SOCIAL ASSESSMENT REPORT

December 1999

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Over the past decade, there has been a growing awareness by government, industry and the community of the importance of considering the social implications of decisions. Social assessment is a tool used to predict the future effects of policy decisions upon people, their physical and psychological health, well-being and welfare, their traditions, lifestyles, institutions and interpersonal relationships (D'Amore 1978).

A social assessment provides a 'snapshot' of the people and communities that may be affected by planning and policy decisions. Detailed information is collected on the social and biophysical environment, the historical background of an area and its response to change, contemporary issues, political and social structures, culture, attitudes, social-psychological conditions, community vitality and population statistics. This information is then used to predict the likely impacts, both positive and negative, which may be experienced by individuals and groups within the community and to determine ways in which such impacts may be managed. As Armour (1990) has outlined, such impacts may include changes that occur in:

- people's way of life (how they live, work, play and interact with one another on a day-to-day basis);
- their culture (shared beliefs, customs and values); and/or
- their community (its cohesion, stability, character, services and facilities).

Social assessment is also a mechanism that facilitates stakeholder and community participation in a decision-making process. Through participatory techniques such as workshops and public meetings, people can become involved in the collection of social information relating to their area. This information is considered critical in the social assessment process, as people who may be directly affected by a particular policy proposal are in the best position to say how such events are experienced.

Information collected in the assessment phase may be used as a platform from which impact predictions can be made during the integration phase of the Regional Forest Agreement process.

A variety of data collection methods and data sources have been used as part of the West social assessment to strengthen the study design and validate the results. The methods included documentary analysis, secondary statistical analysis, mail and telephone surveys, personal interviews, participant observation, informal networking and workshop techniques.

Information gained from the various study methods showed that the West region can be divided into distinct regional groupings or clustering of towns. The geographic clustering of towns is known as 'town resource clusters' (TRCs). The four TRCs consist of Midlands, Otway, Portland and Horsham. The regional profile, and the analysis of the mail and telephone surveys are based on these TRC regions. Mail surveys were distributed to forest contractors, timber processing industries, forest user businesses (eg apiarists, seed collectors, graziers, firewood collectors, prospectors and miners), and tourism operators. A total of 813 surveys were distributed to businesses with an overall response rate of approximately 20.3 per cent (variations were evident across different forest user groups). Separate questionnaires were distributed to the employees of these businesses. A total of around 3104 surveys were administrated, with a response rate of 10.7 per cent.

The community telephone survey undertaken as part of the social assessment work was based on a sample size of 813 households. The telephone survey was stratified over the four TRCs located within the West region.

More detailed assessment work was undertaken in a series of case studies covering six communities across the region: Apollo Bay, Colac, Ballarat, Daylesford, Dunkeld and Heywood. These communities differed in terms of their population size, dependence on forest uses and values, diversity of the local economy and geographic location.

Social and economic profile

In 1996, the total population of the West region was 570 188 persons, with a 15 per cent increase in the population of the West region between 1986 and 1996. There has been a proportionately bigger increase in the number of residents over 40 years of age, and some decline in the number of younger families and younger residents within the region.

The percentage of residents born overseas was slightly higher (13 per cent) than the average in rural Victoria (10 per cent). Some variation was also found across sub-regions, with the Midlands TRC having 16 per cent of residents born overseas and the Horsham TRC having comparatively fewer residents born overseas (5 per cent).

The main employment in the West region occurred in industries associated with manufacturing and retail trade. Although employment in the agriculture, forestry and fishing sector was lower in the West region (8.4 per cent) when compared to rural Victoria (13.1 per cent) there was significant variation in employment in this industry sector across the four TRCs. The Otway (29 per cent), Portland TRC (19 per cent), and Horsham (16 per cent) TRCs had the highest levels of employment within this industry sector, while the Midlands TRC (4 per cent) had the lowest level of employment in this industry sector.

There has been some decline within the West region during the last 10 years in the number of residents attending pre-primary, primary and secondary educational institutions, and there has been an increase in the number of residents attending TAFE and universities.

The unemployment rate within the West region has increased from 7 per cent in 1986 to 9.7 per cent in 1996. The rate in 1996 was a similar to that found in rural Victoria. Across each of the four TRCs the unemployment rate varied from 7.3 per cent in the Otway and 7.6 per cent in the Horsham TRC, to 9.4 per cent in the Portland, and 9.5 per cent in the Midlands TRCs.

Changes in forest land use

In the West region, changes in both Federal and State government policies have required some readjustment of the management of forest resources with subsequent implications for communities in the region. The continual updating of information concerning forest production, conservation, recreation, water, historic and cultural heritage, and social values, and the need to balance the provision of these uses and values in management, has provided the impetus for policy change. In Victoria key policy changes have resulted from:

- Victoria's Timber Industry Strategy (1986);
- Code of Forest Practices (1989, 1996);
- State Plantations Impact Study (1990);
- National Forest Policy Statement (1992); and
- numerous studies by the former Land Conservation Council (LCC).

In the 1970s, 1980s and 1990s, the LCC conducted a series of land use studies in the West. These studies included regional investigations and statewide theme investigations such as wilderness. Each study considered the full range of values and uses on public land in the region, including assessment of socio-economic impacts.

The LCC collected a large volume of social and economic information on a range of values and uses in the West and took this into account in making its recommendations in the various studies. This information was also used to minimise the social and economic impacts of various recommendations on individual enterprises and local communities.

The delineation of boundaries for conservation reserves of various kinds has also been undertaken to ensure the protection of significant values while aiming to minimise any adverse impacts on other uses and values.

Stakeholder views

In recent years, there has been a growing interest in forest issues and a considerable increase in the number of groups wishing to influence forest use and management. These groups often bring quite different perspectives and values to particular issues. Often it is those groups in close proximity to the forest, those with pre-existing rights, local knowledge and high dependency that have less power or influence in the forest debate (Colfer 1995). An analysis of the main issues and the response of different stakeholder groups is useful in predicting how individuals and groups may respond to different policy alternatives. The views presented below have been synthesised following a theme analysis of qualitative data. The views of the Aboriginal communities were obtained through six workshops organised by the Environment Forest Taskforce and Aboriginal Affairs Victoria, as part of the first stage of the RFA Aboriginal heritage consultation program.

Timber industry

Issues raised by these groups related predominantly to access to the forest and resource security. In the past, they have been affected by reductions in resource, affecting their financial situation and employment stability. Those involved sought better public education on the timber industry. They expressed the desire for long-term planning in harvesting operations to allow them to pursue new business and market opportunities and facilitate job creation. There was also a desire to achieve a balanced outcome on forest use, based on scientific facts.

Tourism, recreation and outdoor education

Tour operators believe there should be recognition of the importance of forests for recreation. They felt that tracks and trails were not being maintained and that links between trails needed to be created to establish a useful network. Operators were concerned about some forest management practices, particularly the visual impact of clearfell harvesting on their operations. There was support for increased investment in plantations and agroforestry. Access was identified as an issue and the need to be informed about harvesting and forestry activities, which may restrict access to public forests. There was a desire to have greater involvement in the management of forests by user businesses. Opportunities related to the development of sustainable, low-impact, eco-tourism to provide regional employment opportunities in the West area.

Conservation

Conservationists expressed concern about whether their requirements would be met under an RFA. They expressed a desire for more areas, especially water catchment areas, to be placed in National Parks and State parks and reserves. Stakeholders raised issues in relation to loss of biodiversity, wilderness and old growth values, water quality and sustainable yield. They were also concerned about particular forest management practices and their impact on the environment. They were also keen to see local knowledge used in the management of forests. Major opportunities included expansion of nature based tourism to support other regional economic developments.

Other forest uses (seed, firewood and craftwood collection)

Those involved in forest uses other than timber harvesting, questioned particular management practices in relation to their business. Concerns were also expressed in regard to changes in Government policy and the need for all forest uses to be fully considered. Need to improve access to forest produces and the availability of long-term licenses for seed, firewood and craftwood collection. There was a desire to increase understanding for their products in the management of forest. Opportunities lie in continued multiple use of forest areas, access to waste wood after harvesting and the ability to cut dry wood.

Apiculture

Apiarists perceive a loss of access to hive sites when forest areas are reserved in parks. They maintain that apiculture has little or low impact on forests or other recreational activities. Apiarists believe that harvesting and fuel reduction burns affect honey and pollination, although selective harvesting enables better retention of mature trees need for honey. Concern was also expressed over the maintenance of roads and sites, which need to be cleared to put hives down. Stakeholders also felt that outsiders have too much influence on issues that directly affect the local community.

Forest grazing

Graziers felt that there was increased public pressure not to graze on forest areas and that they had been affected by changes in Government policy and management. They were supportive of continued grazing licenses and access to long-term licenses. Graziers raised the issue of improving forest fencing, clearing forest waste and a need for fuel reduction burns. They felt that grazing can benefit forest areas by reducing fire hazard.

Mineral production

Access to public land was a prominent issue for miners and prospectors, who believed that they have been excluded from enough areas, and that exploration and prospecting have little impact on the forests. They expressed a desire to achieve a balanced outcome that allowed for the continued access for multiple use. They believe investment in prospecting and mining has been affected by uncertainty regarding access. They felt recognition needs to be given to the income their industry generates for rural towns, and also be valued as a hobby which can provide exercise for families and retired couples.

Aboriginal groups/communities

Aboriginal community participants were concerned about the lack of adequate consultation with Aboriginal people on forest management. They wanted to have greater access to State forests, and be more involved in decisions about them, as forests were central to their way of life. Aboriginal people across the region use the forests for cultural purposes and obtaining craft materials. They stated that forests as a whole were important rather than particular sites, and were also concerned about damage to individual cultural sites such as scarred trees. They all felt cross cultural awareness training is required for all people working in forest management and industry. The various Aboriginal communities had different regional views about other issues, and some groups expressed specific regional concerns about forests.

Community telephone survey

The views of the West community were obtained through a telephone survey of the region. The results illustrate a range of attitudes and views towards the use and management of native forests in the region. The survey sample reflected a small bias towards female respondents, however, the sample ages were within five per cent of census percentages for the same age ranges.

Eighteen per cent of respondents or household members of respondents were employed in one or more forest-based industries. Of these 68 per cent were employed in grazing, with a further 15.3 per cent employed in tourism and 6.9 per cent in recreational prospecting. All four sub-regions had similar concentrations of residents participating in activities and industries that use land in public native forests.

Nine per cent of the total respondents indicated that they have been involved in native forest management, planning or conservation in Victoria. Over 33 per cent have been involved in tree planting on a farm, school, or organised event, while a further 23 per cent have been involved in environmental groups such as Landcare.

Within the last year, 55 per cent of respondents had visited a National Park in Victoria. However, there was a significant variation in the use of National Parks with relatively few respondents in the Midlands (44 per cent) and Otway (44 per cent) subregions and relatively more respondents in the Horsham (78 per cent) and Portland (60 per cent) sub-regions visiting National Parks. Nevertheless, visitations to National Parks were significantly higher than for State forests. During the last year only 38 per cent of respondents indicated that they had visited a State forest, with relatively higher percentage visiting State forests in the Otway sub-region than respondents from either the Midlands, Portland or Horsham sub-regions. The primary activity when visiting either a National Park or State forest was walking or bushwalking, however, more visitors to National Parks (84 per cent) reported this as an activity than did visitors to State forests (59 per cent). Other major activity in National Parks included picnics or barbecues (33 per cent), drive or 4WD travel (28 per cent), camping (19 per cent), and sightseeing (18 per cent). In comparison other major activity in State forests included drive or 4WD travel (34 per cent), picnic or barbecues (28 per cent), sightseeing (16 per cent), firewood collection (7 per cent), and camping (8 per cent).

Eighty-nine per cent of respondents were interested in the management and use of National Parks and 85 per cent of respondents were interested in the management of State forests, with no significant differences across sub-regions. When asked to nominate the three most important things that needed to be considered in the management of National Parks in Victoria, 35 per cent indicated protection and preservation of native flora and fauna, 19 per cent indicated maintaining or improving fire management practices, and 13 per cent of respondents indicated maintaining public access. In comparison the three most important issues in State forest management were fire control and management of logging (19 per cent). However, 25 per cent of respondents were not able to identify issues important to the management of National Parks, and 26 per cent were unable to identify issues important to the management of State forests.

Respondents were also asked if there had been any changes in the use of native forests in the last five years which affected their community. Twenty two per cent indicated that there had been a change, however, there was some variation in these responses when a sub-regional comparison was made. In the Horsham sub-region, 29 per cent of respondents indicated there had been a change in the use of native forests which had affected their community, as compared to 25 per cent in Otway, 23 per cent in the Midlands, and 16 per cent in Portland. The three most common changes included restrictions on firewood collection (12 per cent), loss of forests through logging (8 per cent), and an increase in mining operations (8 per cent).

The results of the survey indicate that the people in the West region value forests for the environmental values with the vast majority interested in being involved in their management. The most frequently visited National Parks during last year were the Grampians National Park (63 per cent), Lower Glenelg National Park (7 per cent), and Port Campbell National Park (6 per cent). The most frequently visited State forests were the Otway Ranges (30 per cent), Wombat State Forest (13 per cent) and Mt Cole State Forest (8 per cent).

The results also highlight that people are aware of the importance of the forests to their social and economic well-being. Seventy-seven per cent of respondents believe that National Parks are important to the local economy of the area they live in, and 70 per cent of respondents believe that State forests are important to the local economy of the area they live in.

Forest industry activity and linkages

This section provides an analysis of industry mail surveys conducted as part of the social assessment for the West RFA. It identifies communities that are reliant on forest based industry activity in the region, and identifies significant relationships between specific areas of forest resource in the region and communities dependent on that resource.

The analysis is based on four township resource clusters (TRCs) identified in the West region, which are communities geographically distinct from other areas. The four TRCs include Midlands, Otway, Portland and Horsham.

The four TRCs were defined on the basis of the geographic distribution of mills and resource drawn from the forest management areas (FMAs) in the West region. The West includes all or part of six forest management areas (FMAs). The three FMAs of Midlands, Otway and Portland are wholly within the West region, approximately 50 per cent of the Horsham FMA is within the region, while small portions of the Central and Dandenong FMAs are included on the eastern boundary of the West region.

Native timber processing industry

There are 24 timber processing industries drawing their resource from FMAs located within the West region, including 21 hardwood mills and 3 pulpwood processors. One of the pulpwood processors has recently closed. The industries directly employ 374

people, which includes permanent and casual employees. (Since the printing of the CRA it has been found that one mill included in the CRA mill survey analysis did not receive logs from the West region. This was due to an oversight. The analysis in the Social Assessment Report excludes this mill).

The Midlands TRC consisted of 11 mills and has 54.5 per cent of all industry employees and the Otway TRC has four mills and 19.3 per cent of all industry employees. The Portland TRC has three mills and 6.9 per cent of all industry employees, while the Horsham TRC has two mills and 0.8 per cent of all industry employees. The remaining mills are located outside of the West region, and not included in the TRCs.

The majority of all employees who work in mills which draw their resource from the Midlands FMA, live in the Midlands TRC. These employees reside in the towns of Daylesford, Woodend, Colac, Beaufort and Ballarat. Any change in resource status from this FMA, which may impact on employment, has the potential to effect these towns. Mills located in Otway TRC draw the majority of the resource from the Otway FMA. Employees of mills in this TRC reside in the towns of Colac and Forrest. Again, any change in the status of the resource in the Otway FMA, which may effect employment is likely to impact on these towns. Mills in the Portland TRC draw the majority of their resource from the Portland FMA, with employees residing in the towns of Hamilton, Heywood and Portland. Mills in the Horsham TRC draw the majority of their resource from the Horsham FMA, with employees residing in the towns of Horsham and Stawell.

Industries located in the Midlands TRC source many of their goods and services from the towns of Geelong, Ballarat and Daylesford, while industries in the Otway TRC source their goods and services primarily from Colac.

An examination of the profile of forest industry employees indicates that 93 per cent of mill employees are male, and the mean age is 40 years. On average these employees have been working in the current business for eight years, and have worked in this industry sector for 12 years. The majority of employees are long-term residents of the town they live in and have lived there for an average of 24 years. Forty-seven per cent of employees have a education level of year 10 or less. Two thirds of all employees are married, with 20 per cent of employed partners working in the same industry.

In relation to household expenditure, timber processing industries located in the region generate \$5.8 million in annual household expenditure. Of this, the mills around Daylesford generate the most annual household expenditure, with \$1.4 million, and the mills at Colac and Beaufort each generate \$0.8 million in annual household expenditure. Overall employees drawing a percentage of their resource from the West region generated \$7.2 million in annual household expenditure.

Forest contractors

An estimated 24 contracting businesses access forest resources within the West region. The majority of contractors (67 per cent) were located within the Otway TRC and in particular the town of Colac (42 per cent). It was also estimated that there were

123 employees of contracting businesses, within the Otway TRC having 77 employees and the town of Colac having 51 employees. As survey information was not available for the majority of contracting business employees, it was not possible to identify the residential location of all contracting business employees. However, analysis shows that most employees live in the same TRC as the one in which they are employed.

The profile of contractor business employees indicates that 95 per cent are male and have a mean age of 40 years. On average employees have been working in the current business for 11 years and have worked in this industry sector for 17 years. The majority of employees are long-term residents of the towns they live in and have lived there for an average of 30 years. Of the employees 59 per cent have an education level of year 10 or less, 80 per cent are married, with 31 per cent of all employed partners working in the same industry.

In relation to household expenditure, contracting businesses located in the region generate \$2.3 million in annual household expenditure. The majority of this occurred within the Otway TRC (\$1.5 million). Contractors within the Midlands TRC were found to generate \$400 000 in annual household expenditure among their employees.

Other forest-related industries

Other forest related industries within the region include grazing, apiary, tourism, mining and prospecting.

Forest grazing

The return rate of questionnaires from businesses who held grazing permits was low (7.4 per cent), as was the return rate for employees of those businesses. Therefore, the only analysis possible was to examine the town location of grazing businesses. Of the 201 grazing businesses identified, 64 (32 per cent) were located in the Horsham TRC, 44 (22 per cent) were located in the Portland TRC, while an additional 28 (14 per cent) were located in the Midlands TRC.

Apiculture

The return rate for questionnaires from businesses who held apiary permits was 31.8 per cent. Of the 88 apiculture businesses identified, 23 (26 per cent) were located outside the West region in Bendigo and towns south of Bendigo. In addition, 21 (24 per cent) were located in the Horsham TRC, primarily in the towns of Horsham and Stawell and 18 (21 per cent) in the Midlands TRC. The majority of apiarist businesses had operated in the region for some time, with the average business having operated for 32 years.

An examination of the profile of employees in apiculture businesses indicates that 86 per cent of employees are male, and the mean age is 44 years. On average these employees have been working in the current business for 18 years, and have worked in this industry sector for 18 years. The majority of employees are long-term residents of the town they live in and have lived there for an average of 29 years. Sixty-two per

cent of employees have a education level of year 10 or less. Two thirds of all employees are married, with 73 per cent of employed partners working in the same industry.

Prospecting and mining

The return rate for prospecting and mining businesses was 32 per cent. The majority of prospecting and mining businesses located within the West region were found in the Midlands TRC (62 per cent) and the town of Ballarat. Outside the West region, a significant number of these business were located in Bendigo (38 per cent).

Responses from prospecting and mining employees, show that 91 per cent of all employees were male, with a mean age of 49 years. On average employees have been working in the current business for seven years and had worked in this industry sector for 15 years. The majority of employees are long-term residents of the town they live in, having lived in their current town for an average of 21 years. Twenty-two per cent of employees had a year 10 or lower level of education. Eighty per cent of all employees were married with 31 per cent of partners working in the same industry as the employee.

Tourism

Twenty-five per cent of tourism businesses who held permits for activities in public forests responded to the questionnaire. Although, only 31 employees of these tourism businesses completed questionnaires, an employee profile of these tourism businesses was developed.

Of the tourism businesses that were known to operate in public forests in the West, 45 per cent were located outside the region, with 27 per cent of all tourism businesses based in the Melbourne metropolitan area. Of the 55 per cent of tourism businesses located within the West region, approximately one third were located in the Midlands TRC.

Of the 113 tourism businesses who had permits to access public land within the West region, 46 per cent operated in the Grampians, 38 per cent operated in areas along the Coast, while a further 16 per cent operated in the Basalt Plains area.

The questionnaire distributed to tourism businesses (permit holders) asked each business operator to identify those towns in the West region they considered tourists were most likely to visit. Although only based on 26 responses, the main towns identified were Halls Gap (100 per cent), Apollo Bay (84 per cent), Lorne (81 per cent), Port Fairy (81 per cent), Anglesea (69 per cent) and Warrnambool (69 per cent).

A profile of tourism business (permit holder) employees, shows 71 per cent of employees were male and the mean age of employees was 39 years. On average employees had been working in their current business for five years and had worked in this industry sector for nine years. The majority of employees had lived in their current town for an average of 12 years. Of the employees 74 per cent had a year 12 or higher level of education, 68 per cent were married, with 55 per cent of all employed partners working in the same industry.

Community case studies

As part of the social assessment process, detailed assessment was undertaken in six communities across the region: Apollo Bay, Colac, Ballarat, Daylesford, Dunkeld and Heywood. A variety of methods were used to develop a detailed profile of each community. Information was obtained through secondary data source such as Australian Bureau of Statistics (ABS) statistics, local government reports, government department publications, community service directories and through community workshop and extensive fieldwork in each of the communities. This information was collected in order to provide an assessment of the socio-economic structure, historical response to change, community attachment and to identify forest values and attitudes towards forest use and management.

Apollo Bay

Apollo Bay has a relatively small permanent population, which doubles with tourists and holiday makers in the summer months. It tends to be an older population because of retirees, and there has been limited employment opportunities to keep young people in the town. The increase in newcomers to the area makes it a diverse community with people from different backgrounds. Participants felt that in recent years the community has become more political, and involved in development issues affecting the town. The locals see the RFA as a significant issue for the township and the area. They believe the community has a high degree of environmental awareness, and there are strong sentiments about logging of native forests especially in the Otway Ranges. Some participants were concerned about the impact of harvesting forests, the traffic hazard of logging trucks, and the damage to the roads. Participants felt that the future vision for the town lies in development of tourism opportunities.

Colac

Colac has experienced significant changes in the last decade with the restructuring of State and local government, the rural recession and restructuring of the rural sector especially the amalgamation of dairy farms, and the consolidation of timber mills. As a service town to the outlying district the rural recession has had a reported impact on retailing and trading in the township. Participants believed that young people are leaving the town because of the lack of vocations and educational opportunities. In response to these changes, the community is attempting to broaden its economic base by diversifying into new products and market niches. The timber mills in the town have an increased focus on value adding. There is recognition of the importance of the Otways for forestry, water supplies and tourism. Participants felt that the strategic location of the town should be capitalised on in future development.

Ballarat

Ballarat is one of the largest inland settlements in Australia. It has a diverse population with a relatively high number of 15–24 year olds attending the educational institutes in the town. Ballarat's rich history of gold, its wealth and historic buildings makes it a major tourist destination especially for interstate and overseas visitors. Despite the value of tourism, the downturn in the rural sector and manufacturing sectors has meant that there are high unemployment rates, especially amongst youth in the city. Participants see employment generation as critical for the future prosperity of Ballarat, and envision establishing Ballarat as a centre for commerce within the region. Participants also described a proposal to create a fast, daily commuter train to Melbourne to retain families in Ballarat. However, there was some concern that a dramatic increase in population may jeopardise the quality of life in Ballarat.

Daylesford

Daylesford, renowned for it mineral springs, is experiencing an increase in tourism. The area, promoted as the 'Spa Centre' of Australia, has seen a substantial increase in B&Bs and tourist accommodation since 1992. The accommodation and restaurants generate significant economic investment for the district. The area has also attracted new residents seeking alternative lifestyles, generating additional new commercial activities. However, participants felt that the increase in tourism has had some major impacts on the town with the cost of food and real estate rising significantly. Locals are also concerned that Shire money is being spent on tourism needs, not on local infrastructure. Participants wished to see that the environmental values, which attracted them to the area, would be maintained. They had concerns specifically about harvesting in the Wombat forest, and possible impacts on water catchments. Participants expressed the view that Daylesford is a vibrant community reliant on tourism and the spa industry. Participants wanted to see the economic base of the town diversified.

