning (June 2004).

The study was commissioned by the former Delatite Shire with the objective to provide a strategic planning framework for rural living in Benalla and also to provide direction for managing future rural living development. Due to de-amalgamation during the study period, the study was instead presented to the Benalla Council.

In this study, the planning context is provided through the presentation of relevant planning policies and strategies found at state, regional and local level. At state level the listed policies are the State Planning Policy Framework, Ministerial Direction № 6 – Rural Residential Development, proposed new zones for rural Victoria, and State Environment Protection Policy for Waters of Victoria. At regional level, the listed relevant policies are Melbourne 2030, Goulburn Broken Regional Catchment Strategy and Goulburn Broken Native Vegetation Plan 2000. At local level, the listed policies include the Municipal Strategic Statement, Your Town - Your Future Strategy Plan, various zone requirements and relevant overlays. Of particular relevance is the strategy embodied in the Your Town – Your Future Strategy Plan (2004) that rural living is a legitimate land use and an important part of the economy and that 20 years' supply of rural living land should be on hand.

The principles for establishing rural living zones and the development controls which may be useful in these zones are also examined. Of particular relevance are the principles that rural living is generally preferred in areas which are not rated as high quality agricultural land, will not detrimentally impact on water quality, are serviced with sealed roads, are adjacent or in close proximity to urban areas, and are part of a 10 to 15 year supply of land for this purpose (5 of a total of 13 principles – refer p18).

Demand and supply of land for rural living is also examined. Estimates of demand are based on subdivision approvals, dwelling approvals, sales and anecdotal evidence from Real Estate Agents, with most emphasis given to dwelling approvals which provide a clear picture of the actual take up rate of land for rural living. Long term demand is estimated at approximately 15 lots per annum, with the rider that current demand appears to be significantly higher at 27 lots per annum (p21).

Estimates of supply are based on existing vacant lots, future potential vacant lots, and consideration of the possibility for subdividing some existing lots in rural living zones (RLZ and LDRZ). Based on demand of 15 lots per annum, supply of vacant rural living lots (both RLZ and LDRZ) would be exhausted in around six years. However, if potential subdivisions are taken into account supply of vacant lots is around 60 years. It is estimated that actual supply of rural living land is around 20 years.

The report analyses the supply situation area by area. Seven areas are defined, namely West, South, East and North Benalla, Baddaginnie, Chesney Vale and Lima East. Chesney Vale is the rural living area located in Lake Mokoan Road on the northern shore of the lake. This area is partly developed for rural living (32 lots subdivided with most ranging from 0.3ha to 0.6ha). More than 60% of the lots (19 lots) were vacant at the time of the report (June 2004). Additional land is available with a balance lot of 75ha, but at the current minimum of 8ha/lot this lot would only yield eight lots according to the report (p34). In the report, Habitat Planning recommends that existing RLZ land at Chesney Vale be transferred to RLZ1 to recognise the original plans for the development – this zoning would allow the balance lot of 75ha to be subdivided into minimum 2ha lots and thereby deliver an additional 37 rural living lots at Chesney Vale, bringing total supply up to 56 lots.

Specific recommendations are made for each of the seven defined areas but, overall, based on the findings of the study, Habitat Planning concludes that no major changes to the provision of rural living in the municipality are needed at this point (p36), and efforts should be focused on small adjustments within the already established areas.

It is unlikely that major changes have happened in the 12 months since the report was released and that supply of rural living lots in Rural City of Benalla is still sufficient.

3.4 Tourism-related Studies

Leadership in Tourism

In June 2004, a regional tourism development workshop was held in Benalla by The Centre in conjunction with Benalla Rural City Council. The workshop was funded by Regional Development Victoria under the Business Capacity Rebuilding Program. Staff from the Regional Development Company Pty Ltd facilitated the workshop and prepared a workshop outcomes report “Leadership in Tourism – Beyond The Talking”. The outcomes of the workshop are relevant to the Lake Mokoan decommissioning project in that tourism is one of the potential land uses. An examination of the ability of the local community (individuals and businesses) to establish and develop tourist businesses would therefore be an important aspect of the potential success of any tourism ventures centred around the decommissioned lake.