Dunkeld

Dunkeld is a small town with an aging population. Although the district has been prosperous in the past, many of the properties currently are enduring a rural recession associated with the decline in wool and beef prices, accompanied by a reduction in the farming population. Participants felt that the closure of the bank two years ago, followed by the closure of general store, impacted heavily on the town as more locals source all their goods and services from nearby Hamilton. Despite these setbacks, participants felt that in the last five years the town has been actively selling itself as the 'Southern Gateway' to Grampians. The development of the Tourist Information Centre and streetscape works has helped to encourage tourists to stop. The renovation of the Royal Mail Hotel has been a significant investment for Dunkeld. Rural families are developing a tourist focus and refurbishing empty cottages as tourist accommodation. The participants value their new tourism focus but want the town to retain its uniqueness.

Heywood

Heywood is a service town for the outlying agricultural hinterland services, as well as a commuter town to Portland. Some downsizing in the community has been attributed to the restructuring of local government, government agencies and service delivery, and the general decline in beef and wool prices. However, Heywood on the whole has been able to maintain an economic base because of its dairying industry. Participants were concerned about the increased numbers of agricultural properties being converted into blue gum plantations. While they acknowledged that it enables farmers to sell their farms, or earn alternative income, there are fears that the plantations will result in a loss of population and amenity. Participants believe that the plantations are not labour intensive, and will be of little benefit to the local community. The community is promoting the district to increase tourism through a 'Wood Wine and Roses' festival, the promotion of the Great South Western Walk and new boutique vineyards.

Forest values and usages

Forest values and uses were also examined across the six case study areas. 'Representation of Place' maps generated by community workshop participants were used to capture the range and diversity of values people ascribe to their local environment.

It is evident from the community workshops that people living within the West region participate in a variety of economic, recreational and cultural forest related activities and identify with a range of forest values. The following table is a summary of the forest values and uses nominated by workshop participants across the six case study areas. This information provides an insight into the variety of values and uses that people associate with the forests of the West. However, given that it was derived from workshop participants it should not be viewed as a comprehensive assessment of the range of uses or the only locations where those activities or values occur.

Forest values and usage

Historic—for example historic towns, gold mines and fields, saw mills, cemeteries, tramways, labour camps, Aboriginal cultural sites, heritage rivers, trails, and bush blast furnace.

Aesthetic—for example sightseeing, scenic views and drives, lakes and river surrounds, bird and other fauna watching, landscape, wildflowers, Great Ocean Road, and waterfalls.

Environment—for example Mountain Ash forests, cool-temperate rainforest, water catchments, Lerderderg River, mineral springs, River Red Gum, Landcare and National Heritage Trust projects, habitat links, remnant native grasslands, orchids, wildlife, brolgas, bird, (red tailed black cockatoos and owls), koalas, Otway Ranges, Grampians, salinity problems, bushfires, and need for fuel reduction burns.

Recreation—for example fishing, camping, horse riding, 4WD, water recreation, swimming, surfing, picnicking, barbeques, mountain bike riding, horse riding trails, rock climbing, bushwalking, Trans-Otway Walk, Great South Western Walk, port and coastal walks.

Economic—for example tourism, firewood collection, apiary (limited access for bees), farming, aquaculture, timber harvesting, high value timbers, plantations, farm forestry, geological activity, prospecting, gem collecting, gold exploration, restaurants, and eco-tourism.

Social/cultural—for example lifestyle attractions, sheer enjoyment, holidays, family ties, galleries, arts and cultural activities, forest festivals, and visiting friends and family.

Education—for example nature study, school trips and hikes, school camps, low cost recreation for youth, forest interpretation, field naturalist activities, nature documentation, and retreats.

Conclusion

The information collected as part of the social assessment process indicates that there are a range of positive and negative impacts that may be associated with changes in forest policy within the West region. These impacts will vary according to geographic location, regional/community context and by stakeholder group. Based on the data gathered, social impacts will be studied further during the development of a proposed reserve design for the West region.

While the data collected in the social assessment will be used to inform the RFA decision-making process, it is anticipated that this information will be useful in facilitating future social and economic development within the West region.

Introduction

The **first section** of this report defines social assessment and highlights the importance of considering this approach within a natural resource planning context. The section provides a brief overview of the social assessment process, outlining the methods employed. A multi-method approach to data collection has been adopted utilising survey, interview, workshop, networking and participant observation techniques. Public involvement is a critical component of any social assessment process and as a result the methods have been selected to maximise community participation, where possible.

The **second section** of the report provides a description of the West RFA region. Through the use of historical analysis and a comprehensive review of secondary data sources, including state and regional statistical information, a picture of the social environment within the region is constructed. This section also details the major social changes that have occurred in the region in relation to forest land use as a result of land use decisions.

Section three describes the views of the general community, obtained through a telephone survey of the West region. The objectives of this study were to identify:

- community attitudes towards the management and use of forested lands; and
- the level of community dependency on forested lands within the West RFA region.

Section four identifies the linkages between land used by timber and forest-related industries and communities. Survey and catchment analyses are used to identify employment, expenditure and services use patterns across the region and subregions to highlight communities with a particular dependence upon the forest resource.

Section five identifies the views of stakeholder groups with an interest in the management and use of native forests within the region. The stakeholder analysis is based on survey responses, discussions and consultations held with a range of key stakeholder groups and individuals at a state, regional and local level.

Section six provides information on six case study areas which are intended to characterise the social and economic diversity of the region. Profiling work at the local level provides an analysis of a community's ability to respond to change, the community's relationship with the forest, patterns of use and the community's visions for the future.

1 Methodology

The social assessment approach employed in the Regional Forest Agreement (RFA) process for the West region of Victoria reflects the work of social assessment practitioners such as Dale and Lane (1994) and Taylor, Bryan and Goodrich (1990), who propose an iterative and adaptive issues-oriented approach to social assessment.

The aim of the social assessment process is to provide a better understanding of the social environment within a particular region to inform the development of a Regional Forest Agreement. This involves the collection of objective facts, such as population statistics, and the documentation of community values and perceptions on particular issues. Certain methods employed within the assessment process, such as the random survey method, may be considered more representative than other methods such as workshops. However, when a triangulation approach is adopted, which utilises both quantitative and qualitative methods of inquiry, the validity or accuracy of the information collected is enhanced. Triangulation attempts to integrate data collected through different methods and sources to gain a more comprehensive understanding of the domain under investigation.

While much of the data collected in the process is of a cross-sectional nature, whereby a sample of the population is selected and information collected at one point in time, historical analyses have been undertaken to place the present social environment in a historical context of change. It is important to note that research design and the choice of data collection methods depends largely on the nature of the problem under investigation, the population being researched, the extent of resources available and the constraints of the framework in which social assessment is being undertaken.

The following criteria (Table 1.1) were considered to be important in relation to a community's sensitivity or vulnerability to change. Relevant indicators were established for each criterion and measured at a community level of analysis, where appropriate. The table also identifies the data collection methods employed. These methods are outlined in detail later in this section.

Data collected in the assessment phase will be used as a platform from which impact predictions can be made during the integration phase of the RFA process.

Table 1.1 Social indicators

| Criteria | Indicators/variables | Method of collection |
|--|---|---|
| Economic viability | Industry diversity Industry by employment Size of local businesses Household income Number of dwellings sold Local and regional expenditure patterns of forest-related industry within the region Household expenditure patterns of forest-related industry employees | Review of secondary data sources such as Australian Bureau of Statistics (ABS) and the Integrated Regional Database (IRDB), Shire/Council reports Surveys of forest-related industries and employees of these industries |
| Forest industry employment and labour force characteristics | Profiles of occupational groups working in forest related industries including: number of workers years worked in the industry experience in other industries age and structure of workforce educational level | Review of secondary data sources such as ABS, IRDB statistics, previous research within this population Information from industry associations Surveys of forest users |
| Population characteristics | Population growth Population size Population mobility Median family income Age structure Median weekly rental Number of mortgaged houses Percentage of private authority dwellings Percentage of occupied rental dwellings Educational qualifications Family distribution/Ethnicity | Review of secondary data sources such as ABS, IRDB, Shire/Council, government agency reports |
| Provision of social infrastructure | • Extent and use of community services such as education, health, welfare and recreation | • Review of secondary data sources such as ABS, relevant government agency reports and statistics, community service directories |
| Community vitality | Length of residence Membership/participation in community organisations Housing ownership Income distribution Rate of unemployment | Review of secondary data sources such as ABS statistics. Surveys Qualitative assessment through informal interviewing, participant observation, networking, and community workshop |
| Social well-being | Density of local tiesSense of communityAttachment to place | Survey methods Qualitative assessment through: informal interviewing, participant observation, networking, and community workshops Review of secondary data sources |
| Historical response to change | Historical response to change Significant events in the community Community response or management of change | Qualitative assessment through review of secondary data sources such as archival records, oral histories, social indicator data. Interviews and community workshops |
| Community visions and aspirations | Alternative economic opportunities for the township or region as perceived by the community | Qualitative assessment through: informal and semi-structured interviews, and community workshops |
| Community attitudes towards forest use and management | Community attitudes to forest use and management Potential impacts resulting from changes in resource availability | Quantitative and qualitative assessment through: surveys, community workshops, and structured interviews |

1.1 Quantitative data collection methods

1.1.1 Social indicators

Social indicators are measures of community and social well-being that are measured at regular intervals, enabling the determination of trends or fluctuations. Social indicators may also be descriptive measures of social conditions or analytical measures of social well-being with specific interrelationships with other variables. Social indicators are often used to monitor the impacts of large scale social change on the quality of life of residents.

In the present assessment, census data and other social indicator data sets such as those held by Commonwealth and State government agencies (e.g. health, education) were examined to identify the key social indicator variables within the West region and to examine these indicators over time.

In Section 2 'Regional profile', census data was used as the basis for describing the population and dwelling profiles for the West RFA region. For each profile 1996 census data was used and an analysis undertaken for the West RFA region, rural Victoria and selected sub-regions. Profiles for the West RFA were based on the aggregation of census collector districts (CCDs) which approximated the boundary of the West RFA region. Profiles for rural Victoria, were provided for the purposes of comparison with the West RFA region, and included all statistical divisions in Victoria with the exception of the Melbourne statistical division.

Each profile also describes the four sub-regions, as shown in Figure 1.1. The four subregions consisted of the four 'town resource clusters' (TRCs) described and identified in Section 4 (Midlands, Otways, Portland and Horsham). In all cases the four subregions were defined through the aggregation of census collector district boundaries.

Where information was available, time-series analyses were undertaken for the West RFA region for the census years 1986, 1991 and 1996. In order to ensure comparability of geographic units across each of the three census years, Statistical Local Areas (SLAs) were aggregated to approximate the boundary of the West RFA region. The 50 SLAs used in the aggregation, and on which all time series analyses were undertaken, are given in Table 1.2. Figure 1.2 shows the boundary of the aggregated 50 SLAs used in the time series analysis and the boundary of the West RFA region.



Figure 1.1 Location of town resource clusters



Figure 1.2 SLA boundary for time series analysis

| Tabla 1 2 | SIAc aggregated in the time caries analysis for the West DEA region |
|------------|--|
| I able I.Z | SLAS AUDIEDATED III THE TIME-SELIES ANALYSIS IDI THE WEST KEA LEDION |
| | |

| SLA Name | SLA Name | SLA Name |
|--------------------------|----------------------------|---------------------------|
| Ararat (RC) | Ballarat (Central) | Ballarat (Inner North) |
| Ballarat (North) | Ballarat (South) | Bellarine (Inner) |
| Colac-Otway (Colac) | Colac-Otway (North) | Colac-Otway (South) |
| Corangamite (North) | Corangamite (South) | Corio (Inner) |
| Glenelg (Heywood) | Glenelg (North) | Glenelg (Portland) |
| Golden Plains (Nth West) | Golden Plains (South East) | Greater Geelong (Part B) |
| Greater Geelong (Part C) | Hepburn (East) | Hepburn (West) |
| Horsham (Balance) | Horsham (Central) | Hume (Sunbury) |
| Macedon Ranges (Balance) | Macedon Ranges (Kyneton) | Macedon Ranges (Romsey) |
| Melton (Balance) | Melton (East) | Moorabool (Bacchus Marsh) |
| Moorabool (Ballan) | Moorabool (West) | Moyne (Nth East) |
| Moyne (Nth West) | Moyne (South) | N. Grampians (Stawell) |
| Pyrenees (North) | Pyrenees (South) | Queenscliffe |
| S. Grampians (Balance) | S. Grampians (Hamilton) | S. Grampians (Wannon) |
| South Barwon (Inner) | Surf Coast (East) | Surf Coast (West) |
| Warrnambool | West Wimmera | Wyndham (Balance) |
| Wyndham (Nth West) | Wyndham (Werribee) | • · · |
| Sources ADC (1004) | • | |

Source: ABS (1996) Prepared by: EBC (1999).

1.1.2 Survey methods

The survey methods are designed to deal with the nature of people's thoughts, feelings and perceptions on particular issues. Surveys involve the development of a number of questions/items that utilise predetermined response categories. An individual's perspectives and experiences can also be collated and assigned numeric codes to assist in analysis.

A major advantage of using survey methods is that they allow a sample of the population to present its views. Survey methods which employ probability sampling techniques allow a random sample of the population, resulting in a relatively accurate representation of the views of the community as a whole. However, survey methods are not without their limitations, the main disadvantage being that such methods are only snapshots in time and are often not an adequate substitute for the dynamic interaction and development of ideas that occur in face-to-face discussions. This difficulty can be overcome if the survey method is used in conjunction with other methods such as in-depth interviews or workshops which provide a means to validate the information obtained.

A number of general survey methods exist. Those methods used in the present assessment are outlined below, namely the mail survey and the telephone interview.

Mail survey

The mail survey is one of the most common means of distributing self-administered questionnaires. Interviewer bias is avoided as the survey is self-administered and can be completed relatively quickly. However, this method has a number of disadvantages in that respondents are unable to clarify questions should they need to and the researcher has little control over how the survey is completed. For example, variability among responses to a given question may exist as respondents may choose to work through the questions in different sequences. Furthermore, one of the main problems associated with the mail survey is response bias. That is, mail surveys tend to exclude respondents with literacy problems and can be intimidating to those with little educational background. In addition, response rates for mail surveys tend to be fairly

low (standard response rate of approximately 10%) and thus the degree of error or bias in the sample increases. However, despite these limitations, the mail survey does provide a useful means of obtaining information from people from different backgrounds across a wide geographical area.

Three separate questionnaires were designed for the mail survey of industries in the West. They were:

- a questionnaire to be completed by forest contractors, timber processing industries and forest user businesses (e.g. apiarists, seed collectors, grazing licensees, prospectors and miners);
- a questionnaire to be completed by tourism businesses; and
- a questionnaire to be completed by the employees of forest contractors, forest users, tourism operators and timber mills.

These questionnaires were distributed by mail to timber processing industries, timber harvesting contractors and businesses with apiary, seed, mining, prospecting, roading, firewood and cattle grazing licence interests on public land in the region. Databases and mailing lists held by Victorian State Government agencies and industry peak bodies were used as the basis for sampling.

Tourism businesses and employee questionnaires were distributed by mail to all tourism businesses that held licences or permits to operate within forest areas in the West.

Information gained from this study method, in conjunction with secondary data from the Australian Bureau of Resource Economics (ABARE 1999), attempts to divided the West RFA region into distinct regional groupings or clustering of towns. The geographic clustering of towns is known as town resource clusters (TRC). The regional profile, and the analysis of the mail and telephone surveys are based on these TRC regions.

The TRCs for the West RFA area, consist of four within the region—Midlands, Otway, Portland and Horsham. Further detail on town resource clusters is provided in Section 4 'Forest activity and linkages by town resource cluster'.

Community telephone survey

Telephone surveys are often chosen for survey research due to lower cost, enhanced data quality, ease of administration and reduced data retrieval time. Major advantages of such a method are that interviews can be completed quickly and because contacts are made by phone, a greater number of people can be sampled, resulting in a higher response rate. A major drawback, however, involves the problem of selection bias, that is respondents are limited to those who have telephones. While this has been of concern previously, it is now reported that over 95% of all households in Australia have telephones. In addition, there may also be a limit as to how long respondents are willing to remain on the phone. However, techniques in questionnaire construction and interviewing procedure can reduce this problem. It has also been suggested that

individuals may be reluctant to provide information to a 'faceless voice' (Shaughnessy & Zechmeister 1990).

Telephone sample size and sample selection

The study was based on a sample size of 813 people, which were drawn from all households within the West RFA region. A sample of this size permits considerable statistical confidence when making inferences from the sample to a single population.

Simple random sampling was used to identify households within the West RFA region. As a telephone interview was to be used in undertaking the research the published white pages directory for Victoria was used to randomly select household phone numbers. All listed phone numbers from within the study area were identified and a random sample of 8000 household phone numbers selected.

In addition to the total sample for the West RFA region, four sub samples within the region were also defined. The sub samples are based on the four TRCs located with the West RFA area—Midlands, Otways, Portland and Horsham. Table 1.3 shows the sample counts for each of the four sub samples within the West RFA region.

| Table 1.3 | Sample size for | sub samples within | the West RFA region |
|-----------|-----------------|--------------------|---------------------|
| | • | • | 0 |

| Sample group | Sample count | Sample per cent |
|--------------------|--------------|-----------------|
| Midlands | 249 | 30.6 |
| Otways | 161 | 19.8 |
| Portland | 249 | 30.6 |
| Horsham | 154 | 18.9 |
| Total | 813 | 100.0 |
| Courses EDC (1000) | | |

Source: EBC (1999).

The sample sizes for each of the four sectors allowed for meaningful inferences to be made to the population within each sector. However, the total sample could not be used in generalising to the total population of residents within the West region, as each sector was not represented in proportion to the total population size.

Telephone questionnaire design

The most important constraint on the design of the questionnaire was that it must be able to be completed through a telephone interview and that the maximum interview duration could be no longer than 15 minutes.

The questionnaire focused on the significance of forest value to the community in the West region.

Telephone interview procedures

Sixteen interviewers were used and each interviewer was given a list of 500 telephone numbers sorted in a random order. Each interviewer was required to commence from the first telephone number and proceed systematically through the list until 50 interviews had been obtained. Interviewers were instructed to make up to three recalls on those phone numbers which were not answered on the first occasion.

The interviewers were instructed to obtain interviews with those respondents aged 15 years and over. Interviewers were required to record responses to all open-ended

questions using, as far as practical, verbatim wording and to avoid classifying or coding responses.

Interviews were completed on the weekends of the 17–18 April and 24–25 April 1999, and between the hours of 10.00am and 8.00pm.

1.2 Quantitative data analysis

Quantitative data collected during the course of the assessment was coded and analysed using the Statistical Package for the Social Sciences (SPSS). Depending on the nature of the research problem, different descriptive, univariate and multivariate statistical analyses were undertaken including frequency analysis, multiple response analysis, cross tabulations, analysis of variance (ANOVA) with planned comparisons and factor analysis.

1.3 Qualitative data collection methods

1.3.1 Documentary review

Written materials provide a record of the historical development of the region, and a current profile of key issues. Documents such as government reports, shire directories, consultancy reports, research projects and documented local histories, provide an easily accessible and reliable source of information that is recognised within the communities described. Information was also obtained through informal networks, particularly face-to-face contact, to validate and complement information obtained through other sources.

1.3.2 Informal networking

Informal networking involves both systematically observing and participating in the day-to-day life of communities, organisations and groups. The technique seeks to identify the social factors that shape daily life of communities in the region. Face-to-face relationships with individuals allows a qualitative understanding of important social phenomena to be developed.

Informal networking allows the collection of data on a range of behaviours, a greater variety of interactions and a more open discussion of issues. It is an open-ended, flexible and interactive process, where the data collected is defined and redefined based on field experience and observation. The technique is particularly useful when used in conjunction with other methods.

The main weakness of the method is in assessing the reliability of the data and the time required to obtain and analyse the information collected.

1.3.3 Personal interviews

The personal interview method allows much more flexibility than the mail survey as respondents are able to clarify questions which may be unclear and the interviewer is able to ask respondents to elaborate on their answers to open-ended questions. In addition, the response rate for such a method is usually relatively high (commonly 80–85%). However, one of the main problems with the approach is interviewer bias, that is the way in which questions are framed and the probes used to facilitate responses. Interviewers should be a neutral medium through which questions and responses are transmitted. Therefore questions need to be asked in the same way and interviewers must be careful not to introduce ideas that may become part of the respondent's answers. Extensive training and close supervision help to alleviate such problems. Personal interviews may differ in structure from those which are more structured and systematic in nature to those which take on the appearance of normal everyday conversation.

Interviews that are less structured, afford the interviewer the freedom to explore, probe and ask questions on a specified range of topics and issues, and provide more freedom and flexibility in approach. In an unstructured interview, the interviewer decides on the sequence of questions during the course of the interview, increasing the comprehensiveness of the data and making the data collection more systematic. The greatest strength of this approach is that the interviewer is given the liberty to develop conversational style with the interviewee which in turn enables individual perspectives and experiences to emerge more naturally. The main weakness, however, is that salient topics may be obtained. The use of only one interviewer can reduce this problem of incomparability.

1.3.4 Community workshops

Community workshops provide a forum to generate a 'group product' such as lists of issues, conceptual alternatives, impacts or mutually acceptable plans of action. Workshops are best used when there is a specific problem or issue that needs to be addressed. Techniques that may be employed in the workshop process include brainstorming, nominal group process and subgroup discussions. Following the identification of issues, similar techniques can be used to weight or rank issues and investigate ways in which issues can be addressed. The workshop process has a number of strengths. It facilitates maximum flow of information and allows participants to explore solutions to issues or problems. However, depending upon workshop size it may be difficult to keep participants focused on a particular project. Despite these limitations, workshops afford a collective analysis of a problem(s) from people with a diverse range of backgrounds.

A variety of sampling frames have been employed to access participants in the process. Contacts made with participants at a local community level have occurred largely through a process of networking. Networking is one of the most informal of all participatory techniques and begins with contact with key groups or individuals in a community and then 'snowballs' throughout the wider community in a process

referred to as 'snowball sampling'. This approach provides an effective means of accessing the formal and informal networks present in a community.

1.4 Qualitative data analysis

There are a variety of techniques that can be used to analyse qualitative data collected through interview and workshop methods. The techniques employed in this assessment included content/theme analysis and analytical induction methods.

1.5 Feedback and evaluation

Results of the social assessment are provided to stakeholders and local communities involved in the process through the publication of this report and through the Forest Community Co-ordinator for Victoria.

1.6 Expert panel assessment

A reference group of social assessment experts was established to provide technical expertise relating to the methodology and approaches adopted by the Social Assessment Unit in the course of its work. Membership of the panel includes representatives from the scientific and academic sectors:

- Dr Alan Dale Regional Planner, CSIRO Tropical Agriculture Cunningham Laboratory Queensland
- Dr Jacquie Tracey Senior Project Officer, Industry Development Forestry Structural Adjustment Unit Department of Land and Water Conservation Sydney, New South Wales
- Dr Brian Bishop Associate Professor, School of Psychology Curtin University of Technology Perth, Western Australia
- Dr Marcus Lane Postdoctoral Research Fellow Department of Landscape and Environmental Planning RMIT Melbourne, Victoria

All panel members have extensive research and applied experience within the social impact assessment field and have published extensively in national and international fora.
2 Regional profile

2.1 Geographic description

The West region covers over 5.8 million hectares of Victoria, from the western outskirts of Melbourne to the Victoria–South Australia border. The Great Dividing Range forms much of the northern boundary. The region covers the Shires of Glenelg, Moyne, Corangamite, Colac–Otway, Surf Coast, Greater Geelong, Golden Plains, Moorabool, Ballarat, Southern Grampians and Ararat. Sections of the Shires of Hepburn, Pyrenees, Northern Grampians, Horsham, Yarriambiack and West Wimmera are also included in the region.

2.1.1 Landscape and climate

The climate in the West is temperate, with patterns of precipitation and temperature related to geography, topography, altitude and proximity to the coast.

Western Victoria is generally lower in elevation and relief than the east of the state, and the landscape is undulating to hilly. Major peaks include Mt William (1167 m) in the Grampians National Park and Mt Macedon (1001m). The western end of the region is dominated by the Dundas Tableland. In the south of the region, the Otways Ranges are characterised by highly dissected, undulating terrain.

The Grampians and Otway Ranges are the dominant landform features in the region. These ranges have a significant influence on weather patterns, which in turn affects vegetation distribution and fire risk conditions.

Temperature varies according to proximity to the coast and altitude. January and February are the hottest months of the year when mean maximum temperatures range from the low 20s near the



Mt Sturgeon, Grampians

coast and at higher elevations to the low 30s in the north. Minimum temperatures occur in the winter months and average maximums range between 10°C and 15°C. Strong winds are a feature of the region, particularly near the coast, which is evidenced by the 'windswept' nature of the vegetation.

2.1.2 Size and tenure

The West region covers approximately 5.8 million hectares. Private land comprises 4.7 million hectares, or 82 per cent of the region, and is mostly cleared and used for a

range of agricultural and industrial pursuits. Extensive areas of privately owned plantations exist in the south-west and east of the region.

Public land comprises 1.0 million hectares, or 17 per cent of the area, and is covered mostly by native forest. Areas of public land are generally concentrated in the Otway Ranges, along the Great Dividing Range and in the south-western corner of the region. Public land in the West region is known for its mountain and coastal landscapes, diverse range of flora and fauna, timber resources, and tourism and recreational opportunities.

State forest occupies 411 000 hectares, or 37 per cent of the public land. Conservation reserves, including National Parks, State Parks and Flora and Fauna Reserves, occupy a similar proportion of the public land, or approximately 437 000 hectares. The remaining public land in the West region, includes other public land and water bodies. Although the formerly government-owned plantations are now privately managed, these areas are also included as public land as the land is leased from the Crown.

2.2 Historic description

According to the reconstruction by Clark (1996) the Aboriginal language groups existing in the West region consist of (from east to west) Woi Wurrung, Djadja Wurrung, Watha Wurrung, Gulidjan, Gadubanud, Djargurd Wurrung, Girai Wurrong, Djab Wurrong, Jardwadjali, Dhauwurd Wurrung and the Buandig which extends into South Australia. From observations in post contact times, Aboriginal people used the whole landscape for their economy. The culture of Aboriginal communities was based on an intimate and dynamic relationship with the environment through activities such as gathering and hunting, and through association of places with religious beliefs and obligations. Aborigines shaped the environment through their activities. Forest resources such as timber and bark were traditionally used to make shelters, weapons and tools. In the Stony Rises and Lake Condah area, shelters of wood with stone foundations were constructed. The forests also provided food such as emus, koalas, wallabies, possums and starch from tree ferns. Fire was used to encourage regeneration, particularly of edible plant foods, and to expose edible roots.

Lieutenant Grant, in command of the *Lady Nelson*, made the first recorded European sighting of the coastline in 1800, naming Capes Patten and Otway. However, Victoria's first permanent European settlement was not until 1834, when the Henty family arrived at Portland. Later reports of 'Australia Felix' by Major Thomas Mitchell and his party, who reached the mouth of the Glenelg River in 1836, encouraged the influx of settlers not only from Tasmania and New South Wales but also from Great Britain. Town names such as Killarney, Penshurst and Belfast are a legacy of the many immigrants from Ireland and Scotland to this region.

By the 1850s most of the land had been taken by settlers. Aboriginal people were forced off their traditional hunting grounds, which caused numerous conflicts resulting in skirmishes between settlers and Aboriginal people, and massacres of Aboriginal people. This, and the introduction of new diseases, decimated local Aboriginal populations and their traditional social and subsistence base. In 1838, a Protectorate system was established but was abandoned 10 years later. A Central Board for the Protection of Aborigines was appointed in 1860 to oversee the interests of the Aborigines in the Colony of Victoria. This Board funded the establishment of missions, and several reserves were set aside between 1836 and 1861, including Lake Condah, Ebenezer Mission, Framlingham Forest and Franklinford in the West region. Aboriginal people at Framlingham and Lake Condah fought the system to stay on their land.

The discovery of gold in 1851 at Clunes and Buninyong transformed the eastern half of the region. Gold drew migrants from Europe and south eastern China and, by 1861, the goldfields held 228 000 people, compared with 125 000 people in Melbourne. Ballarat's goldfields were exceedingly rich and yielded a total of 9.44 million ounces of gold (CVTC 1997). Supported by significant investment accrued from gold mining, the economic base of Ballarat diversified and a wide range of manufacturing industries developed. By 1880, eight iron foundries, 13 breweries and four flour mills existed in the city.

The gold rushes of the 1850s also increased the demands for timber, and whole forests were cleared to provide props for tunnels, tramway sleepers and to line the shafts of mines. Mine boilers consumed hundreds of thousands of tons of firewood annually.

During the 1860s, four major Land Acts transformed the region from a grazing to an agricultural economy. These 'free selection' Acts encouraged new settlers and reduced the squatters' runs. The Land Act 1869 provided for selection of land, including some of the pastoral estates across the region. This led to clearing of forests in much of the region. In the Otways, although initial attempts were made to reserve areas of forest, virtually all land was made available for selection. The poor access and the immense difficulty of clearing the mountain forests by ring-barking, felling and burning meant that many allotments were only partially cleared. Many abandoned selections were reclaimed by the Crown.

Wildfire occurred frequently in the West region due in part to the settlers' use of fire. The first notorious and perhaps the most devastating fires documented were the 'Black Thursday' fires of 1851. Other major wildfires in the region occurred in 1886, 1898, 1919, 1926, 1939, 1951, 1962, 1977, 1983 and 1995. Major fires were recorded every summer from the turn of the century to 1919, when 50 000 ha of Crown Lands in the Otway Ranges and the Grampians were devastated by bushfire.

Graziers, miners and selectors felled large quantities of bush timber. Government authorities used hardwood species for railway sleepers, piles for piers and docks, and electricity poles, and timber companies processed a range of forest products. Forests were intensively cut for mine supports, heavy construction timbers and fuel wood, which left many hillsides denuded. The timber was felled by axe and crosscut saw, then sawn into manageable sections for transportation to the mill by horse and bullock teams or timber tramway. The first sawmills were located close to their log supply. Power was supplied by steam using stationary engines and water-powered mills.

The first legislation enabling the government to reserve forested areas for the protection of timber resources was granted under the Land Act of 1862. As a result, large tracts of forest, including the Wombat State Forest, were reserved across the State. This legislation, however, brought no effective measures for the conservation of

forests. A series of reports from the 1870s recorded details of huge waste in the timber industry, and irresponsible and ineffective management of the forest resource. Forestry Bills were introduced to Parliament between 1879 and 1892, but none was enacted.

A Royal Commission on Forests, which sat from 1897 to 1901, led to the *Forests Act* 1907, which established the Department of Forests. This legislation was strengthened by the *Forests Act 1918*, which established the Forests Commission of Victoria. The 1918 Act gave the Commission the revenue to protect, conserve and develop the indigenous forest and maintain an adequate area of softwood plantations.

The Forests Commission was able to directly influence the location of timber extraction and sawmilling through its log allocation system. Annual licences were granted to remove specified volumes of timber from defined areas of State forest. The Commission's roading program also assisted the expansion of the timber industry.

Residents of the West region also used the forests for recreation. Organised bushwalking tours that began in the late 1890s had become well established by the 1920s and boomed in the 1930s. By 1900, the Lorne area had become popular for holidays and guesthouses and hotels were scattered along the coast. Construction of the Great Ocean Road commenced in 1918 with the concept that it would be a tourist road of 'world repute' (CVTC 1997). The first section from Anglesea to Lorne was completed in 1922 and, by 1932, had been extended to Apollo Bay, leading to an increase in visitor numbers from Melbourne.

The Grampians and Port Campbell National Parks are two of the most popular parks in the state and are located in the West region. These and other parks, reserves and State forest, have a history of recreational use including picnicking, bushwalking, horse riding and nature observation. Across the region, the popularity of these activities and others such as four-wheeled driving, trail bike and mountain bike riding has steadily increased.

2.3 Review of land use decisions

2.3.1 Change in forest land use

Throughout this century, forest related industries have experienced varying degrees of economic growth and diversification due to a range of economic, technological, and social changes. Within the West region, changes in government regulation of land use and forest management practices have required significant readjustment by these industries with an associated contraction in employment. This section outlines the major changes and the economic and social implications of land use and forest policy developments, and examines community and stakeholder perceptions of social change in the West region.

2.3.2 Review of land use policy and social impacts

In the past two decades, debate over environmental protection and sustainable resource utilisation in Victoria has intensified. In response, a number of inquiries/strategies have been initiated to address the balance between environmental protection and industry development. These include numerous Land Conservation Council (LCC) studies, the Timber Industry Inquiry, Victoria's Timber Industry Strategy (1986) including the Code of Forest Practices (1989), the State Plantations Impact Study (1990) and the National Forest Policy Statement (1992).

In the 1970s, 1980s and 1990s, the LCC conducted a series of land use studies in the West. These studies included regional investigations and Statewide theme investigations such as wilderness. Each study considered the full range of values and uses on public land in the region, including assessment of socio-economic impacts. The studies resulted in recommendations to the Victorian Government which sought to balance the needs and aspirations of the community in relation to public land, taking into account the uses and values of all land in the region.

The LCC collected a large volume of social and economic information on a range of values and uses in the West and took this into account in making its recommendations in the various studies. This information was also used to minimise the social and economic impacts of various recommendations on individual enterprises and local communities.

The delineation of boundaries for conservation reserves of various kinds has also been undertaken to ensure the protection of significant values while aiming to minimise any adverse impacts on other uses and values.

However, some social and economic impacts at various levels have resulted from the land use changes arising from the LCC studies and these have been clearly documented in the Council's recommendations for Government prior to it making the final land use decisions. The cumulative impacts have also been documented and taken into account in subsequent decisions. It is also important to note that some activities on public land were not sustainable in the longer term and there needed to be a phase down. While such phase downs do have social and economic impacts, the strategy adopted to achieve the required outcome has been tailored to minimise those impacts. The detail of these strategies has been worked out with those directly involved as one particular strategy may not be relevant to all sectors of industry communities or a region.

In 1986, following the Timber Industry Inquiry, the Victorian government finalised the Timber Industry Strategy (TIS). The strategy specified the requirement for sustainable management practices in relation to timber harvesting. Economic development in the timber industry was based on Value Adding to gain maximum benefit from wood harvested, and through industry investment in technology, to increase its competitiveness. Fifteen year sawlog licences to provide resource security and to encourage investment by the industry were subsequently issued.

A social assessment of the impact of the TIS was undertaken on a statewide basis. This assessment indicated that reducing statewide harvesting to sustainable levels would result in some employment losses, however, the development of the softwood industry, the encouragement of value-adding and the extension of the sale and processing of residual wood, would offset any employment losses. The government estimated that while 'labour productivity increase' would lead to a loss of 9000 jobs in the industry, overall employment levels on a statewide basis would increase by 2% in the 15 year period (Government of Victoria 1986).

In accordance with projected softwood growth specified in the TIS, the State government initiated the 1988 State Plantations Impact Study to review the concerns expressed by rural communities about the State's plantation program and to recommend an implementation program which would be of the greatest benefit to the community.

In the West region, strategies for natural resource management within water catchment areas have been developed to provide for sustainable development and the conservation of water and the need (Glenelg, Corangamite, Wimmera and North Central Catchment and Land Protection Boards 1997).

The regional catchment strategies assessment of catchment conditions incorporated analyses to assess the impacts caused by a range of land and water degradation issues. This included a social impact analysis, economic impact analysis and an environmental impact analysis. The analysis of issues across the whole of the region identified a number of priorities such as water quality in consideration of the impacts on economic, environmental and social values.

Places of cultural value include Aboriginal places, historic places, and places of social and aesthetic value. Social impact may potentially be derived from changes to such places via an alternation in use patterns, management or access. For example, any change in forest use or management which adversely affects the state of places of traditional or historic cultural values, may have an associated social impact on groups within the community such as Aboriginal peoples and other forest users. Similarly, adverse changes to the access or management of places of social or aesthetic value, or of historic value, may bear social impact for communities locally or regionally. The social implications of land use or management change on cultural values have been considered in previous LCC studies, including the Historic Places Special Investigation: South-western Victoria (LCC 1997).

2.4 Social-demographic profile

2.4.1 Population and housing

In 1996, the total population of the West region was 570 188. The largest city in the West region is Ballarat with a population of approximately 64 831 people. Warrnambool (26 052 people), Horsham (12 591 people), Bacchus Marsh (11 279 people), Colac (9 793 people), Portland (9 664 people) and Hamilton (9 248 people) are also large population centres in the region. Numerous smaller towns exist across the region including: Ararat (6 890 people), Stawell (6 272 people), Port Fairy (6 232 people), Camperdown (3153 people), and Daylesford (3 278 people). Geelong is

adjacent to the eastern boundary of the West region and has a population of approximately 125 500 people.

Many of the large population centres are located on the Western and Princes Highways, the major access routes through the region, with large industrial ports at Geelong and Portland. Towns that have developed along the coast include tourist destinations such as Apollo Bay, Lorne, Port Fairy, Port Campbell and Warrnambool.

Table 2.1 shows the population and housing characteristics for the West RFA region and specific sub-regions. Comparisons across sub-regions, the West RFA region and rural Victoria shows only minor variation in the percentage of males and females within the population and the occupancy rate for dwellings.

| Population and dwelling characteristics | Portland | Horsham | Midlands | Otway | West RFA | Rural Victoria |
|--|--------------------|--------------------|---------------------|--------------------|---------------------|-----------------------|
| Population | | | | | | |
| Males | 39 660 (49.7%) | 14 523 (49.5%) | 208 044 (49.6%) | 20 727 (49.9%) | 282 954 (49.6%) | 667 275 (49.6%) |
| Females | 40 178 (50.3%) | 14 814 (50.5%) | 211 452 (50.4%) | 20 790 (50.1%) | 287 234 (50.4%) | 677 077 (50.4%) |
| Total | 79 838 (100.0%) | 29 337 (100.0%) | 419 496 (100.0%) | 41 517 (100.0%) | 570 188 (100.0%) | 1 344 352 (100.0%) |
| Housing | | | | | | |
| Occupied | 29 788 | 11 216 | 142 811 | 15 518 | 199 333 | 494 621 |
| Unoccupied | 3 856 | 1 587 | 20 019 | 5 249 | 30 711 | 85 107 |
| Total | 33 644 | 12 803 | 162 830 | 20 767 | 230 044 | 579 728 |
| Persons per private dwelling | 2.7 | 2.6 | 2.9 | 2.7 | 2.9 | 2.7 |
| Data source: ABS (1996) | | | | | | |

Table 2.1 Population and housing characteristics

Prepared by: EBC(1999)

For the West RFA region as a whole there has been a gradual increase in the size of the population between the 1986 and 1996 census. Although the population has increased throughout this 10 year interval, there has been a corresponding reduction in the occupancy rates as shown in Table 2.2.

| Table 2.2 | Time series: population | and dwelling characteristics |
|-----------|-------------------------|------------------------------|
|-----------|-------------------------|------------------------------|

| Population and dwelling characteristics | 1986 | 1991 | 1996 |
|---|---------------------|---------------------|---------------------|
| Population | | | |
| Males | 268 102 (49.9%) | 293 926 (49.6%) | 307 128 (49.5%) |
| Females | 268 715 (50.1%) | 298 386 (50.4%) | 313 715 (50.5%) |
| Total | 536 817 (100.0%) | 592 312 (100.0%) | 620 843 (100.0%) |
| Housing | | | |
| Occupied | 174 344 | 200 490 | 219 978 |
| Unoccupied | 23 991 | 29 019 | 32 985 |
| Total | 198 335 | 229 509 | 252 963 |
| Persons per private dwelling | 3 1 | 29 | 2.8 |

Note: For the purpose of the time-series analysis population and dwelling totals are based on the aggregation of SLAs Data source: ABS (1996)

Prepared by: EBC(1999)

2.4.2 Age structures

Age and stage in family life cycle, as shown in Table 2.3, shows a similar age and life cycle profile for the West RFA region when compared to rural Victoria, although there is a tendency for population percentages in the West RFA to be younger than those for Rural Victoria. Each of the four sub-regions also have very similar age and life cycle profiles with the exception that the Midlands sub-region has a lower percentage of pre-retirement and elderly residents when compared to other sub-regions and rural Victoria.

| Age | Life cycle stage | Portland | Horsham | Midlands | Otway | West RFA | Rural Victoria |
|-------|-----------------------|-------------------|------------------|--------------------|------------------|--------------------|---------------------|
| 0-4 | Pre-School | 5 970 (7.6%) | 2 132 (7.4%) | 35 750 (8.7%) | 3 176 (7.8%) | 47 028 (8.4%) | 100 138 (7.6%) |
| 5–12 | Primary School | 10 050 (12.8%) | 3 535 (12.2%) | 58 000 (14.1%) | 5 520 (13.5%) | 77 105 (13.8%) | 171 412 (13.0%) |
| 13–17 | High School | 5 123 (6.5%) | 1 838 (6.3%) | 27 135 (6.6%) | 2 671 (6.5%) | 36 263 (6.5%) | 84 073 (6.4%) |
| 18–24 | Young singles/couples | 6 885 (8.8%) | 2 230 (7.7%) | 40 196 (9.8%) | 2 982 (7.3%) | 52 293 (9.3%) | 115 798 (8.8%) |
| 25–39 | Young/middle families | 16 927 (21.6%) | 6 255 (21.6%) | 100 423 (24.4%) | 8 417 (20.6%) | 132 022 (23.6%) | 285 117 (21.6%) |
| 40-49 | Mature families | 11 500 (14.6%) | 4 141 (14.3%) | 63 520 (15.4%) | 5 819 (14.3%) | 84 980 (15.2%) | 194 312 (14.7%) |
| 50–64 | Pre-retirement | 10 998 (14.0%) | 4 385 (15.1%) | 49 294 (12.0%) | 6 149 (15.1%) | 70 826 (12.6%) | 189 471 (14.4%) |
| 65+ | Elderly | 11 049 (14.1%) | 4 488 (15.5%) | 37 350 (9.1%) | 6 067 (14.9%) | 58 954 (10.5%) | 179 037 (13.6%) |
| Total | | 78 502 (100%) | 29 004 (100%) | 411 668 (100%) | 40 801 (100%) | 559 471 (100%) | 1 319 358 (100%) |

Table 2.3 Community age structures

Note: Excludes overseas visitors.

Data source: ABS (1996)

Prepared by: EBC (1999)

Table 2.4 shows that since 1986, there has been an increase in the number of residents over 40 years of age and some decline in the number of residents between 18 and 39 and below 12 years of age within the West RFA region.

| Age | Life cycle stage | 1986 | 1991 | 1996 |
|-------|-----------------------|--------------------|--------------------|--------------------|
| 0-4 | Pre-School | 45 179 (8.3%) | 49 899 (8.4%) | 49 063 (7.8%) |
| 5–12 | Primary School | 75 791 (13.9%) | 79 860 (13.4%) | 81 466 (13.0%) |
| 13–17 | High School | 64 707 (9.5%) | 63 210 (10.6%) | 63 364 (10.1%) |
| 18–24 | Young singles/couples | 51 530 (11.8%) | 49 924 (8.4%) | 49 500 (7.9%) |
| 25–39 | Young/middle families | 130 153 (24.1%) | 140 493 (23.6%) | 139 071 (22.2%) |
| 40-49 | Mature families | 57 865 (10.6%) | 77 554 (13.0%) | 91 999 (14.7%) |
| 50–64 | Pre-retirement | 69 019 (12.6%) | 71 838 (12.1%) | 80 326 (12.8%) |
| 65+ | Elderly | 52 572 (9.6%) | 61 103 (10.3%) | 69 925 (11.2%) |
| Total | | 546 816 (100%) | 593 881 (100%) | 624 984 (100%) |



Note: Excludes overseas visitors. Data source: ABS (1996) Prepared by: EBC (1999)

2.4.3 Education

Table 2.5 shows the age residents left school and the type of educational institution they are currently attending. There is little difference in the educational profile of the population within the West RFA region to that of the population within rural Victoria. There is also little variation across each of the four sub-regions in relation to the educational profiles of residents. There is an indication of a higher percentage of residents attending universities or other tertiary institutions within the Midlands subregion when compared to other sub-regions within the West RFA.

Table 2.5 **Educational profiles**

| Education | Portland | Horsham | Midlands | Otway | West RFA | Rural Victoria |
|---|----------|---------|----------|---------|----------|-------------------|
| Education | | | | | | |
| Left school under 15 years | 10 890 | 3 867 | 52 805 | 5 502 | 73 064 | 182 676 |
| | (17.8%) | (16.9%) | (17.0%) | (17.4%) | (17.1%) | (17.7%) |
| Did not go to school | 125 | 171 | 1 217 | 232 | 1 745 | 3 796 |
| | (0.2%) | (0.7%) | (0.4%) | (0.7%) | (0.4%) | (0.4%) |
| Total aged 15+ | 61 227 | 22 830 | 311 513 | 31 535 | 427 105 | 1 028 774 |
| | (100%) | (100%) | (100%) | (100%) | (100%) | (100%) |
| Type of educational institution attending | | | | | | |
| Pre-Primary | 1 152 | 379 | 6 473 | 547 | 8 551 | 19 644 |
| | (1.5%) | (1.4%) | (1.6%) | (1.4%) | (1.6%) | (1.5%) |
| Primary | 8 339 | 2 985 | 48 101 | 4 576 | 64 001 | 143 053 |
| | (11.0%) | (10.6%) | (12.0%) | (11.7%) | (11.8%) | (11.2%) |
| Secondary | 6 253 | 2 147 | 34 894 | 3 147 | 46 441 | 106 811 |
| | (8.2%) | (7.7%) | (8.7%) | (8.1%) | (8.6%) | (8.4%) |
| TAFE | 1 868 | 532 | 8 864 | 441 | 11 705 | 27 467 |
| | (2.5%) | (1.9%) | (2.2%) | (1.1%) | (2.2%) | (2.2%) |
| University or other tertiary | 1 784 | 333 | 12 491 | 420 | 15 028 | 29 418 |
| | (2.3%) | (1.2%) | (3.1%) | (1.1%) | (2.8%) | (2.3%) |
| Other | 229 | 86 | 2 130 | 168 | 2 613 | 5 362 |
| | (0.3%) | (0.3%) | (0.5%) | (0.4%) | (0.5%) | (0.4%) |
| Not attending | 56 458 | 21 600 | 286 869 | 29 758 | 394 685 | 944 460 |
| | (74.2%) | (77.0%) | (71.7%) | (76.2%) | (72.7%) | (74.0%) |
| Total ¹ | 76 083 | 28 062 | 399 822 | 39 057 | 543 024 | 1 276 215 |
| | (100%) | (100%) | (100%) | (100%) | (100%) | (100%) |

Note: Based on persons aged 15 years and over

¹Excludes overseas visitors and persons not indicating an institution attending.

Data source: ABS (1996)

Prepared by: EBC (1999)

Although there is no comparable inter-census information on the age residents left school, Table 2.6 shows the percentage of residents attending different types of educational institutions between 1986 and 1996. This table shows that although there has been some decline during the last 10 years in the number of residents attending pre-primary, primary and secondary educational institutions, there has nevertheless been an increase in the number of residents attending TAFE and universities.

| Type attending | 1986 | 1991 | 1996 |
|------------------------------|---------|---------|---------|
| Pre-Primary | 10 287 | 9 311 | 9 073 |
| | (2.1%) | (1.6%) | (0.5%) |
| Primary | 61 570 | 64 346 | 67 503 |
| | (12.3%) | (1.4%) | (1.4%) |
| Secondary | 48 921 | 50 803 | 50 710 |
| | (9.8%) | (9.0%) | (8.6%) |
| TAFE | 7 843 | 10 533 | 12 820 |
| | (1.6%) | (1.9%) | (2.2%) |
| University or other tertiary | 7 451 | 14 843 | 16 999 |
| | (1.5%) | (1.6%) | (2.9%) |
| Other | 2 262 | 3 614 | 2 932 |
| | (0.5%) | (0.6%) | (0.5%) |
| Not attending | 361 279 | 411 233 | 430 922 |
| | (72.3%) | (72.8%) | (72.9%) |
| Total ¹ | 499 613 | 564 683 | 590 959 |
| | (100%) | (100%) | (100%) |

Table 2.6 Time series: educational profiles

Note: Based on persons aged 15 years and over ¹Excludes overseas visitors and persons not indicating an institution attending.