Apart from the invited speakers and the organisers, twenty six tourism operators from the municipality participated in the workshop.

The aim of the workshop was to encourage tourism in Benalla through a process of identifying impediments and actions to progress leadership and development of tourism, and to identify how to move forward through the development of a Benalla Tourism Board or group. External events such as drought and bushfires, the demise of Action Benalla and the de-amalgamation of Delatite Shire have all had an impact on tourism (some negative, but some positive). However, the de-commissioning of Lake Mokoan was recognised as providing potential to develop the site into a unique wetland for Victoria which would attract other recreational users to the area. The participants agreed on the need to identify a tourism-specific ‘statement of uniqueness’ for Benalla and the need for collective marketing of tourism in the area.

An important outcome of the workshop was the undertaking by the tourism operators to establish a tourism group, and a second workshop was planned to be convened in July 2004 for the purpose of deciding its structure, how the group operates, etc.

We note that tourism planning workshops were convened in July and August 2005, and that a tourism committee has now been established.

Ned Kelly Interpretative Trail and Touring Route Study (2004)

This study was carried out in two sections: part A is a Scoping Study and Strategy Report and part B is the implementation plan. The study was undertaken by Quercus Marketing in collaboration with six ‘Kelly’ related municipalities.

The objectives of the Kelly Touring Route are:

1. To increase visitation and tourism yields through exploiting the high levels of awareness and interest surrounding the Kelly phenomena

2. To increase dispersion of through traffic off the Hume Highway into off-highway towns and villages

3. To create additional employment and job creation in small towns and regional centres

Towns and key sites included in the touring route are Avenel, Euroa, Benalla, Mansfield, Stringybark Creek, Powers Lookout, Glenrowan, Beechworth, the Old Melbourne Goal and Jerilderie in NSW. Each site has differing levels of Kelly-related attractions and collateral (marketing, signage, brochures), but to date there has been no co-ordinated effort to bring together the various locations and stories of the Kelly era as a cohesive and appealing tourism strategy (Part A, p5). Therefore, a large part of the project is about developing matching marketing material, brochures and information, signage and other infrastructure.

The study notes that Benalla (RC) was the centre of much Kelly clan activity: births, deaths and court cases, and in this respect Benalla should adopt and promote a ‘hometown of Ned Kelly’ storyline. As a secondary theme, the study notes that Benalla should highlight the cultural elements of the Kelly story through the Benalla Art Gallery and the new auditorium (p29).

Benalla (RC) has a number of sites that will form part of the touring route: Stringybark Creek in Toombullup State Forest; Green sash at Benalla Costume and Pioneer Museum; Graves at Benalla Cemetery; Old Courthouse and holding cell; Bootmaker & Saddler’s Shop; Commercial Hotel; and Benalla Regional Art Gallery.

Glenrowan will position itself as the ‘heart’ of the Kelly story, with the State government announcing $1.8 m in funding for implementation. The nearby Warby Ranges is a significant aboriginal site and is likely to have been used as a lookout by the Kelly gang. Although the Warby Ranges site is not of significant importance to the Kelly story, opportunity exists to develop the aboriginal story and provide interpretive material at the summit.

The Kelly Touring Route project is planned to be launched in late 2005.

3.5 Studies on the Forestry Industry

The Timber Industry in North East Victoria – An Economic Assessment

The "Lake Mokoan Study" prepared by URS found that at a 4% discount rate, the Lake Mokoan study area could accommodate Sugar Gum plantations and Box Iron Bark species. Softwood plantations were found to be unviable at both a 4% and 8% discount rate.

Expanding the area of plantations is a policy direction of Federal, State and Territory Governments. In 1997 governments joined with industry in adopting the *Plantations for Australia: 2020 Vision* which aims to treble Australia's plantation estate by the year 2020 by attracting private investment for plantation expansion. The *2020 Vision* does not set regional targets for plantation expansion.