Data source: ABS (1996) Prepared by: EBC (1999)

2.4.4 Place of birth

Table 2.7 shows that 87% of residents within the West RFA region were Australian born, with 6% born in English speaking countries and the remaining 7% born in non-English speaking countries. The percentage of residents born overseas was slightly higher (13%) than the average in rural Victoria (10%). Across sub-regions there was significant variation in place of birth, with 16% of the population in the Midlands being born overseas, compared to 13% for the West RFA and 10% for Rural Victoria.

| Discs of hinth | Dortland | Lloroboro | Midlondo | Otwor | Most DEA | Rural |
|--------------------|----------|-----------|----------|-------------|----------|-----------|
| Place of birth | Portiano | Horsnam | Midiands | Otway | West RFA | victoria |
| Australian born | 72 589 | 27 055 | 340 388 | 37 337 | 477 369 | 1 164 518 |
| | (04 194) | (04.0%) | (02.0%) | 02 /0/ | (96 694) | (00.0%) |
| | (94.170) | (74.770) | (03.770) | 73.470 | (00.070) | (07.070) |
| Overseas born | 4 585 | 1 460 | 65 091 | 2 656 | 73 792 | 132 805 |
| | (5.0%) | (5.1%) | (16.0%) | 6 6% | (13,1%) | (10.2%) |
| | (3.770) | (3.170) | (10.070) | 0.070 | (13.470) | (10.270) |
| English speaking | 2 964 | 861 | 28 672 | 1 609 | 34 106 | 65 530 |
| 5 1 5 | (3.8%) | (3.0%) | (7.1%) | 1.0% | (6.2%) | (5.1%) |
| | (3.070) | (3.070) | (7.170) | 4.070 | (0.270) | (3.170) |
| Other countries | 1 621 | 599 | 36 419 | 1 047 | 39 686 | 67 275 |
| | (2.1%) | (2.1%) | (9.0%) | 2.6% | (7.2%) | (5.2%) |
| | (2.170) | (2.170) | (7.070) | 2.070 | (7.270) | (0.270) |
| Total ¹ | 77 174 | 28 515 | 405 479 | 39 993 | 551 161 | 1 297 323 |
| | (100%) | (100%) | (100%) | (100%) | (100%) | (100%) |
| 1 | (| (| () = / | () = . = / | (| (|

¹Excludes overseas visitors and persons not indicating country of birth.

Data source: ABS (1996) Prepared by: EBC (1999)

Overall, Table 2.8 shows little change in the percentage of Australian and overseas born residents within the West RFA between 1986 and 1996.

| Place of birth | 1986 | 1991 | 1996 |
|-----------------------|---------|---------|---------|
| Australian born | 461 682 | 502 316 | 518 338 |
| | (87.2%) | (86.3%) | (86.4%) |
| Overseas born | 67 851 | 79 492 | 81 705 |
| | (12.8%) | (13.6%) | (13.6%) |
| Main English speaking | 33 999 | 38 462 | 37 870 |
| | (6.7%) | (6.6%) | (6.3%) |
| Other countries | 33 852 | 41 030 | 43 835 |
| | (6.4%) | (7.0%) | (7.3%) |
| Total | 529 533 | 582 108 | 600 043 |
| | (100%) | (100%) | (100%) |

Table 2.8Time series: place of birth

Note: Based on persons aged 15 years and over

¹Excludes overseas visitors and persons not indicating a country of birth. Data source: ABS (1996).

Prepared by: EBC (1996).

2.4.5 Aboriginal and Torres Strait Islander origin

Table 2.9 shows the Aboriginal and Torres Strait Islander population for the West RFA region and specific sub-regions. Within the West RFA region there were 3194 persons of Aboriginal and Torres Strait Islander origin, which represented approximately 0.6% of the total population. The highest concentration of Aboriginal and Torres Strait Islanders was found in the Portland (0.8%) and Horsham (0.9%) sub-regions.

Table 2.9 Aboriginal and Torres Strait Islander origin

| Aboriginal and Torres Strait | | | | | | Rural |
|------------------------------|----------|---------|----------|--------|----------|-----------|
| Islander | Portland | Horsham | Midlands | Otway | West RFA | Victoria |
| ATSI origin | 645 | 259 | 2 097 | 193 | 3 194 | 13 266 |
| - | (0.8%) | (0.9%) | (0.5%) | (0.5%) | (0.6%) | (1.0%) |
| Total population | 79 838 | 29 337 | 419 496 | 41 517 | 570 188 | 1 344 352 |
| | (100%) | (100%) | (100%) | (100%) | (100%) | (100%) |
| Data any ADC (100() | | | | | | |

Data source: ABS (1996) Prepared by: EBC(1999)

Table 2.10 shows that between 1986 and 1996 there has been a gradual increase in the Aboriginal and Torres Strait Islander population relative to the population within the West RFA region, rising from 0.3% of the population in 1986 to 0.6% of the population in 1996.

Table 2.10 Time series: Aboriginal and Torres Strait Islander origin

| Aboriginal and Torres Strait Islander | 1986 | 1991 | 1996 |
|---------------------------------------|----------|----------|----------|
| ATSI origin | 1 785 | 2 724 | 3 485 |
| | (0.3%) | (0.5%) | (0.6%) |
| Total | 536 144 | 591 237 | 619 118 |
| | (100.0%) | (100.0%) | (100.0%) |
| | | | |

Data source: ABS (1996) Prepared by: EBC(1999)

2.5 Education, health and human services

2.5.1 Health and human services

The Victorian Department of Human Services has nine service regions throughout Victoria, the West region is covered by two areas. The Barwon-South Western Regional Service is wholly within the RFA region and covers the majority of the area. The regional service is based in Geelong and has offices in Colac, Hamilton, Portland and Warrnambool. The remaining areas are covered by the Grampians Service Region, with offices in Ballarat.

The Colac Community Health Service (CCHS) spends more than 50 per cent of their budget on acute care, about 25–30 per cent for primary care (ie community health, drug and alcohol counselling, problem gambling) and the remainder on aged residential care. The CCHS has recently received about \$1.8 million of new money for primary care, including women's health, domestic violence against children, financial assistance and the dental clinic.

The West region is well serviced by public and private hospitals, health centres and support agencies. The public hospitals and health centres are listed below:

West Public Health Care Services

- Ballarat Health Service
- Beaufort and Skipton Health Service
- Casterton Memorial Hospital
- Colac Community Health Services
- Coleraine District Hospital

- Corangamite regional Hospital Services Port Fairy Hospital
- Djerriwarrh Health Service—Bacchus Marsh
- Dunmunkle Health Service—Rupanyup
- East Grampians Health Service
- Edenhope and District Hospital
- Hepburn Health Service
- Hesse Rural Health Service
- Heywood and District Memorial Hospital
- Lorne Community Hospital
- Otway Health and Community Services
- Stawell District Hospital
- Terang and Mortlake Health Service
- Timboon and District Health Care Service
- Warrnambool and District Base Hospital
- Western District Health Service—Hamilton
- Wimmera Health Care Service—Horsham

Source: Department of Human Services website, May 1999.

In recent years, State government policy has been to reform mental health in Victoria. The reform has primarily focused on restructuring mental health services from large psychiatric institutions to that of providing treatment through generic hospitals and local community based services.

The Rural Healthstreams Program began in 1996–97 to assist small rural communities to be able to provide a broader range of services. Twenty-one communities have now been assisted, seven of these are in the Barwon-South Western Region.

To understand rural issues, cross-regional Rural Health Services Forums were held throughout 1998, including one in Stawell, to improve service planning and local management.

Koorie liaison services are available at some of the hospitals in the region, including the Warrnambool and District Base Hospital, which aims to assist Aboriginal patients with health and associated issues. The service is part of the Koorie Services Improvement Strategy which aims to provide an opportunity for Koorie people to be involved in the development and delivery of services to their community.

2.5.2 Education

The Department of Education has two regional areas in the West region: Barwon South Western and the Central Highlands Wimmera (partly in the West region).

The Barwon South Western region has the largest student numbers outside of Melbourne with 42 838 students, in 155 schools (both primary and secondary). The Central Highland Wimmera has the lowest student numbers with 26 760 students, in 137 schools, as it covers some of the least populated areas of Victoria. Recent reforms to the Victorian education system, have focused on improving the quality of schools, teaching, facilities and equipment. Victoria currently spends less per student on central administration and other out-of-school costs than any other State or Territory in Australia.

The student-teacher ratio for Victorian schools in 1997 is listed in Table 2.11, the overall ratio was 15.2 students per teacher. Also listed is the student-computer ratio. One of the strategic priorities for 1998–99 is to maximise the use of information technology and multimedia in both service delivery and corporate management across all regions.

Table 2.11 Student ratios for Victorian schools

| School level | Student–teacher ratio (per teacher) | Student–computer ratio (per computer) |
|--------------|--|--|
| Primary | 17.9 students | 8.4 students |
| Secondary | 12.4 students | 5.4 students |
| | | |

Source: Annual Report Department of Education 1997-98

One of the Department of Education's main aims is to improve the delivery of higher education in regional Victoria. There are now nine publicly funded universities throughout Victoria, including several in the West region listed in Table 2.12. The West region has a number of TAFE colleges with several campuses, ie the South West Institute of TAFE based in Warrnambool also has annexes in Hamilton and Portland.

Table 2.12 Universities in the West region

| Institute | Campus location(s) |
|--|-------------------------------------|
| Deakin University | Geelong and Warrnambool |
| Ballarat University | Ballarat |
| Australian Catholic University | Ballarat |
| University of Melbourne/Institute of Land and Food Resources | Creswick, Glenormiston, Longerenong |

The Adult, Community and Further Education (ACE) program aims to encourage lifelong learning through community-based education. The Barwon South Western region accounts for 6.3% of all Victorian enrolments, and has over 54 service provides. In 1997–98:

- enrolments within the region rose 4 per cent;
- twenty-three providers were assisted with hardware, software and training to access the Internet;
- a regional web page was developed; and
- a regional conference was held in Warrnambool attended by representatives from 32 service providers.

The Central Highlands Wimmera region accounted for 6.7% of all state enrolments, and has over 41 service providers. In 1997–98:

• enrolment in community based providers rose by 1.5 per cent, while Access and Vocational enrolments rose by 11.9 per cent;

- eleven more ACE centres connected to the regional Internet network; and
- the Disability Support Fund was established to assist providers in meeting the needs of disabled students.

In addition, all Regional Councils developed Koorie Education Strategies, with over 1000 Koorie enrolments in ACE programs around Victoria in 1997. In addition a number of specific Koorie program were supported, including the development and accreditation of new curriculum, a Certificate in Koorie Education.

2.6 Economic

2.6.1 Labour force participation

Table 2.13 shows the unemployment rate within the West RFA region to be 9.2%, which is somewhat lower than that of 10.2% found in rural Victoria. Across each of the four sub-regions the unemployment rate varied from 7.3% and 7.6% in the Otway and Horsham sub-regions to 9.4% and 9.5% in the Portland and Midlands sub-regions. Amongst males the unemployment rate reached 9.9% within the Midlands sub-region and 9.5% within the Portland sub-region. Labour force participation rates varied between 58% in the Otway sub-region to 62% in the Midlands.

| | | | | | | Rural |
|---|----------|---------|----------|---------|----------|----------|
| Labour force status | Portland | Horsham | Midlands | Otway | West RFA | Victoria |
| Employed | | | | | | |
| Males | 19 059 | 7 126 | 99 744 | 9 961 | 135 890 | 308 677 |
| Females | 14 080 | 5 284 | 75 308 | 7 155 | 101 827 | 230 659 |
| Total | 33 139 | 12 410 | 175 052 | 17 116 | 237 717 | 539 336 |
| Unemployed | | | | | | |
| Males | 2 004 | 634 | 11 013 | 845 | 14 496 | 37 423 |
| Unemployment rate ¹ | (9.5%) | (8.2%) | (9.9%) | (7.8%) | (9.6%) | (10.8%) |
| Females | 1 432 | 386 | 7 409 | 494 | 9 721 | 23 546 |
| Unemployment rate ¹ | (9.2%) | (6.8%) | (8.9%) | (6.5%) | (8.7%) | (9.3%) |
| Total | 3 436 | 1 020 | 18 422 | 1 339 | 24 217 | 60 969 |
| Unemployment rate ¹ | (9.4%) | (7.6%) | (9.5%) | (7.3%) | (9.2%) | (10.2%) |
| Total labour force | | | | | | |
| Males | 21 063 | 7 760 | 110 757 | 10 806 | 150 386 | 346 100 |
| Labour force participation ² | (70.3%) | (69.6%) | (72.6%) | (69.1%) | (71.8%) | (70.3%) |
| Females | 15 512 | 5 670 | 82 717 | 7 649 | 111 548 | 254 205 |
| Labour force participation ² | (49.6%) | (48.5%) | (52.1%) | (48.1%) | (51.2%) | (49.6%) |
| Total | 36 575 | 13 430 | 193 474 | 18 455 | 261 934 | 600 305 |
| Labour force participation ² | (59.7%) | (58.8%) | (62.1%) | (58.5%) | (61.3%) | (59.8%) |
| Not in labour force ³ | | | | | | |
| Males | 8 221 | 3 195 | 37 790 | 4 394 | 53 600 | 146 092 |
| Females | 15 104 | 5 848 | 72 594 | 7 838 | 101 384 | 257 805 |
| Total | 23 325 | 9 043 | 110 384 | 12 232 | 154 984 | 403 897 |

Table 2.13 Labour force participation

¹Number of unemployed males, females or total expressed as a percentage of the labour force. ²Number of males, females or persons in the labour force expressed as a percentage of the total males, females or persons aged 15

³Excludes occupations inadequately described or not stated. Data source: ABS (1996).

Prepared by: EBC(1999)

The unemployment rate for the population within the West RFA region has increased from 7.0% in 1986 to 9.7% in 1996. As shown in Table 2.14, this has primarily been due to a four per cent increase in the unemployment rate for males during the ten-year period, as compared to only a one per cent increase in the unemployment rate amongst

years or over.

females. While there has been overall a 9% increase in the labour force participation rate within the population during the past 10 years, this is primarily due to a 5% rise in female labour force participation and compared to a 3% decrease in male labour force participation.

| Labour force participation | 1986 | 1991 | 1996 |
|---|---------|---------|---------|
| Employed | | | |
| Males | 135 008 | 139 789 | 145 461 |
| Females | 82 142 | 99 560 | 109 128 |
| Total | 217 150 | 239 349 | 254 589 |
| Unemployed | | | |
| Males | 9 254 | 19 325 | 16 665 |
| Unemployment rate ¹ | (6.4%) | (12.1%) | (10.3%) |
| Females | 7 471 | 11 675 | 11 087 |
| Unemployment rate ¹ | (8.3%) | (10.5%) | (9.2%) |
| Total | 16 725 | 31 000 | 27 752 |
| Unemployment rate ¹ | (7.0%) | (11.5%) | (9.7%) |
| Total labour force | | | |
| Males | 144 262 | 159 114 | 162 126 |
| Labour force participation ² | (73.9%) | (73.4%) | (70.6%) |
| Females | 89 613 | 111 235 | 120 215 |
| Labour force participation ² | (44.9%) | (49.4%) | (50.0%) |
| Total | 233 875 | 270 349 | 282 341 |
| Labour force participation ² | (59.2%) | (61.1%) | (60.1%) |
| Not in labour force ³⁾ | | | |
| Males | 46 959 | 53 553 | 61 671 |
| Females | 105 452 | 107 910 | 115 024 |
| Total | 152 411 | 161 463 | 176 695 |

Table 2.14 Time series: labour force participation

¹Number of unemployed males, females or total expressed as a percentage of the labour force.

²Number of males, females or persons in the labour force expressed as a percentage of the total males, females or persons aged 15 years or over.

years or over. ³Excludes occupations inadequately described or not stated. Data source: ABS (1996)

Prepared by: EBC(1999)

2.6.2 Industry sector employment

Table 2.15 shows a profile of employment by industry sector. With the exception of lower employment in agriculture, forestry and fishing, the profile for the West RFA region is similar to that found in rural Victoria, with the highest percentage of employment being in manufacturing followed by retail trade.

In relation to each of the four sub-regions there are numerous differences in the industry employment profiles. Of particular note when making relative comparisons across sub-regions is (a) the high levels of employment in agriculture, forestry and fishing in the Otway sub-region, (b) high levels employment in manufacturing in the Midlands sub-regions and (c) high levels of employment associated with health and community services in the Horsham sub-region.

Table 2.15 Employment in industry sector

| Industry sector | Portland | Horsham | Midlands | Otway | West RFA | Rural Victoria |
|---------------------------------------|----------|----------|----------|----------|----------|-------------------|
| Agriculture, forestry and fishing | 6 254 | 1 918 | 6 333 | 4 922 | 19 427 | 69 586 |
| | (19.3%) | (15.9%) | (3.7%) | (29.4%) | (8.4%) | (13.1%) |
| Mining | 64 | 162 | 525 | 36 | 787 | 2 574 |
| | (0.2%) | (1.3%) | (0.3%) | (0.2%) | (0.3%) | (0.5%) |
| Manufacturing | 3 824 | 1 250 | 29 702 | 1 970 | 36 746 | 72 110 |
| | (11.8%) | (10.4%) | (17.5%) | (11.8%) | (15.9%) | (13.6%) |
| Electricity, gas and water supply | 188 | 180 | 1 219 | 150 | 1 737 | 7 361 |
| | (0.6%) | (1.5%) | (0.7%) | (0.9%) | (0.8%) | (1.4%) |
| Construction | 1 870 | 609 | 11 727 | 872 | 15 078 | 31 306 |
| | (5.8%) | (5.1%) | (6.9%) | (5.2%) | (6.5%) | (5.9%) |
| Wholesale trade | 1 704 | 606 | 9 695 | 705 | 12 710 | 25 417 |
| | (5.3%) | (5.0%) | (5.7%) | (4.2%) | (5.5%) | (4.8%) |
| Retail trade | 4 901 | 1 859 | 24 461 | 1 976 | 33 197 | 77 109 |
| | (15.1%) | (15.4%) | (14.4%) | (11.8%) | (14.4%) | (14.6%) |
| Accommodation, cafes and restaurants | 1 445 | 563 | 6 302 | 737 | 9 047 | 25 446 |
| | (4.5%) | (4.7%) | (3.7%) | (4.4%) | (3.9%) | (4.8%) |
| Transport and storage | 936 | 409 | 10 099 | 486 | 11 930 | 18 139 |
| | (2.9%) | (3.4%) | (6.0%) | (2.9%) | (5.2%) | (3.4%) |
| Communication services | 445 | 199 | 3 767 | 177 | 4 588 | 8 116 |
| | (1.4%) | (1.7%) | (2.2%) | (1.1%) | (2.0%) | (1.5%) |
| Finance and insurance | 642 | 247 | 5 929 | 257 | 7 075 | 12 643 |
| | (2.0%) | (2.1%) | (3.5%) | (1.5%) | (3.1%) | (2.4%) |
| Property and business services | 1 567 | 545 | 13 363 | 562 | 16 037 | 30 835 |
| | (4.8%) | (4.5%) | (7.9%) | (3.4%) | (7.0%) | (5.8%) |
| Government administration and defence | 1 142 | 442 | 7 962 | 549 | 10 095 | 22 717 |
| | (3.5%) | (3.7%) | (4.7%) | (3.3%) | (4.4%) | (4.3%) |
| Education | 2 509 | 918 | 11 851 | 1 079 | 16 357 | 40 100 |
| | (7.8%) | (7.6%) | (7.0%) | (6.4%) | (7.1%) | (7.6%) |
| Health and community services | 3 371 | 1 525 | 16 195 | 1 605 | 22 696 | 52 747 |
| | (10.4%) | (12.7%) | (9.6%) | (9.6%) | (9.8%) | (10.0%) |
| Cultural and recreation services | 471 | 180 | 3 730 | 172 | 4 553 | 9 116 |
| | (1.5%) | (1.5%) | (2.2%) | (1.0%) | (2.0%) | (1.7%) |
| Personal and other services | 1 020 | 425 | 6 528 | 490 | 8 463 | 17 701 |
| | (3.2%) | (3.5%) | (3.9%) | (2.9%) | (3.7%) | (3.3%) |
| Total ¹ | 32 353 | 12 037 | 169 388 | 16 745 | 230 523 | 529 519 |
| | (100.0%) | (100.0%) | (100.0%) | (100.0%) | (100.0%) | (100.0%) |
| Note: | | | | | | |

¹Excludes persons not indicating an industry sector or an unclassifiable industry sector.