Plantations North East Inc. (PNE) is a Regional Plantation Committee established in 1996 to promote and facilitate the expansion and development of commercial timber plantations and associated industries, in order to meet national and state targets of timber production. PNE is jointly funded by Commonwealth and State Governments and presides over the municipalities of Towong, Wodonga, Indigo, Alpine, Delatite (now Mansfield and Benalla), Wangaratta, Strathbogie, Murrindindi, Mitchell, Shepparton, Moira and Campaspe.

This study, "The Timber Industry in North East Victoria – An Economic Assessment"*,* was prepared in May 2002 by Prospect Consultations for PNE. The purpose of the study was to "accurately quantify the economic and social benefit of the timber industry in north-east Victoria, and prepare a communication package to communicate the benefits of the industry to relevant stakeholders" (Prospect Study, p9). The study does not specifically examine the feasibility for plantation expansion in the north-east.

The north-east supports extensive areas of softwood plantation and native forest, and to smaller area of hardwood plantation. A recent inventory identified approximately 64,500 ha of softwood plantations in the north-east region, mostly radiata pine, and 3,270 ha of hardwood plantations. The majority of softwood plantations (70% of total area) are in Alpine, Delatite (parts east of the Hume,), and Towong Shires. There is virtually no softwood plantation in the drier north and north-western parts of the region, which includes the Lake Mokoan region (p16).

Most softwood planting was carried out by the State Government during the 1900s to 1930s, and then from 1962 to 1990. Since 1990 the expansion of softwood plantations has ceased due to the withdrawal of government financial incentives, and the establishment of plantations closer to port facilities. Increases in log production over the last decade have come from improvements in technology, and not from expansion of planted area.

In terms of hardwood, the study notes the findings from a previous study by Wareing and Baker (1998) which concluded that approximately 290,000 ha of cleared land in the north-east region was suitable for plantations, however, only 10,000 ha would be suitable for hardwood plantations (p71). Given the low rates of expansion levels during the 1990s by the private sector, the authors note that these estimates for softwood are extremely high, and probably conservatively low for hardwood. Potential locations for hardwood plantations are not identified in the study.

Box-Ironbark Forests and Woodlands Investigation

In June 2001 Environment Conservation Council published their final report on the Box-Ironbark investigation. Box-Ironbark ecosystems were widespread in northern Victoria at the time of European settlement, but these have been extensively cleared to make way for other land uses. The investigation and resulting report was commissioned by the Victorian Government in order to 'identify and evaluate the extent, condition, values and uses of the Box-Ironbark forests and woodland areas in northern Victoria' and 'make recommendations on the balanced use of these areas' having regard to the economic and social aspects of the current and future land use and criteria for establishing adequate and representatives reserves (refer page xi of Executive Summary of Final Report).

The study area for the investigation encompasses the region around Lake Mokoan and Lake Mokoan itself.

While the study makes recommendations about establishing reserves and reference areas of ecological value, regional and state parks, etc. Lake Mokoan is mentioned primarily in its role as a water body which has some recreational value and provides storage of water for irrigation purposes.

Lake Mokoan is specifically mentioned in Chapter 18 – Other Public Land Use Categories in section I, which begins on p 247 of the report and concerns water production. In Section I3 Lake Mokoan is identified (together with Waranga Basin) as off stream storages which provide water supply for irrigation and/or stock and domestic use. The recommendations are unclear but appear to be that these water storage areas continue to be used for water supply purposes (ie are not needed as wildlife corridors, reserves, etc), that special features listed are protected and that they remain under their existing tenure and control (ie do not need to be moved to Park Victoria administration, etc). There are no values listed for Lake Mokoan that need to be preserved, but for Waranga Basin and Western Channel there are recorded/listed heritage, social, natural and/or historic community values.

3.6 Conclusion

The literature review shows that some research has already been undertaken which is relevant to the potential use of the decommissioned land. Security of water supply emerges as a primary economic factor as the value of irrigated farming downstream from Lake Mokoan is high.

Potential loss in capital values of land surrounding the lake is also an important economic driver – although there may similarly be potential gains to be made in property values through the decommissioning process. A final land use, which is visually pleasing, might offset the predicted losses in land prices around the lake, eg if the wetlands have a high scenic value.