Data source: ABS (1996)

Prepared by: EBC(1999)

Employment by industry sector during the last 10 years is shown in Table 2.16. Consistent and significant increases in employment are found in the retail trade; accommodation, cafe and restaurant; property and business services, health and community service; cultural and recreational services and personal service sectors. On the other hand, consistent and significant decreases in employment are found in the agriculture, forestry and fishing; manufacturing, electricity, gas and water supply; and education sectors.

| Employment in industry sector | 1986 | 1991 | 1996 |
|---------------------------------------|---------|---------|---------|
| Agriculture, forestry and fishing | 23 821 | 20 029 | 20 408 |
| | (11.4%) | (9.0%) | (8.3%) |
| Mining | 677 | 810 | 796 |
| Manufacturing | 36 562 | 36 670 | 40 026 |
| | (17.5%) | (16.5%) | (16.2%) |
| Electricity, gas and water supply | 3 482 | 2 848 | 1 980 |
| | (1.7%) | (1.3%) | (0.8%) |
| Construction | 14 527 | 13 377 | 15 792 |
| | (6.9%) | (6.0%) | (6.4%) |
| Wholesale trade | 9 153 | 12 198 | 13 081 |
| | (4.4%) | (5.5%) | (5.3%) |
| Retail trade | 29 020 | 32 032 | 36 832 |
| | (13.9%) | (14.4%) | (14.9%) |
| Accommodation, cafes and restaurants | 5 684 | 7 884 | 10 023 |
| | (2.7%) | (3.5%) | (4.1%) |
| Transport and storage | 11 369 | 11 084 | 11 678 |
| | (5.4%) | (5.0%) | (4.7%) |
| Communication services | 3 929 | 3 942 | 4 699 |
| | (1.9%) | (1.8%) | (1.9%) |
| Finance and insurance | 6 957 | 8 241 | 7 226 |
| | (3.3%) | (3.7%) | (2.9%) |
| Property and business services | 8 454 | 11 054 | 17 054 |
| | (4.0%) | (5.0%) | (6.9%) |
| Government administration and defence | 12 539 | 13 268 | 10 546 |
| | (6.0%) | (6.0%) | (4.3%) |
| Education | 16 015 | 17 390 | 18 063 |
| | (7.7%) | (7.8%) | (7.3%) |
| Health and community services | 18 441 | 21 319 | 24 743 |
| | (8.8%) | (9.6%) | (10.0%) |
| Cultural and recreational services | 2 471 | 3 086 | 4 797 |
| | (1.2%) | (1.4%) | (1.9%) |
| Personal and other services | 5 950 | 7 548 | 9 112 |
| | (2.8%) | (3.4%) | (3.7%) |
| Total | 209 051 | 222 780 | 246 856 |
| | (100%) | (100%) | (100%) |

| Table 2 16 | Time series. | employment | in | industry | sector |
|------------|--------------|------------|----|----------|--------|
| | Time series. | employment | | muustiy | Sector |

Note: Based on persons aged 15 years and over. Excludes overseas visitors and persons not indicating a country of birth. Data source: ABS (1996)

Prepared by: EBC(1999)

2.6.3 Occupational structure

Table 2.17 shows similar percentage of white and blue collar workers in the West RFA region when compared to rural Victoria. However, there were significant differences in the percentage of white and blue collar workers across each of the four sub-regions. For example, the Midlands sub-region had the lowest percentage of managers and administrators (8%) but the highest percentage of intermediate clerical and sales workers. On the other hand, the Midlands sub-region had the highest percentage of trades and related workers and intermediate production and transport workers when compared to other sub-regions.

| Table 2.17 | Occupational | structure |
|------------|--------------|-----------|
|------------|--------------|-----------|

| Occupational structure | Portland | Horsham | Midlands | Otway | West RFA | Rural Victoria |
|-------------------------------|----------|----------|----------|----------|----------|-------------------|
| White collar | | | | 2002 | | |
| Managers and administrators | 6 093 | 2 016 | 14 354 | 4 367 | 26 830 | 77 203 |
| | (18.9%) | (16.7%) | (8.4%) | (26.3%) | (11.6%) | (14.7%) |
| Professionals | 4 304 | 1 749 | 24 942 | 1 962 | 32 957 | 75 534 |
| | (13.3%) | (14.5%) | (14.7%) | (11.8%) | (14.3%) | (14.4%) |
| Associate professionals | 3 456 | 1 503 | 20 054 | 1 694 | 26 707 | 60 908 |
| | (10.7%) | (12.4%) | (11.8%) | (10.2%) | (11.6%) | (11.6%) |
| Advanced clerical and service | 884 | 351 | 7 226 | 372 | 8 833 | 17 291 |
| workers | (2.7%) | (2.9%) | (4.3%) | (2.2%) | (3.8%) | (3.3%) |
| Intermediate clerical, sales | 3 889 | 1 503 | 28 508 | 1 648 | 35 548 | 70 108 |
| workers | (12.0%) | (12.4%) | (16.8%) | (9.9%) | (15.4%) | (13.4%) |
| Elementary clerical, sales | 2 953 | 1 151 | 15 971 | 1 180 | 21 255 | 46 000 |
| workers | (9.1%) | (9.5%) | (9.4%) | (7.1%) | (9.2%) | (8.8%) |
| Sub total | 21 579 | 8 273 | 111 055 | 11 223 | 152 130 | 347 044 |
| | (66.9%) | (68.5%) | (65.3%) | (67.5%) | (65.9%) | (66.2%) |
| Blue collar | | | | | | |
| Tradespersons and related | 4 278 | 1 511 | 26 498 | 1 937 | 34 224 | 73 321 |
| workers | (13.3%) | (12.5%) | (15.6%) | (11.7%) | (14.8%) | (14.0%) |
| Intermediate production and | 2 764 | 1 016 | 17 887 | 1 345 | 23 012 | 48 925 |
| transport workers | (8.6%) | (8.4%) | (10.5%) | (8.1%) | (10.0%) | (9.3%) |
| Labourers and related workers | 3 657 | 1 286 | 14 521 | 2 110 | 21 574 | 54 755 |
| | (11.3%) | (10.6%) | (8.5%) | (12.7%) | (9.3%) | (10.4%) |
| Sub total | 10 699 | 3 813 | 58 906 | 5 392 | 78 810 | 177 001 |
| | (33.1%) | (31.5%) | (34.7%) | (32.5%) | (34.1%) | (33.8%) |
| Total ¹ | 32 278 | 12 086 | 169 961 | 16 615 | 230 940 | 524 045 |
| | (100.0%) | (100.0%) | (100.0%) | (100.0%) | (100.0%) | (100.0%) |

¹Excludes occupations inadequately described or not stated. Data source: ABS (1996)

Prepared by: EBC(1999).

The time series analysis of occupational structure within the West RFA region, shows a consistent pattern of increasing employment amongst white collar workers and decreasing employment amongst blue collar workers (Table 2.18). The increase in white collar employment occurs primarily within the professional, associate professionals and intermediate clerical, sales and service workers sectors, while the decrease in blue collar employment is across all employment sectors.

| Occupation | 1986 | 1991 | 1996 |
|--|----------|----------|----------|
| White collar | | | |
| Managers and administrators | 27 331 | 29 254 | 28 186 |
| | (13.0%) | (13.1%) | (11.4%) |
| Professionals | 27 530 | 30 936 | 35 681 |
| | (13.1%) | (13.9%) | (14.4%) |
| Associate professionals | 16 307 | 18 799 | 28 487 |
| | (7.7%) | (8.4%) | (11.5%) |
| Advanced clerical and service workers | 11 503 | 12 677 | 9 065 |
| | (5.5%) | (5.7%) | (3.7%) |
| Intermediate clerical, sales and service workers | 20 437 | 25 612 | 37 494 |
| | (9.7%) | (11.5%) | (15.2%) |
| Elementary clerical, sales and service workers | 23 589 | 25 614 | 23 377 |
| | (11.2%) | (11.5%) | (9.5%) |
| Sub total | 126 697 | 142 892 | 162 290 |
| | (60.1%) | (64.0%) | (65.6%) |
| Blue collar | | | |
| Tradespersons and related workers | 36 272 | 36 345 | 36 823 |
| | (17.2%) | (16.3%) | (14.9%) |
| Intermediate production and transport workers | 24 004 | 22 079 | 24 957 |
| | (11.4%) | (9.9%) | (10.1%) |
| Labourers and related workers | 23 801 | 21 918 | 23 273 |
| | (11.3%) | (9.8%) | (9.4%) |
| Sub total | 84 077 | 80 342 | 85 053 |
| | (39.9%) | (36.0%) | (34.4%) |
| Total ¹ | 210 774 | 223 234 | 247 343 |
| | (100.0%) | (100.0%) | (100.0%) |

| Table 2.18 | Time series | occupational | structure |
|------------|--------------|--------------|-----------|
| | Time series. | occupational | Siluciule |

Note: Based on persons aged 15 years and over

¹Excludes occupations inadequately described or not stated.

Data source: ABS (1996) Prepared by: EBC(1999)

2.6.4 Household income

Table 2.19 shows that 21% of residents within the West RFA region have weekly household incomes less than \$299 and that 8% have weekly household incomes above \$1500. In comparison to Rural Victoria there is a lower percentage of households with household incomes less than \$299 and a higher percentage of households with household incomes above \$1500. Across the four sub-regions there is however significant variation in weekly household income, with 19% of households within the Midlands sub-region having household incomes less than \$299 a week, compared to the other sub-regions where 26% of households have incomes less than \$299 a week.

| Income | Portland | Horsham | Midlands | Otway | West RFA | Rural Victoria |
|----------------|------------------|------------------|-------------------|------------------|-------------------|--------------------|
| Low | | | | | | |
| \$1–119 | 328 | 111 | 1 017 | 163 | 1 619 | 8 599 |
| | (1.3%) | (1.1%) | (0.8%) | (1.2%) | (0.9%) | (2.0%) |
| \$120-299 | 6 383 | 2 451 | 22 397 | 3 375 | 34 606 | 106 845 |
| | (24.5%) | (24.9%) | (17.9%) | (25.7%) | (19.9%) | (24.0%) |
| Sub total | 6 711 (25.8%) | 2 562 (26.0%) | 23 414 (18.8%) | 3 538 (26.9%) | 36 225 (20.8%) | 115 444 (26.5%) |
| Middle | (| | | | (| |
| \$300-499 | 5 969 | 2 345 | 22 825 | 3 071 | 34 210 | 95 624 |
| | (22.9%) | (23.8%) | (18.3%) | (23.4%) | (19.7%) | (22.0%) |
| \$500-699 | 4 546 | 1 710 | 20 299 | 2 306 | 28 861 | 71 933 |
| | (17.5%) | (17.4%) | (16.3%) | (17.5%) | (16.6%) | (16.5%) |
| \$700-999 | 4 369 | 1 647 | 25 155 | 2 076 | 33 247 | 73 470 |
| | (16.8%) | (16.7%) | (20.2%) | (15.8%) | (19.1%) | (16.9%) |
| \$1000–1499 | 3 021 | 1 065 | 21 920 | 1 393 | 27 399 | 53 131 |
| | (11.6%) | (10.8%) | (17.6%) | (10.6%) | (15.8%) | (12.2%) |
| Sub total | 17 905 | 6 767 | 90 199 | 8 846 | 123 717 | 294 158 |
| | (68.8%) | (68.8%) | (72.3%) | (67.3%) | (71.2%) | (67.6%) |
| High | | | | | | |
| \$1500-1999 | 810 | 298 | 6 940 | 371 | 8 419 | 14 625 |
| | (3.1%) | (3.0%) | (5.6%) | (2.8%) | (4.8%) | (3.4%) |
| \$2000 or more | 617 | 213 | 4 248 | 394 | 5 472 | 10 598 |
| | (2.4%) | (2.2%) | (3.4%) | (3.0%) | (3.1%) | (2.4%) |
| Sub total | 1 427 | 511 | 11 188 | 765 | 13 891 | 25 223 |
| | (5.5%) | (5.2%) | (9.0%) | (5.8%) | (8.0%) | (5.8%) |
| Total | 26 043 | 9 840 | 124 801 | 13 149 | 173 833 | 434 825 |
| | (100.0%) | (100.0%) | (100.0%) | (100.0%) | (100.0%) | (100.0%) |

Table 2.19 Weekly household income

Note: Excludes overseas visitors and persons not indicating household income. Data source: ABS (1996).

Prepared by: EBC(1999).

2.7 Forest related industries

2.7.1 Hardwood timber industries

In 1997–98 there were 21 hardwood sawmills and 3 pulpwood processors receiving logs from State forests and sawmill residues in the West region, although one of the pulpwood processors has now closed.



Galpin Mill, Horsham

For the hardwood sawmills, around 76 per cent of their total log intake (which includes some residual logs which are processed into sawntimber products) came from State forests located within the West region in 1997–98. The remaining logs received were sourced from State forests located in other RFA regions in Victoria and a small amount (14 per cent) was sourced from private forests within the region. Furthermore, 4 of the sawmills receiving logs from the West region purchased raw wood inputs from other sawmills, from within and outside the West region.

The total value of turnover (or gross value of production) for the hardwood sawmilling industry in the West region is estimated at \$33.3 million in 1997–98.

The hardwood sawmills are involved in a range of sawntimber processing activities, including a high proportion of further processed products such as kiln dried and appearance grade products for both domestic and export markets. The quality and

volume of available sawmill resources, the scale of sawmill operations and further processing capacity largely determine the range of products produced at each mill.

In total, 14 855 cubic metres of seasoned sawntimber was produced from logs sourced from the West region in 1997–98, accounting for 21 per cent of the total sawntimber production of 55 437 cubic metres and 37 per cent of the gross value of timber produced. Of the remaining 79 per cent of hardwood timber produced, scantling (55 per cent) and palings (31 per cent) made up the bulk of unseasoned sawntimber produced in 1997–98.

In 1997–98, residual logs and sawmill residues from the region were processed into pulp for use in paper manufacturing, chipped for export as woodchips and used for hardboard production. Residual logs are those logs arising from integrated sawlog harvesting that are too defective or small to meet sawlog specifications.

The West region accounted for around 12.6 per cent of total State sawlog production and 15.4 per cent of total State residual log production in 1997–98. In 1997–98, the region produced 110 492 cubic metres of sawlog, and 172 235 cubic metres of residual log. Ash sawlog production in the region in 1997–98 was 11 938 cubic metres, and comprised 3 per cent of total State ash sawlog production for that year. The West region produced 98 554 cubic metres of mixed species sawlogs, or around 20.5 per cent of State sawlog production of these species.

The West region contributed around \$5.2 million in log royalties in 1997–98, or 13.2 per cent of total State forest log royalties received in that year. The majority of these royalties were associated with B and C grade sawlogs. In 1997–98, sawlog royalties received from the region were approximately \$3.4 million, while residual log royalties were approximately \$1.6 million.

In addition to royalty payments, in 1997–98 sawmill licence fees for the West region were around \$584 000.

More details on the Hardwood Timber Industries in the West region are provided in Chapter 5 of the Comprehensive Regional Assessment published in August 1999 (Vic RFASC 1999).

2.7.2 Plantations based timber industries

Geographically the West region plantations are found in three main localities namely Portland (53 per cent of plantation area within the region), Ballarat (20 per cent) and Otway (17 per cent). In the past, plantation based industries have been dependent on private and public softwood resources, which are used in the production of sawn timber, particleboard and export woodchips. The softwood industries in the West region are vertically integrated as each of the four companies operating the major sawmills also own plantations and either own or are part owners of woodchip export operations. Midway Pty Ltd also owns a significant area of softwood plantation and sells softwood sawlogs to other processors. Prior to 1990 there were minor hardwood plantations in the West region, but the area under hardwood plantations has been expanding rapidly particularly in the Portland forest management area. To date, little of the hardwood plantation area has been harvested, although the focus of the investments in hardwood plantations is for the export wood chip market.

More details on Plantation-based Timber Industries in the West region are provided in Chapter 6 of the Comprehensive Regional Assessment published in August 1999 (Vic RFASC 1999).

2.7.3 Other native forest use

Forests of the West region supply a range of products and benefits in addition to the sawlog and residual wood. These include minor forest produce such as posts and poles, other hewn timber, firewood, wood chop blocks and specialty timbers, and uses including grazing and apiculture.

Firewood

There is significant demand for firewood from domestic users in the West region, particularly close to urban centres such as Melbourne, Geelong, and Ballarat. Numerous other towns including Bacchus Marsh, Colac, Horsham, Hamilton, Warrnambool and Portland, and rural users across the region also have high demand for firewood. In addition, firewood is supplied to towns outside the region such as Mt Gambier.

Firewood is supplied from designated areas of State forest, Shire roadsides and private property, including areas associated with private plantation establishment. Durable timbers such as River Red Gum (*Eucalyptus camaldulensis*), Yellow Gum (*E. leucoxylon*) and box species are often preferred by firewood collectors because of their higher density. These durable species are generally collected from forests in the north of the region, close to Ararat, Horsham and Casterton and in the Pyrenees State Forest. Other species utilised include Messmate (*E. obliqua*), Brown Stringybark (*E. baxteri*), Scentbark (*E. aromaphloia*), Manna Gum (*E. viminalis*), and peppermint and other foothill forest species collected from State forests near Colac, Portland and Heywood, and in the Wombat, Scarsdale and Enfield State Forests.

Over 100 commercial cutters regularly remove firewood from State forest across the West region. Commercial cutters collect firewood from logging residues following sawlog harvesting or during thinning operations.

Posts, poles, round timbers and other hewn timbers

While a number of commercial cutters supply posts, poles and other hewn timbers to the local market, some land-owners have traditionally met their own requirements under licences issued over nearby forest. Provision of post and pole material varies across the region depending on the availability of durable species in some locations. Limits on the area cut or volumes of minor produce harvested have been introduced in parts of the region, particularly in smaller forest areas around Geelong and in the Pyrenees State Forest.

Specialty timbers and craftwood

Species such as River Red Gum, Blackwood, Satinwood and Cherry Ballart produce timber with attractive colour and figure, making them sought after for use in, for example, furniture manufacturing and wood-turning.

In the West, the market for specialty timbers is small, and is variable depending on the availability of suitable species. Specialty timbers and craftwood, with the exception of Blackwood in the Otway Ranges, are generally obtained by small sawmills, local producers and individuals. Blackwood sawlogs are an important specialty timber resource of mountain forests in the south of the region. In the Otway forest management area (FMA), these sawlogs are generally a product of normal harvesting operations

Grazing

Sheep grazing has a long association with public land in the West region, dating back to the mid -late 1800s. Grazing activities are carried out throughout the year and usually as an adjunct to private property. Graziers must obtain a licence to graze cattle or other livestock on public land. Currently, over 1 000 grazing licences are issued in the West. These licences are issued subject to conditions in accordance with the relevant legislation under which the land is managed. Grazing licences issued in the West during 1997–98 returned \$175 700 in royalties to NRE.

Near Ballarat, Colac and Geelong, grazing on forested public land is mostly restricted to small allotments on the edge of townships. However, larger areas of Red Gum forest near Balmoral, Woohlpooer and on the western Black Range are used for grazing sheep for wool production.

Grazing on public land may be economically significant for individual farmers, supplementing grazing on freehold land, although it is not possible to quantify the contribution that public forests make to agricultural industries.

Apiculture

Apiarists use forests of the West region for honey production. Eucalypt forests including species such as Yellow Box, Yellow Gum, River Red Gum, Messmate, Brown Stringybark, Manna Gum, Red Box and Red Stringybark are particularly valuable.

Apiculture on public land is controlled through the issue of annual licences for annual sites and temporary permits (3 and 6 months) for temporary bee sites. Licences and permits allow access to a site for locating hives and use of forest nectar and pollen resources within a radius of 1.6 km or 0.8 km for annual and temporary sites respectively. Currently, there are 108 annual bee sites and 434 temporary bee sites

licensed in the West region. There are numerous other temporary sites in the region which are not currently licensed.

In 1997–98, NRE received approximately \$38 000 in royalties from apiary licences and permits in the West. However, these royalties represent only part of the economic value derived from beekeeping activities. Honey is the major product of the Victorian apiary industry, of which approximately half is exported. Other produce includes beeswax, pollen and royal jelly. Pollination of food and seed crops is an external benefit of apiculture.

Other produce

Presently there is low demand for other forest produce such as floral arrangement material, eucalyptus oil, tea-tree stakes, sawdust, bark and live plant specimens. Protected flora species can only be taken from public land by permit under the *Flora and Fauna Guarantee Act 1988*. A permit for harvesting of minor forest produce and payment of a royalty is usually required.

NRE employs contractors to collect seed for regeneration of logging coupes. In addition, quantities of seed are collected by private companies and other organisations under permit and a royalty is paid by capsule weight.

More details on Other Native Forest Uses in the West region are provided in Chapter 7 of the Comprehensive Regional Assessment published in August 1999 (Vic RFASC 1999).

2.7.4 Tourism and recreation

The West region provides a range of opportunities for natural and cultural experiences for which the region's forests, coasts, rivers, lakes and ranges provide an important focus. The region is characterised by a wealth of attractions, including the Grampians and Port Campbell National Parks, and historic goldfields.

The region offers a combination of natural and developed tourism attractions for visitors to experience. Public land in the West region provides the basis for a diverse range of recreation activities including bushwalking, picnicking, fishing, surfing, diving, forest drives, camping and four-wheel driving. Developed attractions including the goldfields, mineral springs and wineries add to the overall appeal of the region. The coastal environment includes the Twelve Apostles, shipwreck sites and high limestone cliffs.

In 1995 over 3.5 million visitors spent a total of 10.5 million visitor nights in the West region. The majority of these, 2.42 million visitors, visited attractions along the Great Ocean Road. Melbourne is the region's major visitor origin, which affects visitor characteristics across the region. Visitors to the West region in 1995 spent around \$412 million, mostly on accommodation, food and transport.

The majority of visitors to the West region are on holidays, with approximately 60 per cent of visitors travelling for this purpose. The most popular visitor activities in Gippsland are shown in Table 2.20.

| A - A:. : A | Visitors participating |
|-----------------------------------|------------------------|
| Activity | % |
| Drive to sightsee/pleasure | 53 |
| Shopping | 49 |
| Restaurants/dining out | 46 |
| Visiting friends and relatives | 42 |
| Visiting National Park/forest | 31 |
| Bushwalking | 29 |
| Visit a museum or historic site | 22 |
| Visit an art gallery/craft centre | 21 |
| Swimming/diving/surfing | 18 |
| Visit a park or garden | 17 |

| Table 2 20 | Most popular visitor acti | ivities in the West region 1995 |
|------------|---------------------------|----------------------------------|
| | wost popular visitor acti | ivities in the west region, 1995 |

Note: percentages may not add up to 100 as visitors may have participated in more than one activity. Source: Tourism Victoria 1996a.

Tourism and recreation in the West region is generally focused on the natural environment with adventure and recreation activities, touring and heritage being the region's main tourism products. Public land across the region provides the basis for many activities and Port Campbell and the Grampians National Parks are the major tourism destinations in the region; each receive four times more visitors than each of Australia's most well-known national parks—Uluru and Kakadu (Tonge and Associates 1997b).

Other natural attractions in the region of international renown. Rock climbing and abseiling sites in the Mt Arapiles–Tooan State Park are recognised world-wide and the level of climbing activity on Mt Arapiles is steadily increasing (Tonge and Associates 1997b). Overseas, Bells Beach is one of the most well-known Australian surf beaches, with competitions attracting international publicity. Other popular beaches in the region are at Port Fairy, Lorne and Warrnambool.

A number of vehicle-based touring routes have been developed in the region including the Goldfields and Historic Shipwreck Trails that link historic attractions. Part of the Major Mitchell Trail, Victoria's first long distance (2100 km) cultural trail, crosses the West, retracing the journey of Mitchell and his party. In the Portland area, the Great South West Walk passes through areas of park and State forest, following the Glenelg River and Discovery Bay.

Tourism and recreation in National Parks and reserves

Across Victoria, land managed under the *National Parks Act 1975* received approximately 12.3 million visit days in 1997–98, of which approximately 41 per cent were to parks in the West. The Port Campbell National Park, attracting 12 per cent of visits to all parks and reserves in Victoria in 1997–98, and the Grampians National Park (10 per cent) are the most popular parks in the region. Many visitors also enjoy other parks and reserves in the West. Approximately 360 000 visits are made each year to the Tower Hill State Game Reserve, and the Macedon and You Yangs Regional Parks.

| Park | 1989–90 | 1990–91 | 1991–92 | 1992–93 | 1993–94 | 1994–95 | 1995–96 | 1996–97 | 1997–98 |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Brisbane Ranges NP | 88.5 | 91.3 | 106.7 | 103.3 | 77.0 | 84.0 | 70.3 | 89.8 | 106.4 |
| Grampians NP | 1 656.3 | 1 587.4 | 1 655.3 | 1 430.0 | 1 709.0 | 1 444.2 | 1 468.9 | 1 509.4 | 1 228.3 |
| Lower Glenelg NP | 65.5 | 79.1 | 75.7 | 61.6 | 65.8 | 89.0 | 227.0 | 222.5 | 183.2 |
| Mount Eccles NP | 15.1 | 28.2 | 29.3 | 22.1 | 26.0 | 27.3 | 33.1 | 18.1 | 31.5 |
| Mount Richmond NP | 17.0 | - | 16.9 | 16.0 | 16.0 | 13.1 | 24.9 | - | n/a |
| Otway NP | 73.9 | 65.0 | 67.0 | 100.0 | 159.1 | 231.0 | 248.6 | 388.4 | 432.7 |
| Port Campbell NP | 399.4 | 987.5 | 927.9 | 900.0 | 743.0 | 806.1 | 775.4 | 1 062.3 | 1 533.0 |
| Angahook-Lorne SP | 210.3 | 186.8 | 256.0 | 260.0 | 426.0 | 400.0 | 372.3 | 367.2 | 539.5 |
| Black Range SP | 15.0 | 14.4 | - | - | 8.0 | - | 1.0 | - | 1.7 |
| Cape Nelson SP | 10.9 | - | 8.6 | 9.0 | 9.0 | - | 8.3 | 1.2 | n/a |
| Cape Nelson LS | - | - | - | - | - | - | - | - | 1.1 |
| Carlisle SP | - | - | - | - | - | - | - | - | 1.7 |
| Dergholm SP | - | - | - | - | - | - | - | - | 0.6 |
| Enfield SP | - | - | - | - | - | - | 4.5 | - | 1.7 |
| Langi Ghiran SP | 10.7 | 7.7 | 7.7 | 3.6 | 3.8 | 3.8 | 4.0 | 4.0 | 4.8 |
| Lerderderg SP | 86.9 | 26.0 | 8.7 | 108.5 | 150.9 | 171.0 | 188.6 | 196.1 | 122.9 |
| Mount Arapiles-Tooan SP | 71.0 | 64.0 | 116.8 | 120.0 | 126.5 | 122.3 | 124.0 | 140.0 | 136.7 |
| Mount Buangor SP | 18.8 | 24.0 | 25.2 | 16.5 | 17.0 | 16.5 | 19.9 | 19.9 | 20.8 |
| Mount Napier SP | - | - | - | - | - | - | - | 60.0 | n/a |
| Werribee Gorge SP | 14.0 | 6.4 | 6.5 | 32.0 | 29.6 | 25.3 | 24.7 | 14.1 | 15.0 |
| Bay of Islands CP | - | | - | - | - | - | 457.8 | 581.4 | 511.0 |
| Discovery Bay CP | 106.6 | 103.0 | 103.0 | 100.0 | 106.0 | 100.0 | 38.1 | 33.6 | 22.5 |
| Steiglitz HP | 39.6 | 30.6 | 30.6 | 35.5 | 38.4 | 29.2 | 34.5 | 35.7 | 40.5 |
| Woodlands HP | 74.6 | 84.9 | 107.6 | 105.7 | 133.8 | 112.9 | 80.4 | 80.4 | 87.5 |
| Total | 2 974.1 | 3 386.3 | 3 549.5 | 3 423.8 | 3 844.9 | 3 675.7 | 4 206.3 | 4 824.1 | 5 023.1 |

Table 2.21Visitation to parks in the West region managed under the National Parks
Act—total visit days ('000), 1989–19981

Note: NP = National Park, SP = State Park, HP = Historic Park, CP = Coastal Park, LS = Lightstation

¹Figures have been rounded

Source: Parks Victoria unpublished data (1998).

Activities in the region's parks and reserves include picnicking, camping, fishing, bushwalking, nature observation, horse-riding, rock-climbing, rafting/canoeing, cycling, and four-wheel and pleasure driving. Coastal parks also provide the setting for activities such as boating, sailing, swimming, surfing and diving. In some cases and under special conditions, organised or competitive events, such as foot races, rogaining and orienteering, may be permitted in some areas.

Tourism and recreation in State forest

Read Sturgess and Associates (1995) estimated that State forests in the West attract around 720 000 visitor days per year (Table 2.22). Of these, State forests in the Midlands forest management area (FMA) account for 56 per cent of the visits. However, based on the method used to estimate visitor usage, the authors consider it is likely that visitor numbers are under-estimated, particularly those for the Otway FMA.

State forests are popular for activities such as picnicking, forest drives, four wheel driving, horse riding, trail bike riding, mountain bike riding, bushwalking, and nature observation. Forests in the Midlands FMA are close to large population centres at Ballarat, Geelong and Melbourne, making them popular destinations for forest recreation. Resulting from this proximity, 30 per cent of all visitors to State forests in the West visit the Midlands FMA for a day trip.

| Table 2.22 | Recreational usage of State forest in the West region, | 1994–95 |
|------------|--|---------|
|------------|--|---------|

| | | | | Total number of |
|------------------------|--------------|---------|-----------------------|-----------------|
| Forest management area | Day visitors | Campers | Disperse ¹ | visitor days |
| Horsham ² | 46 000 | 145 000 | 2 000 | 193 000 |
| Midlands | 223 000 | 22 000 | 160 000 | 405 000 |
| Otway | 24 000 | 15 000 | 16 000 | 55 000 |
| Portland | 35 000 | 2 000 | 33 000 | 70 000 |
| Total | 328 000 | 184 000 | 211 000 | 723 000 |

¹'Disperse' usage of State forest is not specific to a certain site.

²Figures for the whole FMA.

Source: Read Sturgess and Associates' (1995)

Outdoor education

Outdoor education is an important forest-based activity undertaken by a number of commercial operators, school groups and clubs in the region. Activities include bush walking, kayaking, mountain bike riding, wildlife observation, historic site interpretation and camping. There is an increasing focus on the environment in outdoor education, with these activities used as a link to environment awareness. Activities usually include an interpretation component, particularly those for the Victorian Certificate of Education (VCE) subject 'Outdoor Education', which has components related to human impacts on the natural environment.

Currently, forty-seven commercial operators conduct educational and training tours in the forests of the West region with the Grampians National Park being one of the most popular sites for outdoor education in Victoria.

Commercial tourism operations on public land

The private sector's role in providing a range of services to tourists and recreationists is increasing in importance and commercial tours are becoming a popular means for tourists to enjoy forest areas.

There are currently 113 commercial tour operators licensed to use public land in the West region, which represents about 29 per cent of all commercial tour operators licensed by NRE in Victoria. The majority of commercial operations are centred on the parks and reserves in the region.

In the West region, bush-walking tours are most popular, with 39 per cent of the commercial tour licences issued providing for this type of activity. Other licensed tour activities include rock-climbing and abseiling, horse-riding, vehicle-based tours, water- based activities, and natural history tours as shown in Table 8.6. Although many tour operators are licensed to utilise public land in the West region, tours may be seasonal or run on an irregular basis. Bushwalking and horse-riding are the most regular form of tour undertaken.

More details on Tourism in the West region are provided in Chapter 8 of the Comprehensive Regional Assessment published in August 1999 (Vic RFASC 1999).

3 Community telephone survey

The objectives of this study were to identify through the use of survey research:

- community attitudes towards the management and use of forested lands; and
- the level of community dependency on forested lands within the West RFA region.

In addition, the study sought specific information on the community attitudes towards the management and use of National Parks and State forests within the study area.

3.1 Methodology

3.1.1 Sample size and sample selection

The study was based on a sample size of 813, which was drawn from all households within the West RFA region. A sample of this size permits considerable statistical confidence when making inferences from the sample to a single population. The methodology is described in detail in 'Community telephone survey' in Section 1.1.2.

In addition to the total sample for the West RFA region, four sub samples within the region were also defined. The sub samples were based on the town resource clusters (TRCs) within the West region—Midlands, Otway, Portland and Horsham (Figure 3.1).



Figure 3.1 Location of town resource clusters

3.1.2 Questionnaire design

As the questionnaire asked respondents to make judgements in relation to the use of National Parks and State forests, an explanatory statement was provided to each respondent describing the differences between National Parks and State forests.

Throughout this questionnaire we will be talking about native forests in National Parks and State forests. In this survey the term National Park includes State Parks and Conservation Reserves like fauna and flora reserves. A National Park and State Park is an area set aside to protect biodiversity and provide public enjoyment, recreation and education in natural environments. Examples include Grampians National Park, Lower Glenelg National Park, Lerderderg State Park and Deep Lead Flora and Fauna Reserve.

State forests supply timber and other forest products sustainably, provide for openspace recreation, and protect biodiversity, historic and scenic values. Examples include Otways, Wombat, Mt Cole, Pyrenees, Cobboboonee and Annya State Forest.

3.2 Sample characteristics

Table 3.1 shows the percentage of male and female respondents for the sample and a comparison with the percentage of males and females identified in the 1996 population census of the West RFA region. In comparison to census values, and not withstanding that the census was undertaken three years prior to this survey, there is a tendency for the sample to over-sample females in comparison to males.

Table 3.1 Gender of survey respondents

| | Sample data | 1 | Census d | ata |
|--------|-------------|----------|----------|----------|
| Gender | Frequency | Per cent | Count | Per cent |
| Male | 343 | 42.2 | 282 954 | 49.6 |
| Female | 470 | 57.8 | 287 234 | 50.4 |
| Total | 813 | 100.0 | 570 188 | 100.00 |

Note: Census count is based on ABS (1996) census data using census collector districts which are at least 50% within the boundary of the West RFA region. Source: EBC (1999).

Table 3.2 shows the age range of respondents within the West RFA sample and compares percentages within age ranges between the 1996 census and the sample. This table indicates that, with the exception of the 15–19 year old age group, the sample ages are all within five per cent of census percentages for the same age ranges.

Table 3.2Age of survey respondents

| | Sample o | lata | Census | data | Sample-census |
|-----------|-----------|----------|---------|----------|---------------|
| Age range | Frequency | Per cent | Count | Per cent | discrepancy |
| 15–19 | 30 | 3.7 | 42 312 | 9.9 | -6.2 |
| 20-24 | 36 | 4.5 | 36 531 | 8.6 | -4.1 |
| 25–29 | 50 | 6.2 | 39 331 | 9.2 | -3.0 |
| 30–34 | 49 | 6.1 | 45 284 | 10.6 | -4.5 |
| 35–39 | 85 | 10.5 | 47 407 | 11.1 | -0.6 |
| 40-44 | 108 | 13.4 | 44 760 | 10.5 | 2.9 |
| 45-49 | 85 | 10.5 | 40 220 | 9.4 | 1.1 |
| 50-54 | 74 | 9.1 | 29 016 | 6.8 | 2.3 |
| 55-59 | 60 | 7.4 | 22 621 | 5.3 | 2.1 |
| 60–64 | 64 | 7.9 | 19 189 | 4.5 | 3.4 |
| 65–69 | 50 | 6.2 | 18 415 | 4.3 | 1.9 |
| 70–74 | 50 | 6.2 | 16 088 | 3.8 | 2.4 |
| 75–79 | 45 | 5.6 | 11 197 | 2.6 | 3.0 |
| 80-84 | 12 | 1.5 | 7 628 | 1.8 | -0.3 |
| 85-89 | 6 | 0.7 | 3 881 | 0.9 | -0.2 |
| 90+ | 4 | 0.5 | 1 745 | 0.4 | 0.1 |
| Total | 808 | 100.0 | 425 625 | 100.0 | |

Note: Census count is based on ABS (1996) census data using census collector districts which are at least 50% within the boundary of the West RFA region. Census count for age excludes overseas visitors. Five respondents did not report their age. Source: EBC (1999).

All respondents identified their usual occupation. For those respondents in the workforce, the occupation given was classified into the eight main occupational categories as identified in the Australian Standard Classification of Occupations (ASCO). Table 3.3 shows the percentage distribution of respondents within the occupational classifications.

Table 3.3 Occupation of sample

| Occupation | Frequency | Per cent |
|--|-----------|----------|
| Managers and administrators | 161 | 19.8 |
| Professionals | 66 | 8.2 |
| Para-professionals | 23 | 2.8 |
| Tradespersons | 48 | 5.8 |
| Clerks | 38 | 4.6 |
| Salespersons and personal services workers | 81 | 10.0 |
| Plant and machine operators and drivers | 23 | 2.8 |
| Labourers and related workers | 49 | 6.1 |
| Self-employed | 4 | 0.8 |
| Not in the workforce | 316 | 39.1 |
| Total | 809 | 100.0 |

Note: Based on the Australian Standard Classification of Occupations (ASCO). Not in the workforce includes unemployed, retired and persons not in paid employment. Four respondents did not provide their occupation. Source: EBC (1999).

Respondents were also asked to indicate whether they were employed or any members of their household were employed in specific pre-defined forest industries. Table 3.4 shows that 144 (17.7%) respondents or household members of respondents were employed in one or more forest related industries. Clearly the most common industry in which respondents or household members were employed was grazing (68.1% of the 17.7%) followed by tourism (15.3%) and plantation timber production (11.1%).

Table 3.4'Are you, or any members in your household, employed in any of the
following industries or activities which use land in public native forests?'

| Response | Frequency | Per cent |
|---------------------------------|-----------|----------|
| Grazing | 98 | 68.1 |
| Tourism | 22 | 15.3 |
| Plantation timber production | 16 | 11.1 |
| Commercial firewood | 10 | 6.8 |
| Recreational prospecting | 10 | 6.9 |
| Native forest timber production | 8 | 5.6 |
| Commercial mining | 6 | 4.2 |
| Beekeeping | 5 | 3.5 |
| Total | 144 | |

Note: This is a multiple response table, where all rows are independent.

Source: EBC (1999).

An examination of the three most common activities identified in Table 3.4 (grazing, tourism and plantation timber production) across each of the four sub-regions is shown in Table 3.5. The Portland and Otway sub-regions have the highest concentration of residents involved in the grazing industry, the Midlands has the highest percentage associated with tourism and while plantation timber production is highest in the Otway sub-region.

Table 3.5Sub-regional comparison: employed in industries or activities using public
native forests

| Response | Mi | dlands | Pc | ortland | С | tway | Но | rsham | | Total |
|---|--------|-----------|--------|--------------|--------|-----------|----------|----------|----------|-----------|
| Grazing | 18 | (18.4%) | 30 | (30.6%) | 36 | (36.7%) | 14 | (14.3%) | 98 | (100.0%) |
| Tourism | 9 | (40.9%) | 3 | (13.6%) | 5 | (22.7%) | 5 | (22.7%) | 22 | (100.0%) |
| Plantation timber production | 5 | (31.3%) | 1 | (6.3%) | 10 | (62.5%) | 0 | (0.0%) | 16 | (100.0%) |
| Note: Total is based on the number of responder | ts for | the three | catego | ories in the | table. | This is a | multiple | response | table, v | vhere all |
| rows are independent | | | | | | | | | | |

Source: EBC (1999).

Respondents were also asked if they had any involvement in native forest management, planning or preservation in Victoria. Nine per cent of the sample indicated they had been involved in these activities (Table 3.6), with 33% of these respondents indicating their involvement was associated with tree planting on their own property or as a member of a group involved in native tree planting (Table 3.7).

Table 3.6'Have you had any involvement in native forest management, planning or
preservation in Victoria?'

| Response | Frequency | Per cent |
|----------|-----------|----------|
| No | 736 | 90.6 |
| Yes | 76 | 9.4 |
| Total | 812 | 100.0 |
| | | |

Note: One respondents did not answer this question. Source: EBC (1999).

Table 3.7'What type of involvement have you had [in native forest management,
planning or preservation in Victoria?]'

| Response | Frequency | Per cent |
|--|-----------|----------|
| Tree planting (on farm, school or organised) | 25 | 32.8 |
| Environmental group member (landcare) | 17 | 22.5 |
| Work related | 10 | 13.1 |
| Member Country Fire Authority (firefighting) | 7 | 9.2 |
| Forest management (government/semi government) | 6 | 7.9 |
| Petitioner, campaigner or protester | 2 | 2.6 |
| Other (less than 1) | 10 | 13.1 |
| Total | 76 | 100.0 |

Source: EBC (1999).

3.3 National Parks

Respondents provided information on their use of National Parks and their attitudes towards the management of National Parks in Victoria.

3.3.1 Use of National Parks

Within the last year an estimated 55% of respondents were found to have visited a National Park in Victoria (Table 3.8).

Table 3.8 'During the last year have you visited a National Park in Victoria?'

| Response | Frequency | Per cent |
|--|-----------|----------|
| No | 363 | 44.8 |
| Yes | 448 | 55.2 |
| Total | 811 | 100.0 |
| Note: Two respondents did not answer this question | | |

Note: Two respondents did not answer this question Source: EBC (1999).

A comparison across the four sub samples, showed significant variation in the use of National Parks, with relatively lower use of National Parks in the Midlands and Otway sub-regions and relatively higher use in the Portland and Horsham sub-regions (Table 3.9).

Table 3.9Sub-regional comparison: 'During the last year have you visited a National
Park in Victoria?'

| Response | Mic | Midlands | | Otway | | Portland | | sham |
|----------|-----|----------|-----|----------|-----|----------|-----|----------|
| No | 140 | (56.2%) | 90 | (56.3%) | 99 | (39.9%) | 34 | (22.1%) |
| Yes | 109 | (43.8%) | 70 | (43.8%) | 149 | (60.1%) | 120 | (77.9%) |
| Total | 249 | (100.0%) | 160 | (100.0%) | 248 | (100.0%) | 154 | (100.0%) |
| | | | | | | | | |

Source: EBC (1999).

Of those respondents who had visited a National Park within the last year, 28% had visited a National Park only once during the last year with 22% visiting once a month or more (Table 3.10).

Table 3.10 'How often have you visited these National Parks?'

| Response | Frequency | Per cent |
|-------------------------|-----------|----------|
| Once a month or more | 97 | 21.9 |
| Once every three months | 118 | 26.6 |
| Once every six months | 102 | 23.0 |
| Once a year | 126 | 28.4 |
| Total | 443 | 100.0 |

Note: Five respondents did not answer this question Source: EBC (1999).

A comparison across sub-regions also indicated a trend towards respondents within the Midlands and Otway sub-regions visiting national parks less frequently than respondents from within other sub-regions (Table 3.11).

| Response | Mic | llands | Ot | way | Por | tland | Hor | sham |
|-------------------------|-----|----------|----|----------|-----|----------|-----|----------|
| Once a month or more | 18 | (16.7%) | 14 | (20.9%) | 33 | (22.1%) | 32 | (26.9%) |
| Once every three months | 25 | (23.1%) | 16 | (23.9%) | 43 | (28.9%) | 34 | (28.6%) |
| Once every six months | 29 | (26.9%) | 17 | (25.4%) | 26 | (17.4%) | 30 | (25.2%) |
| Once a year | 36 | (33.3%) | 20 | (29.9%) | 47 | (31.5%) | 23 | (19.3%) |
| Total | 108 | (100.0%) | 67 | (100.0%) | 149 | (100.0%) | 119 | (100.0%) |

Table 3.11Sub-regional comparison: 'How often have you visited these National
Parks?'

Source: EBC (1999).

Table 3.12 shows the Grampians National Park (63.4%), Lower Glenelg National Park (7.4%) and the Port Campbell National Park (6.3%) were three most commonly visited national parks by respondents within the last year.

| Table 3 12 | What was the name of the National Park that you visited? |
|------------|--|
| | what was the name of the National Park that you visited? |

| Response | Frequency | Per cent |
|---------------------------------|-----------|----------|
| Grampians NP | 284 | 63.4 |
| Lower Glenelg NP | 33 | 7.4 |
| Port Campbell NP | 28 | 6.3 |
| Tower Hill NP | 22 | 4.9 |
| Mt Eccles NP | 14 | 3.1 |
| Alpine NP | 12 | 2.7 |
| Wilsons Promontory NP | 10 | 2.2 |
| Hattah-Kulkyne NP | 8 | 1.8 |
| Mt Richmond NP | 8 | 1.8 |
| Lerderderg SP | 7 | 1.6 |
| Otway NP | 6 | 1.3 |
| Mt Buffalo NP | 6 | 1.3 |
| Deep Lead Flora & Fauna Reserve | 6 | 1.3 |
| Dandenong Ranges NP | 3 | 0.7 |
| Big Desert Wilderness Park | 3 | 0.7 |
| Other (frequency less than 1%) | 89 | 19.9 |
| Total | 448 | |

Note: Parks in italics are located outside the West RFA region. This is a multiple response table, where all rows are independent. Source: EBC (1999).

Table 3.13 shows that the primary activity within National Parks was bushwalking or walking, with 84% of respondents who had visited a National Park within the last year indicating this as an activity undertaken when visiting a National Park. Other common activities undertaken when visiting National Parks included picnics or BBQs (33%), driving or 4WD travel (28%), camping (19%) and sightseeing (18%).

Table 3.13 Activities in National Parks

| Response | Frequency | Per cent |
|-------------------------------|-----------|----------|
| Bushwalking or walking | 372 | 83.6 |
| Picnics or BBQs | 148 | 33.3 |
| Driving or 4WD travel | 126 | 28.3 |
| Camping | 84 | 18.9 |
| Sightseeing | 82 | 18.4 |
| Fishing or hunting | 30 | 6.7 |
| Climbing or abseiling | 18 | 4.0 |
| Observing flora and fauna | 18 | 4.0 |
| Family outing | 14 | 3.1 |
| Holidaying | 13 | 2.9 |
| Day visits | 6 | 1.3 |
| Birdwatching | 6 | 1.3 |
| Boating, kayaking, or sailing | 6 | 1.3 |
| Horseriding | 5 | 1.1 |
| Work related | 5 | 1.1 |
| Mountain biking | 5 | 1.1 |
| Swimming | 4 | 0.9 |
| Other (frequency less than 3) | 32 | 7.2 |
| Total | 445 | |

Note: Frequencies and percentages based on the number of national parks respondents visited. This is a multiple response table, where all rows are independent. Source: EBC (1999).

3.3.2 Management of National Parks

When respondents were asked if they were interested in the management and use of National Parks in Victoria, 89% either strongly agreed or agreed with the statement that they were interested in the management and use of National Parks in Victoria (Table 3.14).

| Table 3.14 | 'I am interested in the management and use of National Parks in Victoria?' |
|------------|--|
| | |

| Response | Frequency | Per cent |
|--|-----------|----------|
| Strongly agree | 181 | 22.3 |
| Agree | 542 | 66.9 |
| Disagree | 84 | 10.4 |
| Strongly disagree | 3 | 0.4 |
| Total | 810 | 100.0 |
| Note. Three reenandents did not ensure this question | | |

Note: Three respondents did not answer this question Source: EBC (1999).

A comparison across the four sub-regions also showed high interest in the management and use or National Parks, although the Otway sub-region had relatively lower levels of interest when compared to the remaining sub-regions (Table 3.15).

Table 3.15Sub-regional comparison: 'I am interested in the management and use of
National Parks in Victoria?'

| Response | Mic | Midlands | | Otway | | Portland | | sham |
|--|---------------|---------------|----------|----------------|-----------|--------------|-----------|----------|
| Agree | 225 | (90.4%) | 136 | (84.5%) | 221 | (89.8%) | 141 | (91.4%) |
| Disagree | 24 | (9.6%) | 25 | (15.5%) | 25 | (10.2%) | 13 | (8.6%) |
| Total | 249 | (100.0%) | 161 | (100.0%) | 246 | (100.0%) | 154 | (100.0%) |
| Note: Percentages for strongly agree and | agree have be | en recoded to | agree. F | Percentages fo | r disagre | e and strong | v disaare | e have |

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree. Source: EBC (1999).

When respondents were asked if they were confident that National Parks were being well managed in Victoria, 68% believed that National Parks were being well managed (Table 3.16).

Table 3.16 'I am confident that National Parks are being well managed in Victoria'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 20 | 2.6 |
| Agree | 502 | 65.4 |
| Disagree | 221 | 28.8 |
| Strongly disagree | 25 | 3.3 |
| Total | 768 | 100.0 |

Note: Forty-five respondents did not answer this question. Source: EBC (1999).

Table 3.17 shows that 71% of respondents from the Portland and Horsham subregions were confident that National Parks were being well managed in Victoria, In contrast 65% of respondents from the Midlands and Otway sub-regions were confident that National Parks were being well managed.

Table 3.17Sub-regional comparison: 'I am confident that National Parks are being
well managed in Victoria'

| Response | Midlands | | Otway | | Portland | | Horsham | |
|--|----------|---------------|------------|----------------|-----------|-----------------|-----------|----------|
| Agree | 148 | (64.9%) | 100 | (64.5%) | 167 | (71.1%) | 107 | (71.3%) |
| Disagree | 80 | (35.1%) | 55 | (35.5%) | 68 | (28.9%) | 43 | (28.7%) |
| Total | 228 | (100.0%) | 155 | (100.0%) | 235 | (100.0%) | 150 | (100.0%) |
| Note: Percentages for strongly agree and agree | have be | en recoded to | o agree. F | Percentages fo | r disagre | ee and strongly | y disagre | e have |
| heen recorded to disagree | | | | | | | | |

been recoded to disagree. Source: EBC (1999).

Respondents were also asked what they considered the three most important things that needed to be considered in the management of National Parks in Victoria. Thirty-six per cent of the sample indicated the protection and preservation of native flora and fauna and 20% indicated the need to maintain or improve fire control and management within National Parks.

Table 3.18'What do you think are the three most important things that need to be
considered in managing National Parks in Victoria'

| Response | Frequency | Per cent |
|---|-----------|----------|
| Protection and preservation of native flora and fauna | 229 | 35.9 |
| Fire control and management | 125 | 19.6 |
| Maintaining public access | 83 | 13.0 |
| Management of visitor impacts | 83 | 13.3 |
| Rubbish and litter control | 75 | 11.8 |
| Habitat protection | 75 | 11.8 |
| Maintenance and installation of walking tracks | 73 | 11.5 |
| Provide visitor facilities | 69 | 10.8 |
| Control feral animals and pests | 65 | 10.2 |
| Maintenance of parks & facilities | 60 | 9.4 |
| More public education and information | 38 | 6.0 |
| Removal of undergrowth | 35 | 5.5 |
| Better management through increase funding | 34 | 5.3 |
| Improve road access | 34 | 5.3 |
| More park rangers | 29 | 4.6 |
| Revegetation of natural species | 27 | 4.2 |
| No developments | 19 | 3.0 |
| Control logging | 19 | 3.0 |
| Increase control of pollutants | 18 | 2.8 |
| Maintain water supply and quality | 17 | 2.7 |
| Control trail bike riders and 4WDs | 16 | 2.5 |
| Leave old growth trees | 14 | 2.2 |
| Provide safety | 11 | 1.7 |
| No logging | 11 | 1.7 |
| Preserve for the future | 10 | 1.6 |
| Maintain biodiversity of the area | 10 | 1.6 |
| Allow grazing for weed control | 7 | 1.1 |
| Other (frequency of 1% or less) | 109 | 17.1 |
| Number of respondents | 637 | |

Note: This is a multiple response table, where all rows are independent. 176 (21.6%) of respondents were unable to identify issues important to the management of National Parks.