The estimated annual expenditure by 'recreationists' at Lake Mokoan is estimated to range between $340,000 and $696,000 (excluding wine tourists). Of this, only the expenditure as a result of duck hunting, wine tourists, and perhaps picnickers is likely to continue. Duck hunters contribute an estimated expenditure of $186,000 pa, while picnicking contributes some $68,000 in expenditure. An unknown share of this expenditure would be captured locally by businesses in Benalla and Wangaratta. Further study would be necessary to assess whether duck hunting has the potential to expand following decommissioning.

Agriculture has been identified as a potentially profitable land use, as has hardwood forestry, albeit less profitable than agriculture. There do not appear to be any 'reservations' on the use of Lake Mokoan as an outcome of the Box-Ironbark Forests & Woodlands Investigation.

Subdivision into rural living lots does not appear to be supported by the recent study into the demand and supply of rural living land in Rural City of Benalla. This study concludes with assessing supply in the municipality at around 20 years – sufficient and in line with Council's planning strategies which suggest there should be supply for 10 to 20 years on hand.

Tourism and recreational purposes have the potential to continue as land uses after the decommissioning. The most significant tourism development for the region is the Kelly Touring Route (to be launched late 2005) and the revitalisation of Glenrowan township to include an interpretative centre for the Kelly story and re-development of the 'siege' site. The implications of these proposed projects for Lake Mokoan include the ability for any tourism element of Lake Mokoan to leverage off proposed attractions at Glenrowan and the Ned Kelly touring route. This could be through physical links (bicycle / pedestrian trails).

4 OPPORTUNITIES AND CONSTRAINTS

4.1 Introduction

In this Chapter we explore some of the issues which have emerged through review and consultation, including opportunities that have emerged for the land use at Lake Mokoan and what constraints to land use that have been identified.

4.2 Attributes

Strengths

A number of strengths of the Lake Mokoan site and the wider study area have been identified.

For the lake site in particular, important strengths from an economic development perspective include the site's accessibility via a road network, proximity to attractions (eg Winton Raceway and Glenrowan wineries) and urban centres, visibility from the Hume Highway and a suitable distance from Melbourne (2 hours) for breaking a trip to Albury-Wodonga or beyond. Another positive attribute is the indigenous cultural connection evidenced by scar trees and artefacts. From an economic development perspective, other important attributes are the good access to servicing infrastructure and the availability of a large tract of land – the latter would facilitate development of projects which are land hungry and which otherwise may be difficult to implement due to fractured ownership in otherwise suitable locations.

In the wider area, particular strengths include temperate climate, landscape and scenic values (Warby Ranges), Ned Kelly historic connection for tourism purposes, local interest in conservation values and indigenous cultural heritage, good soils to support viticulture and stone fruit, and diversified economic activity including agriculture, forestry, manufacturing, retail and service industries and tourism.

Weaknesses

In respect of economic development, the weaknesses associated with the lake site include low population levels and an ageing population, the broad landscape features around the lake are relatively undifferentiated from other areas, uncertainty surrounds the issue of future water supply for agricultural ventures, and there is a relatively low level of local entrepreneurship to drive new ventures. The lake also lacks a clear historic connection with the Kelly Gang (although some research indicates that there was a Kelly Gang hideout in the old Winton Swamp), and its general appearance is not attractive (dead trees or 'stags', low water levels, cloudy brown water as a result of low water quality).

The existing infrastructure of inlet and outlet channels and their associated equipment can be regarded both as a strength and a weakness, depending on the final land use option of the site. There is potential for these channels to act as safe conduits or corridors for pedestrian, bicycle and equestrian traffic to and from Benalla to the lake area, but decommissioning of the equipment and infill of channels can prove a costly exercise.

Suitable land use proposals will naturally take into account the site attributes to ensure that the options reflect the natural advantages offered by the site and consider the weaknesses or limitations of the study area.

4.3 Opportunities

Current Initiatives and Developments

There are a number of current and proposed initiatives and developments that will influence future economic and tourism development in the study region. These include the following:

Tourism

- Kelly Story Centre Glenrowan – a Master Plan has been completed to revitalise Glenrowan's main street and the Kelly Siege Precinct. State funding has been secured. Need updated status from Council, particularly regarding forecast visitation.
- Ned Kelly Touring Route – to be completed in late 2005. The touring route includes a number of sites surrounding Lake Mokoan. Need updated status from Council.
- The Benalla Rose festival has changed organisers and is planned to be reinvigorated. More details required on the future of the Rose Festival. Need updated status from Council.
- Implement the King Valley Master Plan (by 2025)
- Complete the Master Plan for Milawa and Oxley (by 2006)

Agriculture

- Establish an Agricultural Centre of Excellence at South Wangaratta (by 2015)

Sport

- Implement the *Cycle to the Future – Rural Bicycle Strategy* (Wangaratta)
- Investigate the development of a Regional Sports Academy affiliated with the Victorian Institute of Sport and education providers (completed)
- Complete Equestrian facilities as part of the Agricultural Centre of Excellence (2010)

Infrastructure

- Create a rail-based regional distribution centre at South Wangaratta (by 2010)
- Create a road-based logistics centre at Wangaratta Aerodrome (by 2008)

There may be other developments planned, which we will expand upon as details emerge.

Proposed Opportunities for Land Use at the Site

Proposed development opportunities for the lake site can be largely grouped into tourism and recreation, agriculture, forestry and residential purposes.

Tourism and recreation options included the following:

- significant wetland development and eco-tourism attraction with boardwalks, birdhides, visitor accommodation and information, bird identification signs and interpretation

- golf resort development with associated visitor accommodation
- maintain a 2kmx2kmx2km triangle open water course for yatchsmen
- maintain duck shooting and fishing
- visitor accommodation option to cater for peak demand from visitors at Winton Raceway events
- aboriginal culture and lifestyle interpretation attraction (large scale to demonstrate nomadic habits)
- system of pathways and trails for pedestrians, bicycles, equestrian and some for vehicular use linked to touring networks and townships/attractions and providing an alternative route to the Hume Highway

<u>Agriculture options</u>

Few proposals were put forward for agriculture options, in part because of the transitional challenges farming is facing with a reduction in availability of water as an input into farming and the lack of young people interested in pursuing a career in farming. The success of any agricultural pursuits would also depend on the state of the soils underneath the waterbody and questions were raised regarding silt on the lake bed and topsoil erosion, based largely on the appearance of the now exposed areas of the lake bed.

Local farmers with holdings adjacent to the lake expressed an interest in purchasing land to supplement their holdings and to ‘square off’ their paddocks where they previously had been reduced as a result of creating Lake Mokoan.

Prior to creating Lake Mokoan, parts of the land were suitable for horticulture and viticulture, but future limits on water supply for irrigation purposes could reduce the viability of such enterprises using current technology.

<u>Forestry</u>

No specific proposals were put forward for farm forestry, but there appeared to be a general consensus within the community that parts of the site would be used for farm forestry (native hardwood species). The opportunities for farm forestry will need to be assessed further and interested parties identified.

<u>Residential Purposes</u>

As with forestry, there were few specific proposals regarding residential purposes – the suggestions for dwellings are connected to visitor accommodation developments rather than residential or rural residential development as such. There appears to be consensus that there is demand for rural residential land for the next 15 years or so that can be filled with existing supply.

4.4 Constraints

A number of constraints to successful development were highlighted and some of these constraints are mentioned in connection with the development options above; for example, the questionable lake-bed land quality post-decommissioning which can affect the success of agricultural purposes.

A major constraint which emerged is the cost of decommissioning the lake infrastructure, the rehabilitation and of developing the wetlands and associated tourism/recreational infrastructure, eg boardwalks, touring routes and access corridors from Benalla and to Glenrowan. High development costs for private enterprise were also raised, including costs for fencing re-establishment, visitor accommodation development and golf resort development.

Future management of the site also emerged as a major issue. Surrounding residents and farmers mentioned rubbish, weed infestation and control, vermin infestation and control, fire hazard and flood risk as areas needing further consideration, both during the decommissioning process (estimated to take approximately 15 years) and subsequently when the site is used for a new purpose.