Source: EBC (1999).

3.3.3 Dependency on National Parks

Table 3.19 shows that only 13% of respondents indicated they were dependent upon National Parks for their livelihood. A comparison across the four sub-regions indicated no significant variation in dependence on National Parks across the four sub-regions.



Mt Abrupt, Grampians
Table 3.19 'I am dependent upon National Parks for my livelihood?'

| Per cent |
|----------|
| 1.4 |
| 11.6 |
| 68.1 |
| 19.0 |
| 100.0 |
| |

Note: Two respondents did not answer this question. Source: EBC (1999).

Table 3.20 shows a very high dependency on National Parks by the tourism industry, with 75% of respondents indicating that tourism businesses in the area in which they live were dependent upon National Parks.

Table 3.20 'Tourism businesses in this area depend on National Parks'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 142 | 17.7 |
| Agree | 465 | 57.8 |
| Disagree | 189 | 23.5 |
| Strongly disagree | 8 | 1.0 |
| Total | 804 | 100.0 |

Note: Nine respondents did not answer this question. Source: EBC (1999).

While between 71% and 73% of respondents in the Midlands, Otway and Portland sub-regions indicated tourism businesses in the area depended on national parks, in the Horsham sub-region 89% of respondents indicated that tourism businesses were dependent upon National Parks (Table 3.21).

Table 3.21 Sub-regional comparison: 'Tourism businesses in this area depend on National Parks'

| Response | Mic | Midlands | | ands Otway | | Portland | | Horsham | |
|---|-----|----------|-----|------------|-----|----------|-----|----------|--|
| Agree | 180 | (73.2%) | 113 | (71.1%) | 177 | (72.2%) | 137 | (89.0%) | |
| Disagree | 66 | (26.8%) | 46 | (28.9%) | 68 | (27.8%) | 17 | (11.0%) | |
| Total | 246 | (100.0%) | 159 | (100.0%) | 245 | (100.0%) | 154 | (100.0%) | |
| Note: Dependence for strength agree and agree have been recorded to agree. Dependence for diagree and strength diagree have | | | | | | | | | |

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree. Source: EBC (1999).

Eighty-four per cent of respondents indicated that people in the area in which they lived used National Parks for recreation (Table 3.22). No significant variation in dependence upon National Parks was found across the four sub-regions.

Table 3.22 'Many people in this area use National Parks for recreation'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 160 | 20.0 |
| Agree | 516 | 64.4 |
| Disagree | 121 | 15.1 |
| Strongly disagree | 4 | 0.5 |
| Total | 801 | 100.0 |

Note: Twelve respondents did not answer this question. Source: EBC (1999).

Table 3.23 shows that 77% of respondents believed that National Parks were important to the local economy of the area in which they lived.

Table 3.23 'National Parks are important to the local economy in this area'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 148 | 18.4 |
| Agree | 471 | 58.6 |
| Disagree | 174 | 21.6 |
| Strongly disagree | 11 | 1.4 |
| Total | 804 | 100.0 |

Note: Nine respondents did not answer this question. Source: EBC (1999).

Table 3.24 shows that while residents within all four sub-regions considered National Parks to be important to their local economy, the perceived importance of National Parks to the local economy was relatively higher in the Horsham sub-region when compared to the remaining three sub-regions.

Table 3.24Sub-regional comparison: 'National Parks are important to the local
economy in this area'

| Response | Mic | Midlands | | Otway | | Portland | | sham |
|----------|-----|----------|-----|----------|-----|----------|-----|----------|
| Agree | 180 | (73.8%) | 116 | (73.0%) | 188 | (76.1%) | 135 | (87.7%) |
| Disagree | 64 | (26.2%) | 43 | (27.0%) | 59 | (23.9%) | 19 | (12.3%) |
| Total | 244 | (100.0%) | 159 | (100.0%) | 247 | (100.0%) | 154 | (100.0%) |

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree. Source: EBC (1999).

3.4 State forests

Respondents provided information on their use of State forests and their attitudes towards the management of State forests in Victoria.

3.4.1 Use of State forests

Table 3.25 indicates that during the last year 38% of respondents indicated they had visited a State forest in Victoria. This compares with 55% of the sample who indicated they had visited a National Park within the last year.

| Table 3.25 | During the last year, have you visited any State forests in Victoria? |
|------------|---|
| | Burnig the last year, have year hered any etate forests in theteria. |

| Response | Frequency | Per cent |
|---------------------|-----------|----------|
| No | 503 | 61.9 |
| Yes | 310 | 38.1 |
| Total | 813 | 100.0 |
| Source: EBC (1999). | | |

Table 3.26 shows that respondents from within the Otway sub-region made significantly greater use of State forests when compared to respondents from all other sub-regions.

| Response | Mic | Midlands | | way | Portland | | Horsham | |
|---------------------|-----|----------|-----|----------|----------|----------|---------|----------|
| No | 148 | (59.4%) | 90 | (55.9%) | 163 | (65.5%) | 124 | (66.2%) |
| Yes | 101 | (40.6%) | 71 | (44.1%) | 86 | (34.5%) | 92 | (33.8%) |
| Total | 249 | (100.0%) | 161 | (100.0%) | 249 | (100.0%) | 154 | (100.0%) |
| Source: EBC (1999). | | | | | | | | |

Table 3.26Sub-regional comparison: 'During the last year have you visited any State
forests in Victoria?'

Amongst those respondents who had visited a State forest within the last year, 32% indicated they visited State forests once a month or more (Table 3.27). The frequency of use of State forests is in marked contrast to the use of National Parks where the majority of respondents were found to have visited National Parks only once during the last year. Clearly while a greater number of people have visited a national park within the last year when compared to a State forest, the frequency of use of State forests is significantly higher than that of National Parks.

Table 3.27 'How often have you visited these State forests?'

| Response | Frequency | Per cent |
|-------------------------|-----------|----------|
| Once a month or more | 96 | 32.1 |
| Once every three months | 57 | 19.1 |
| Once every six months | 66 | 22.1 |
| Once a year | 80 | 26.8 |
| Total | 299 | 100.0 |

Note: Eleven respondents did not answer this question. Source: EBC (1999).

A comparison across the three sub-regional samples indicated that 37% of respondents from the Midlands sub-region and 38% of respondents from the Otway sub-region has visited a State forests at least once a month or more (Table 3.28). This is significantly higher than the 25% of respondents from the Portland and Horsham sub-regions who had visited a State forest once a month or more.

| Table 3.28 | Sub-regional comparison: 'How often have you visited these State forests?' |
|------------|--|
|------------|--|

| Response | Mic | Midlands | | Otway | | Portland | | sham |
|-------------------------|-----|----------|----|----------|----|----------|----|----------|
| Once a month or more | 37 | (37.0%) | 26 | (37.7%) | 21 | (25.6%) | 12 | (25.0%) |
| Once every three months | 19 | (19.0%) | 14 | (20.3%) | 17 | (20.7%) | 7 | (14.6%) |
| Once every six months | 25 | (25.0%) | 10 | (14.5%) | 16 | (19.5%) | 15 | (31.3%) |
| Once a year | 19 | (19.0%) | 19 | (27.5%) | 28 | (34.1%) | 14 | (29.2%) |
| Total | 100 | (100.0%) | 69 | (100.0%) | 82 | (100.0%) | 48 | (100.0%) |
| | | | | | | | | |

Source: EBC (1999).

Table 3.29 shows that the Otways (30%), Wombat State Forest (13%) and Mt Cole State Forest (8%), were the three most commonly visited state forests amongst residents within the West RFA region.

| Table 3.29 '\ | What was the name | of the State fore | st you visited?' |
|---------------|-------------------|-------------------|------------------|
|---------------|-------------------|-------------------|------------------|

| Response | Frequency | Per cent |
|----------------------------------|-----------|----------|
| The Otways | 92 | 30.4 |
| Wombat SF | 39 | 13.1 |
| Mt Cole SF | 25 | 8.4 |
| Cobboboonee SF | 22 | 7.4 |
| Pyrenees SF | 15 | 5.0 |
| Annya SF | 8 | 2.7 |
| Enfield | 7 | 2.3 |
| Creswick SF | 7 | 2.3 |
| Black Ranges | 5 | 1.7 |
| Jancourt East | 4 | 1.3 |
| Other (frequencies less than 1%) | 124 | 41.6 |
| Number of respondents | 298 | |

Note: This is a multiple response table, where all rows are independent. Source: EBC (1999).

The type of activity respondents engaged in when visiting State forests were very similar to the type of activities they engaged in when visiting National Parks (Table 3.30). As was the case when visiting National Parks, the primary activity was walking or bushwalking. However, while 84% of visitors to National Parks reported this as an activity only 59% of visitors to State forests reported this as an activity.

| Table 3.30 | Activities in | State forests |
|------------|---------------|---------------|
| | | |

| Response | Frequency | Per cent |
|--------------------------------|-----------|----------|
| Walking or bush walking | 181 | 58.8 |
| Drive or 4WD travel | 106 | 34.4 |
| Picnics or BBQs | 87 | 28.2 |
| Sightseeing | 50 | 16.2 |
| Camping | 26 | 8.4 |
| Firewood collection | 21 | 6.8 |
| Observing flora and fauna | 13 | 4.2 |
| Mountain biking | 13 | 4.2 |
| Horseriding | 8 | 2.6 |
| Work | 8 | 2.6 |
| Fishing | 7 | 2.3 |
| Family outing | 6 | 1.9 |
| Lives close by | 6 | 1.9 |
| Birdwatching | 5 | 1.6 |
| Photography | 4 | 1.3 |
| Other (frequency less than 1%) | 37 | 12.0 |
| Number of respondents | 308 | |

Note: Frequencies and percentages based on the number of State forest respondents visited. This is a multiple response table, where all rows are independent. Source: EBC (1999).

Management of State forests 3.4.2

Table 3.31 shows that 85% respondents indicated they were interested in the management of State forests in Victoria. This percentage is similar to the 89% of respondents who indicated they were interested in the management of National Parks in Victoria. There were no significant differences across sub-regions in relation interest in the management of National Parks.

Table 3.31 'I am interested in the management and use of State forests in Victoria?'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 144 | 17.8 |
| Agree | 541 | 66.8 |
| Disagree | 118 | 14.6 |
| Strongly disagree | 7 | 0.9 |
| Total | 810 | 100.0 |

Note: Three respondents did not answer this question. Source: EBC (1999).

When respondents were asked if they were confident State forests were being well managed in Victoria, 61% believed that State forests were being well managed (Table 3.32). Although this percentage is lower than that found for National Parks (68%), the difference is not statistically significant. There were no significant differences across sub-regions in the percentage of respondents who believed state forests were being well managed in Victoria.

| Table 3.32 | 'I am confident that State forests are being well managed in Victoria |
|------------|---|
| | i an oonig non nagoa ni tiotona |

| Response | Frequency | Per cent |
|--|-----------|----------|
| Strongly agree | 18 | 2.4 |
| Agree | 447 | 58.7 |
| Disagree | 251 | 32.9 |
| Strongly disagree | 46 | 6.0 |
| Total | 762 | 100.0 |
| Note: Fifty and reasonablents did not anower this guartian | | |

Note: Fifty-one respondents did not answer this question. Source: EBC (1999).

As was the case for National Parks, respondents were asked to consider the three most important things that need to be considered in the management of State forests in Victoria. Table 3.33 shows that the two most important management issues associated with State forests to be fire management and control (23%) and the need for replanting and reforestation (20%). While maintaining public access was an issue as it was in relation to National Parks, the need for replanting and reforestation and fire management and control were issues of more importance to the management of State forests.

Table 3.33'What do you think are the three most important things that need to be
considered in managing State forests in Victoria'

| Response | Frequency | Per cent |
|--|------------------------------|--------------------------------|
| Fire control management (maintain and better) | 140 | 22.8 |
| Replanting and reforestation | 121 | 19.7 |
| Control logging and timber removal | 119 | 19.3 |
| Protection of native flora and fauna | 116 | 18.9 |
| Better management through funding and local knowledge | 76 | 12.4 |
| Accessible to public | 68 | 11.1 |
| Protect animals/habitat for | 68 | 11.1 |
| Eradicate feral animals and weeds | 49 | 8.0 |
| Rubbish and litter control | 48 | 7.8 |
| Maintain and install walking tracks | 47 | 7.6 |
| Manage visitor impacts | 41 | 6.7 |
| Maintenance of undergrowth | 39 | 6.3 |
| Establish public facilities (BBQs, camping grounds) | 37 | 6.0 |
| Maintenance of road access | 32 | 5.2 |
| Sustainability of use | 24 | 3.9 |
| Maintain water catchments | 19 | 3.1 |
| More public education and information | 19 | 3.1 |
| No logging | 19 | 3.1 |
| More park rangers | 18 | 2.9 |
| Leave old-growth trees | 18 | 2.9 |
| Balance commercial and tourist use | 15 | 2.4 |
| Utilise all wood products | 15 | 2.4 |
| No clear felling | 14 | 2.3 |
| No developments | 13 | 2.1 |
| No trail bike riders or 4WDs | 12 | 2.0 |
| No wood chipping | 10 | 1.6 |
| Should be able to collect firewood for personal use | 9 | 1.5 |
| Utilise timber from pine plantations | 9 | 1.5 |
| Safety precautions | 8 | 1.3 |
| Manage effects of pollutants | 8 | 1.3 |
| Control mining | 8 | 1.3 |
| Preserve for the future | 7 | 1.1 |
| Permit logging | 7 | 1.1 |
| Other (frequency of 1% or less) | 83 | 13.5 |
| Number of respondents | 615 | |
| Note: This is a multiple response table, where all rows are independent. | 198 (24.3%) of respondents v | vere unable to identify issues |

Note: This is a multiple response table, where all rows are independent. 198 (24.3%) of respondents were unable to identify issues important to the management of National Parks. Source: EBC (1999).

3.4.3 Dependency on State forests

Table 3.34 shows that 13% of respondents indicated they were dependent upon State forests for their livelihood. There was no significant variation in dependency upon State forests across each of the four sub-regions.

| Table 3.34 | 'I am dependent | on State forests | for my livelihood? |
|------------|-----------------|------------------|--------------------|
| | i uni acpenaent | on otate forests | ior my mennoou. |

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 11 | 1.4 |
| Agree | 94 | 11.6 |
| Disagree | 564 | 69.6 |
| Strongly disagree | 141 | 17.4 |
| Total | 810 | 100.0 |

Note: Three respondents did not answer this question. Source: EBC (1999).

Table 3.35 shows that 57% of respondents indicated tourism businesses in their area were dependent upon State forests. The same question asked in relation to National Parks found that 75% of respondents indicated that tourism businesses in their area were dependent upon National Parks.

Table 3.35 'Tourism businesses in this area depend on State forests'

| Frequency | Per cent |
|-----------|--|
| 53 | 6.7 |
| 395 | 50.1 |
| 323 | 40.9 |
| 18 | 2.3 |
| 789 | 100.0 |
| | Frequency 53 395 323 18 789 |

Note: Twenty-four respondents did not answer this question. Source: EBC (1999).

The Midlands and Portland sub-regions, when compared to the Otway and Horsham sub-regions, was found to have a greater percentage of respondents who indicated tourism businesses in their area were dependent upon State forests (Table 3.36).

Table 3.36 Sub-regional comparison: 'Tourism businesses in this area depend on State forests'

| Response | Mic | llands | Ot | way | Por | tland | Ног | sham |
|--|-----------|---------------|----------|----------------|-----------|----------------|---------|----------|
| Agree | 145 | (60.4%) | 80 | (50.3%) | 146 | (61.1%) | 77 | (51.0%) |
| Disagree | 95 | (39.6%) | 79 | (49.7%) | 93 | (38.9%) | 74 | (49.0%) |
| Total | 240 | (100.0%) | 159 | (100.0%) | 239 | (100.0%) | 151 | (100.0%) |
| Note: Percentages for strongly agree and agree | e have be | en recoded to | agree. F | Percentages fo | r disagre | e and strongly | disagre | e have |

been recoded to disagree. Source: EBC (1999).

Table 3.37 indicates that 71% of respondents believed people in their area used State forests for recreation. This is compares to 84% of respondents who believed many people in their area used National Parks for recreation.

Table 3.37 'Many people in this area use State forests for recreation'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 79 | 10.0 |
| Agree | 485 | 61.2 |
| Disagree | 222 | 28.0 |
| Strongly disagree | 6 | 0.8 |
| Total | 792 | 100.0 |

Note: Twenty-one respondents did not answer this question. Source: EBC (1999).

Table 3.38 shows significant variation across the four sub-regions in the perceived use of State forests for recreation. For instance, within the Midlands sub-region 78% of respondents perceived that many people in the area used State forests for recreation, while within the Otway sub-region 60% of respondents perceived many people in their area used State forests for recreation.

Table 3.38Sub-regional comparison: 'Many people in this area use State forests for
recreation'

| Response | Mic | llands | 01 | tway | Por | tland | Hor | sham |
|---|-----------|----------------|---------|----------------|-----------|--------------|-----------|----------|
| Agree | 188 | (78.0%) | 96 | (60.4%) | 180 | (74.7%) | 100 | (66.2%) |
| Disagree | 53 | (22.0%) | 63 | (39.6%) | 61 | (25.3%) | 51 | (33.8%) |
| Total | 241 | (100.0%) | 159 | (100.0%) | 241 | (100.0%) | 151 | (100.0%) |
| Noto: Porcontagos for strongly agroe and agro | o havo ho | on recorded to | agroo E | Porcontagos fo | r disaaro | o and strong | v disaaro | o havo |

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree. Source: EBC (1999).

Table 3.39 shows that 70% of respondents believed that State forests were important to the local economy of the area in which they lived.

Table 3.39 'State forests are important to the local economy in this area'

| Response | Frequency | Per cent |
|-------------------|-----------|----------|
| Strongly agree | 81 | 10.1 |
| Agree | 476 | 59.6 |
| Disagree | 231 | 28.9 |
| Strongly disagree | 11 | 1.4 |
| Total | 799 | 100.0 |
| Total | 799 | |

Note: Fourteen respondents did not answer this question. Source: EBC (1999).

Table 3.40 shows significant variation across the four sub-regions in the importance of State forests to the local economy, with 76% of respondents from the Midlands sub-region indicating State forests were important to the local economy in comparison to 63% from the Otway sub-region.

Table 3.40Sub-regional comparison: 'State forests are important to the local economy
in this area'

| Response | Mic | llands | 01 | tway | Poi | rtland | Hor | sham |
|----------|-----|----------|-----|----------|-----|----------|-----|----------|
| Agree | 183 | (75.6%) | 101 | (63.1%) | 174 | (71.3%) | 99 | (64.7%) |
| Disagree | 59 | (24.4%) | 59 | (36.9%) | 70 | (28.7%) | 54 | (35.3%) |
| Total | 242 | (100.0%) | 160 | (100.0%) | 244 | (100.0%) | 153 | (100.0%) |

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree. Source: EBC (1999).

3.5 Future industry development

Table 3.41 shows that within the West RFA region, 73% believed that tourism would be the main industry in their area within the next 20 years and 70% also believed that agriculture would be the main industry in their area in the next 20 years. In addition to the industries reported in Table 6.1, which were pre-defined, one per cent of respondents also indicated that gas development and vineyards would be additional main industries in their area within the next 20 years.

Table 3.41'What do you think will be the main industries in your area in the next 20
years?'

| Response | Frequency | Per cent |
|---------------------------------|-----------|----------|
| Tourism | 584 | 72.6 |
| Agriculture | 562 | 69.9 |
| Plantation timber production | 360 | 44.8 |
| Native forest timber production | 210 | 26.1 |
| Manufacturing | 195 | 24.3 |
| Commercial firewood cutting | 176 | 21.9 |
| Commercial mining | 138 | 17.2 |
| Beekeeping | 127 | 15.8 |
| Gold prospecting | 86 | 10.7 |
| Number of respondents | 804 | |

Note: This is a multiple response table, where all rows are independent. Nine respondents did not answer this question. Source: EBC (1999).

A comparison of perceived main industry development across the four sub-regions showed significant variation in the type of industries respondents believed would develop in their area. For instance, in the Midlands and Portland sub-regions tourism, agriculture and plantation timbers was seen as being the main industries to be developed in the next twenty years. However, in the Otway sub-region, the industries included agriculture, tourism, plantation and native forest timber. In contrast, within the Horsham sub-region the main industries included agriculture, tourism, commercial mining, beekeeping and plantation timber.

Table 3.42Sub-regional comparison: 'What do you think will be the main industries in
your area in the next 20 years?'

| Response | Mic | llands | Ot | way | Por | tland | Hor | sham |
|-----------------------------|-----|----------|-----|----------|-----|----------|-----|----------|
| Tourism | 193 | (79.1%) | 113 | (70.2%) | 162 | (65.6%) | 116 | (76.3%) |
| Agriculture | 148 | (60.7%) | 145 | (90.1%) | 147 | (59.5%) | 122 | (80.3%) |
| Plantation timber | 103 | (42.2%) | 81 | (50.3%) | 131 | (53.0%) | 45 | (29.6%) |
| Native forest timber | 66 | (27.0%) | 72 | (44.7%) | 43 | (17.4%) | 29 | (19.1%) |
| Manufacturing | 91 | (37.3%) | 32 | (19.9%) | 38 | (15.4%) | 34 | (22.4%) |
| Commercial firewood cutting | 66 | (27.0%) | 47 | (29.2%) | 32 | (13.0%) | 31 | (20.4%) |
| Commercial mining | 44 | (18.0%) | 13 | (8.1%) | 9 | (3.6%) | 72 | (47.4%) |
| Beekeeping | 43 | (17.6%) | 23 | (14.3%) | 14 | (5.7%) | 47 | (30.9%) |
| Gold prospecting | 46 | (18.9%) | 4 | (2.5%) | 3 | (1.2%) | 33 | (21.7%) |
| Total | 244 | (100.0%) | 161 | (100.0%) | 247 | (100.0%) | 152 | (100.0%) |

Note: This is a multiple response table, where all rows are independent. Source: EBC (1999).

3.6 Changes in the use of native forests affecting communities

Twenty-two per cent of respondents indicated there had been changes in the use of native forests in their area which had affected the community in which they lived (Table 3.43).

| Table 3.43 | 'In the last five years, have there been changes in the use of native forests |
|------------|---|
| | in your area which have affected the community in which you live?' |

| Response | Frequency | Per cent |
|----------|-----------|----------|
| No | 631 | 77.7 |
| Yes | 181 | 22.3 |
| Total | 812 | 100.0 |

Note: One respondent did not answer this question. Source: EBC (1999).

Table 3.44 shows some variation across the four sub-regions in relation to whether changes in the use of native forests have affected the community in which the respondent lived. Within the Horsham sub-region 29% of respondents indicated there had been a change in the use of native forests which had affected their community, while in the remaining three sub-regions between 16% and 23% indicated there had been changes in the use of native forests that had affected their community.

| Table 3.44 | Sub-regional comparison: 'In the last five years, have there been changes |
|------------|---|
| | in the use of native forests in your area which have affected the community |
| | in which you live?' |

| Response | Mic | llands | 01 | tway | Por | tland | Hor | sham |
|--------------------|-----|----------|-----|----------|-----|----------|-----|----------|
| No | 192 | (77.1%) | 121 | (75.2%) | 209 | (83.9%) | 109 | (71.2%) |
| Yes | 57 | (22.9%) | 40 | (24.8%) | 40 | (16.1%) | 44 | (28.8%) |
| Total | 249 | (100.0%) | 161 | (100.0%) | 249 | (100.0%) | 153 | (100.0%) |
| Courses EDC (1000) | | | | | | | | |

Source: EBC (1999).