4.5 Conclusion

The economic drivers for land use following the decommissioning of the lake appear to be relatively weak, with no clear activity indicating if land is in strong demand. However, the substantial size of the site does enable a scale of operation which may render activities with significant economies of scale (eg farm forestry) financially viable on this site.

In developing assessment criteria for options analysis, site size requirement is likely to feature prominently, as will uses which are sensitive to community and stakeholder preferences. If the site is not used for a singular purpose, then the end use is likely to be a combination of land uses which satisfies the various stakeholders and generates the best outcome in both economic and community terms. The end use is likely to be one, of or a combination of, the following:

- **Agriculture** – shows the best returns according to the Lake Mokoan Study. Would need to investigate the level of interest in investing in land at Lake Mokoan for agricultural pursuits and whether lake bed rehabilitation can be completed to a satisfactory level for agricultural purposes.

- **Forestry** – shows positive returns for hard wood plantations, but development of new plantation has stalled in the North East region lately. Would need to investigate if there is interest in purchasing land for forestry pursuits.

- **Tourism** – the development of Ramsar wetlands at Lake Mokoan, the potential for extensive trail networks through the decommissioned lake area, a connection with Ned Kelly (lore has it that the Kelly gang had a hideout on an island at Winton Swamp) or with aboriginal heritage and, significantly, proximity to the Winton Raceway offers tourism potential eg 4-wheel drive track, dirt bike track and visitor accommodation. New attractions at Lake Mokoan would complement the attractions at Benalla and Glenrowan (and should be of interest to both Benalla and Wangaratta Councils).

- **Recreation** – the development of Ramsar wetlands, the potential for extensive trail networks for walking, bicycling or horseback riding, possibly also some sailing and fishing (if there are large water bodies left after decommissioning) would provide good recreational opportunities at Lake Mokoan. This might be a long term factor in attracting young families to the area.

- **Residential** – little demand for rural residential but some lots could be created. Such lots would be more attractive if the recreational/tourism aspects are developed.

5 APPENDIX

Table 5.1: Population Trends and Forecasts, 1991 to 2031

Year	Benalla (S) - Benalla	Benalla (S) - Bal	Wangaratta (RC) – Central	Wangaratta (RC) - North	Wangaratta (RC) - South	Total Study Region	*Regional Victoria*
Estimated Resident Population							
1991	8,950	4,710	16,360	3,560	6,060	**39,640**	*1,264,800*
1996	9,030	4,770	16,240	3,900	5,900	**39,840**	*1,276,880*
2001	9,180	4,838	16,410	4,460	5,800	**40,688**	*1,333,100*
2004	9,210	4,860	16,350	4,560	5,740	**40,720**	*1,372,700*
2011	9,510	4,990	16,750	5,070	5,520	**41,840**	*1,458,880*
2021	9,510	4,990	17,200	5,810	5,130	**42,640**	*1,576,810*
2031	10,290	5,310	17,710	6,490	4,730	**44,530**	*1,689,590*
Average Annual Growth Rates							
1991-2001	0.3%	0.3%	0.0%	2.3%	-0.4%	**0.3%**	*0.5%*
2001-2004	0.1%	0.2%	-0.1%	0.7%	-0.3%	**0.0%**	*1.0%*
2004-2011	0.5%	0.4%	0.3%	1.5%	-0.6%	**0.4%**	*0.9%*
2011-2031	**0.4%**	**0.3%**	**0.3%**	**1.2%**	**-0.8%**	0.3%	***0.7%***

Source: ABS Regional Population Growth (Cat no. 3218.0), Department of Sustainability and Environment "Victoria in Future 2004' and Essential Economics Pty Ltd

Note: The Statistical Local Areas (SLAs) of Benalla (S) - Benalla and Benalla (S) – Bal changed in 2004, as a result the ERPs recorded in ABS publications for each SLA changed (Benalla (S) – Benalla grew by approximately 370, and Benalla (S) – Bal fell by 370). The figures in the above table are based on the original boundaries for the purpose of continuity.