The type of changes in the use of native forests, which affected communities, are given in Table 3.45. The three most common changes included restrictions on

firewood collection (12%), loss of forest through logging (8%) and an increase in mining activity (8%).

| Table 3.45 | 'What were these changes [in the use of native forests that affected the |
|------------|--|
| | community in which you live]?' |

| Response | Frequency | Per cent |
|---|-----------|----------|
| Restricted firewood collection | 21 | 11.9 |
| Logging resulted in loss of forest areas | 15 | 8.5 |
| Mining industry activity increased | 14 | 8.0 |
| Increase in fires | 13 | 7.4 |
| Tracks and roads blocked | 13 | 7.4 |
| Tourism/more visiting | 12 | 6.8 |
| Friction in community between groups | 10 | 5.7 |
| Plantations developed | 10 | 5.7 |
| Loss of jobs (logging stopped) | 8 | 4.5 |
| Plantations on good grazing land | 5 | 2.8 |
| Staff reductions leading to lack of maintenance | 5 | 2.8 |
| Less timber production | 5 | 2.8 |
| Sawmills closed down | 5 | 2.8 |
| Increase in restrictions | 5 | 2.8 |
| Forest lost through development | 5 | 2.8 |
| Greens objecting | 4 | 2.3 |
| More facilities | 4 | 2.3 |
| No replanting being done | 4 | 2.3 |
| Cutting pine plantations | 4 | 2.3 |
| Stricter laws for logging | 4 | 2.3 |
| Better fire control | 4 | 2.3 |
| No grazing allowed | 3 | 1.7 |
| Eyesore from logging activity | 3 | 1.7 |
| Greater awareness of forest issues | 3 | 1.7 |
| Too much wood chipping in Wombat area | 3 | 1.7 |
| Other (frequencies less than 1%) | 41 | 23.3 |
| Number of respondents | 176 | |

Note: This is a multiple response table, where all rows are independent. Source: EBC (1999).

4 Forest activity and linkages by town resource cluster

This section provides an analysis of the results of industry surveys conducted as part of the Social Assessment (CRA) for the West RFA region. The purpose of this section is to identify communities that are reliant on forest based industry activity in the region and to identify significant relationships between specific areas of forest resource in the West RFA region and communities dependent on that resource.

4.1 Methodology

The methods used in the collection of data for this report include: mail surveys of timber processing industries (mills), timber industry contractors, timber industry employees, tourism businesses and other forest industries including apiarists, graziers and mining and prospecting businesses; and secondary data from the Australian Bureau of Resource Economics (ABARE 1998). Employment and expenditure catchment analysis has also been undertaken to assist in determining the relationship between forest resource and towns and communities dependent upon that resource within the West RFA region.

The number of surveys distributed to specific forest industries and the response rate from these industries is given in Table 4.1. As the surveys are not a census, caution needs to be used in generalising or extrapolating survey data to specific industry groups as a whole.

| Type of forest industry | Number returned | Number distributed | Return rate (%) |
|---|-----------------|--------------------|-----------------|
| Timber processing (mills) | 7 | 32 | 21.9% |
| Forest contractors (firewood, loggers, transport) | 45 | 132 | 34.1% |
| Prospecting | 25 | 214 | 11.7% |
| Mining | 13 | 56 | 23.2% |
| Apiarist | 29 | 88 | 32.9% |
| Grazing | 16 | 178 | 9.0% |
| Tourism | 27 | 113 | 23.9% |
| Total | 162 | 813 | 19.9% |

 Table 4.1
 Return rate for questionnaires distributed to forest industries and business

Source: EBC (1999).

The return rate for employee questionnaires is not given as in many instances the number of employees within the industry is uncertain due to the seasonal and part time nature of the work.

Table 4.2Number of forest, timber and tourism industry employee questionnaires
returned

| Type of forest industry | Number returned |
|---|-----------------------------|
| Timber processing (mills) | 130 |
| Forest contractors (firewood, loggers, transport) | 63 |
| Prospecting and mining | 49 |
| Apiarist | 29 |
| Grazing | 11 |
| Tourism | 31 |
| Total | 313 |
| Prospecting and mining Apiarist Grazing Tourism Total | 49 29 11 31 313 |

Source: EBC (1999).

An examination of the geographic distribution of forest industries that were reliant on resource from the West RFA region or on access to public native forests within this region indicated distinct regional groupings or clustering of towns. The geographic clustering of towns, known as town resource clusters (TRCs) is shown in Figure 4.1. Within the West RFA region four TRCs were identified which included (a) the Midlands TRC, (b) the Portland TRC, (c) the Otway TRC and (d) the Horsham TRC. Within this section of the report, the four TRCs identified in Figure 4.1 are used to summarise information about the distribution and location of forest industries and employees.



Figure 4.1 Location of town resource clusters

4.2 Native timber processing industries

Native timber processing industries include all timber mills or industries that drawn a percentage of their resource from forest management areas (FMAs) located within the West RFA region.

4.2.1 Use of resource

Table 4.3 clearly shows the relationship between mills located within specific TRCs and the use of crown resource from FMAs. With the exception of a mill at Moolap, mills located within the Midlands TRC draw the majority of their crown hardwood resource from the Midlands FMA. Similarly, mills within the Otway, Portland and Horsham TRCs all draw the majority of their crown hardwood resource from the respective



FMAs of Otway, Portland and Horsham. What Table 4.3 suggests is that any change in resource in the Midlands FMA is likely to effect mills in the Midlands TRC and that similarly changes in resource in the either the Otway, Portland and Horsham FMAs are likely to affect mills within the corresponding TRCs.

| Table 4.3 | Percentage of Crown | resource from f | forest managemer | nt areas |
|-----------|--------------------------|-----------------|------------------|----------|
| | i ci cci tage oi oi owii | | or est managemen | n ai cas |

| Town in which mills | Forest management areas | | | | | |
|----------------------|-------------------------|-------|----------|---------|---------|-------|
| located | Midlands | Otway | Portland | Horsham | Central | Other |
| Midlands TRC | | | | | | |
| Trentham | 100.0 | | | | | |
| Daylesford | 96.0 | 4.0 | | | | |
| Woodend | 100.0 | | | | | |
| Ballarat | 100.0 | | | | | |
| Beaufort | 58.0 | 42.0 | | | | |
| Bacchus Marsh | 100.0 | | | | | |
| Moolap | 25.0 | 75.0 | | | | |
| Otway TRC | | | | | | |
| Colac | | 100.0 | | | | |
| Forrest | | 100.0 | | | | |
| Barongarook | | 100.0 | | | | |
| Portland TRC | | | | | | |
| Hamilton | | | 98.0 | 2.0 | | |
| Heywood | | | 100.0 | | | |
| Portland | | | 100.0 | | | |
| Horsham TRC | | | | | | |
| Horsham | | | | 100.0 | | |
| Stawell | | | | 100.0 | | |
| Outside the West RFA | | | | | | |
| Yackandandah | 100.0 | | | | | |
| Tangambalanga | | 100.0 | | | | |
| Millicent (SA) | | 21.0 | | | 79.0 | |
| North Geelong | 83.0 | | | | | 17.0 |

Note: Other includes Gippsland, Central, Benalla-Mansfield, and Mid-Murray FMAs. Values are percentages of total crown hardwood log purchases.

Since the printing of the CRA it has been found that one mill that was included in the CRA mill survey analysis is not receiving logs from the West region. This was due to an oversight. The analysis in the Social Assessment Report excludes this mill. Source: ABARE (1999) and industry survey information.

Prepared by: EBC (1999)

The information presented in Table 4.3 is also shown in Figure 4.2 where the relationship between mill town and source of wood supply is given. Figure 4.2 again confirms that timber-processing industries in each of the TRCs are primarily reliant on resource from the FMA in which the TRC is found.



Figure 4.2 Location of resource drawn by mills in the West RFA region

4.2.2 Location of timber processing industries

Table 4.4 and Figure 4.3 show the location of timber processing industries (mills) that draw a percentage of their crown resource from FMAs located within the West RFA region. Of the 24 mills that drawn resource from the West RFA region, 20 mills (83%) are located in the West RFA region. In addition, Table 4.4 shows that the four mills located at Daylesford generates approximately 19% of all employment by timber processing industries.

| Town location | Number of employees | Percentage of employees |
|---------------------------|---------------------|-------------------------|
| Daylesford ¹ | 73 | 19.5 |
| Woodend | 51 | 13.6 |
| Colac ² | 44 | 11.8 |
| Beaufort ³ | 44 | 11.8 |
| North Geelong | 35 | 9.4 |
| Millicent (SA) | 26 | 7.0 |
| Forrest | 23 | 6.1 |
| Ballarat | 19 | 5.1 |
| Hamilton | 13 | 3.5 |
| Moolap | 12 | 3.2 |
| Heywood | 7 | 1.9 |
| Yackandandah | 6 | 1.6 |
| Portland | 6 | 1.6 |
| Barongarook | 5 | 1.3 |
| Bacchus Marsh | 3 | 0.8 |
| Trentham | 2 | 0.5 |
| Horsham | 2 | 0.5 |
| Tangambalanga | 2 | 0.5 |
| Stawell | 1 | 0.2 |
| Total number of employees | 374 | 100.0 |

 Table 4.4
 Location of timber processing industries and number of employees

¹There are four timber processing industries located at Daylesford.

²There are two timber processing industries located at Daylest

³There are two timber processing industries located at colac.

Note: Part-time and casual employees have been counted as 0.5 Employment is total employment within the industry and has not been proportionally adjusted in terms of volumes of public native hardwood processed.

Source: ABARE (1999). Includes all sawmills receiving log purchases from the West RFA region.

Prepared by: EBC (1999).



Figure 4.3 Location of timber processing industries in the West RFA region

Four town resource clusters (TRCs) were defined on the basis of the geographic distribution of mills and resource drawn from the FMAs (Figure 4.1). The Midlands TRC consisted of eleven mills with 204 employees. In addition, the Otway TRC had four mills and 72 employees. Together these two TRCs accounted for 74% of all industry employment, with the TRCs of Portland and Horsham accounting for 8% of the remaining employment.

As shown in Table 4.5 mills located outside of the boundary of the West RFA region had 69 employees, representing 18% of the total employment of mills drawing crown hardwood resource from the West RFA region.

| Table 4.5 | Location of timber processing industries and number of employees |
|-----------|--|
|-----------|--|

| Town resource cluster | Number of employees | Percentage of employees | |
|---|---------------------|-------------------------|--|
| Within the West RFA region | | | |
| Midlands | 204 | 54.5 | |
| Otway | 72 | 19.3 | |
| Portland | 26 | 6.9 | |
| Horsham | 3 | 0.8 | |
| Total within the West RFA region | 280 | 81.6 | |
| Outside the West RFA region | 69 | 18.4 | |
| Total number of employees | 374 | 100.0 | |
| Note: Includes all sawmills receiving log purchases from the West RFA region. | | | |

Source: ABARE (1999).

Prepared by: EBC (1999).

4.2.3 Residential location of employees

Table 4.6 and Figure 4.4 shows the residential location of mill employees. The residential location of employees is shown in relation to the TRC in which the industry they are employed is located. For instance, employee residential locations for the Midlands TRC are for all employees who are employed in industries located

within this TRC. In instances where no information is available for the residential location of employees the mill town is used as the best estimate of residential location.

What is apparent from Table 4.6 is that the location of employment and the residential location of employees are generally constrained to a specific TRC. One exception is the town of Colac, which is located in the Otway TRC, but which is nevertheless the residential location of some mill employees working in the Midlands TRC. As shown in Table 4.3, mills located within the Midlands TRC obtain the majority of their resource from the Midlands FMA and the majority of their employees reside in the towns of Daylesford, Woodend, Colac, Ballarat, Beaufort and Kyneton. Any change in resource status from this FMA, which may impact on employment, clearly has the potential to effect these specific towns.

Similarly, mills located in the Otway TRCs draw the majority of their resource from the Otway FMA (Table 4.3) and the majority of employees are located in the towns of Colac and Forrest. Again, any changes in the status of resource in the Otway FMA which may effect employment is likely to impact on these towns.

| TRC and town location | Number of employees | Percentage of employees |
|---------------------------|---------------------|-------------------------|
| Midlands TRC | | |
| Daylesford | 61 | 16.3 |
| Woodend | 22 | 5.9 |
| Colac | 21 | 5.6 |
| Ballarat | 19 | 5.0 |
| Beaufort | 17 | 4.5 |
| Kyneton | 17 | 4.5 |
| Moolap | 12 | 3.2 |
| Hepburn | 8 | 2.1 |
| Trentham | 5 | 1.3 |
| Bacchus Marsh | 3 | 0.8 |
| Diggers Rest | 3 | 0.8 |
| Gisborne | 3 | 0.8 |
| Taradale | 3 | 0.8 |
| Avoca | 2 | 0.5 |
| Cororooke | 2 | 0.5 |
| Creswick | 2 | 0.5 |
| Yendon | 2 | 0.5 |
| Dereel | 1 | 0.2 |
| Porcupine Ridge | 1 | 0.2 |
| Otway TRC | | |
| Colac | 36 | 9.6 |
| Forrest | 23 | 6.1 |
| Barongarook | 5 | 1.3 |
| Birregurra | 2 | 0.5 |
| Winchelsea | 2 | 0.5 |
| Barwon Downs | 2 | 0.5 |
| Elliminyt | 2 | 0.5 |
| Portland TRC | | |
| Hamilton | 13 | 3.5 |
| Heywood | 7 | 1.9 |
| Portland | 6 | 1.6 |
| Horsham TRC | | |
| Horsham | 2 | 0.5 |
| Stawell | 1 | 0.2 |
| Outside West RFA region | 69 | 18.4 |
| Total number of employees | 374 | 100.0 |

 Table 4.6
 Residential location of employees

Note: Table shows the residential location of employees, for employees where the location of their employment is within a TRC. Source: EBC (1999).



Figure 4.4 Location of mill employee place of residence

4.2.4 Household expenditure of employees

While the previous analyses provide some indication of the degree of town dependence on direct employment levels in timber processing industries, employees will not only purchase goods and services from the town in which they reside but also from other regional centres. As such town dependency on industry activity is often broader than simply identifying the number of timber industry employees within a town. In some instances, a town may have no timber industry employees resident, but the town has some reliance upon forest industries through income and further employment generated from the supply of goods and services to timber industry employees located in other towns. There is no intention in the following analyses to identify local or sub regional income and employment multipliers derived from the household expenditure of timber industry employees. The analyses that are presented simply provide some indication of the magnitude of household expenditure by timber industry employees across towns in the region, and the location of towns in which household goods and services are purchased.

The locational pattern and magnitude of household expenditure by industry employee households is modelled using primary data collected from this survey of timber industry employees and information collected as part of the Australian Bureau of Statistics (ABS) Household Expenditure Survey, which was undertaken in 1993–94.

The survey of industry employees identified the town location from which commodities or services were purchased, with respondents identifying the main town in which purchases occurred and other towns from which they purchased commodities or services. The identification of main towns and other towns associated with household purchases provided some indication of both primary and secondary catchments for the purchase of household items, as clearly a single household item would not always be purchased from one location. Table 4.7 shows the range of household commodities and services identified in the survey.

| Table 4.7 | Household commodities and services identified in the forest industry |
|-----------|--|
| | employee survey research |

| Main household grocery purchases | Petrol or diesel for car |
|---------------------------------------|--|
| Minor purchases of food and groceries | Power (electricity or gas) |
| Hairdressing (men's and women's) | Telephone bill payment |
| Chemist goods, toiletries & cosmetics | Accounting |
| Take away food | Banking |
| Tools and hardware | Legal expenses |
| Clothing | Insurance (inc. house, car or medical) |
| Books or magazines | Medical (inc. doctors, dentists) |
| Electrical goods | Mortgage payments |
| Furniture or carpets | Council rates |
| Household repairs and maintenance | Rental payments |
| Cars (new and/or used) | School fees and costs |
| Car repairs and service | Recreation, sporting and entertainment |
| C 500 (1000) | |

Source: EBC (1999).

Mill employee surveys undertaken by ABARE (1998) estimated the mean gross income for mill employees to be \$23 700 per annum. After tax employees were assumed to have a mean income of \$19 052 per annum. The after tax annual employee income was used to calculate household expenditure for mill employees and the distribution of household expenditure to specific towns. Using the ABS Household expenditure survey and the location from which goods and services were purchased, estimates were obtained for the value of expenditure on goods and services within specific towns.

Table 4.8 shows the amount of household expenditure generated by employees from mills that draw a percentage of their timber resource from FMAs within the West RFA region. For instance, and with reference to Table 4.8, mills located within the Midlands TRC were estimated to generate \$3.9 million in annual household expenditure. Similarly, mills located within the Otway TRC were found to generate \$1.4 million in annual household expenditure amongst their employees. Overall, employees from mills located within the West RFA generated \$5.8 million in annual household expenditure.

| Source of household expenditure (TRC) | Annual household expenditure (\$'000) |
|---------------------------------------|---------------------------------------|
| Midlands | 3 887 |
| Otway | 1 372 |
| Portland | 495 |
| Horsham | 57 |
| Total inside West RFA region | 5 811 |
| Outside West RFA region | 1 314 |
| Total Household Expenditure | 7 225 |
| Source: FBC (1999). | |

Table 4.9 shows the town location of timber processing industries and the magnitude of household expenditure generated by industries within these towns. For instance, of the \$3.9 million generated by industries within the Midlands TRC, the mills at Daylesford generate \$1.4 million in annual household expenditure.

| Table 4.9 | Industry town as source of | f household expenditure | amongst mill employees |
|-----------|--|-------------------------|------------------------|
| | · · · · · · · · · · · · · · · · · · · | | |

| Source of household expenditure (industry town) | Annual household expenditure (\$'000) |
|---|---------------------------------------|
| Midlands TRC | |
| Daylesford | 1 391 |
| Woodend | 972 |
| Beaufort | 838 |
| Ballarat | 362 |
| Moolap | 228 |
| Bacchus Marsh | 57 |
| Trentham | 37 |
| Total household expenditure | 3 887 |
| Otway TRC | |
| Colac | 839 |
| Forrest | 438 |
| Barongarook | 95 |
| Total household expenditure | 1 372 |
| Portland TRC | |
| Hamilton | 248 |
| Heywood | 133 |
| Portland | 114 |
| Total household expenditure | 495 |
| Horsham TRC | |
| Horsham | 38 |
| Stawell | 19 |
| Total household expenditure | 57 |
| Total within West RFA region | 5 811 |
| Outside West RFA region | 1 314 |
| Total for all employees | 7 225 |
| Source: EBC (1999). | |

4.2.5 Employee profiles

Table 4.10 shows the profile of mill employees. Ninety-three per cent of mill employees are male and the mean age of employees is 40 years. On average employees have been working in the current business for eight years and have worked in this industry sector for 12 years. The majority of employees are long-term residents of the town they live in and have lived in their current town for an average of 24 years. Forty-seven per cent of employees have a year 10 or lower level of education. Two thirds of all employees are married with 20% of employed partners working in the same industry.

| Table 4.10 | Timber | processing | industries: | emplo | yee | profiles |
|------------|--------|------------|-------------|-------|-----|----------|
| | | | | | | |

| Profile | Value |
|---|--------------|
| | |
| Der einer meles | 39.8 |
| Per cent formales | 92.9 |
| For Left refinances | 7.1 |
| Der cent full time employment | 04 5 |
| Per cent qui-time employment | 94.0 |
| Average number of bours worked per week | 0.0 |
| Average number of nours worked per week | 21.2 |
| Mean number of years working for current business | 0.U 11.0 |
| Der cent wich bave only worked in current industry sector | E1 7 |
| Per cent who have only worked in current industry section | 01.7 10.0 |
| Per cent who have moved town to retain employment in industry | 10.2 |
| And an humber of town moves to retain employment in industry | 2.0 |
| Mone number of users resident in surrent town | 22.7 |
| | 23.7 |
| | 21.7 |
| | 31.7 |
| Our the bome | 32.3 |
| United level of equivation (nor cent) | 33.0 |
| Primary school | 2.2 |
| Voor 7 | 2.3 |
| Year 9 | 3.9 |
| | 0.3 |
| Year 10 | 10.0 |
| Voor 11 | 10.0 |
| Vege 12 | 12.0 |
| A trade or TAEE contificate | 14.0 |
| A trade of TAFE Left initiate | 19.0 |
| Marital status (see sent) | 0.3 |
| Marital status (<i>Jet Celli)</i> | 62.0 |
| Without defacto | 03.0 |
| Single | 2.4 |
| Separated or diversed | 27.0 |
| Separate of divolution | 0.3 |
| Full time | 20.0 |
| | 20.7 |
| Pat-tille | 31.4 |
| Not employed | 47.7 |
| For Left with particle employed in same industry as employee | 19.7 |
| Moon family size | 2.0 |
| Near failuing size | 5.0 |
| | 6.0 |
| 5 12 years (pre-school) | 12.2 |
| 12 years (high school) | 12.3 |
| 18-17 years (might school) 18-27 years (might school) | 11.4 |
| 25-29 years (young shigles/couples) | 12.0 |
| 40 yours (mature families) | 20.2 |
| 40-47 years (intaute iditilities) | 20.2 |
| 50-04 years (pre-remember) | 10.3 |
| oo+ years (eideny) | 1.5 |

Note: Sample based on survey responses from 130 employees of timber processing industries. Source: EBC (1999).

4.3 Forest contractors

Forest contractors include businesses involved in native sawlog harvesting, transportation and forest roading.

4.3.1 Location of contracting businesses

Table 4.11 and Figure 4.5 provides an indication of the location of forest contractor businesses. Based on surveys of contracting businesses in the Central Highlands, North East and West, an employment size for contracting businesses was found to be 4.9 employees per business and is used in Table 4.11 to provide an estimate, where no additional information is available, of the number of employees in contracting businesses within specific towns. Table 4.11 shows there were an estimated 24 contracting businesses who accessed forest resources within the West RFA region,

with the majority (66.7%) located within the Otway TRC and in particular the town of Colac (42%). Using the employment estimate, it was found that there were 123 employees of contracting businesses, with the Otway TRC having 77 employees and the town of Colac 51 employees.

| Town location | Number of businesses | Number of employees |
|-------------------------|----------------------|---------------------|
| Otway TRC | | |
| Colac | 10 | 51.4 |
| Barangarook | 2 | 5.9 |
| Forrest | 2 | 9.8 |
| Kawarren | 1 | 4.9 |
| Barwon Downs | 1 | 4.9 |
| Total | 16 | 76.9 |
| Midlands TRC | | |
| Ballan | 2 | 2.0 |
| Beaufort | 2 | 7.5 |
| Daylesford | 1 | 6.0 |
| Ballarat | 1 | 4.9 |
| Total | 6 | 20.4 |
| Horsham TRC | | |
| Horsham | 1 | 4.9 |
| Total | 1 | 4.9 |
| Outside West RFA region | 1 | 21.0 |
| Total | 24 | 123 |

 Table 4.11
 Town location of forest contractor businesses

Note: No survey information was available for contractors in the Portland TRC Prepared by: EBC (1999).



Figure 4.5 Location of forest contracting businesses in the West RFA region

4.3.2 Residential location of employees

As survey information was available for only 18 contracting business employees involved in harvesting or transportation, which represented only 15% of the estimated 123 employees, it was not possible to identify the residential town location of all contracting business employees. However, and as shown in Table 4.6, the majority of industry employees reside in the same TRC in which they are employed. As such the

total employment for TRCs reported in Table 4.11 would also reflect the total number of employees who are resident within a TRC.

4.3.3 Household expenditure of employees

Estimates for employee household expenditure were derived using the same procedure as outlined for mill employees (Section 4.2.4).

Table 4.12 shows the amount of household expenditure generated amongst forest contractor employees. For instance, and with reference to Table 4.12, contractors located within the Otway TRC were estimated to generate \$1.5 million in annual household expenditure. Similarly, contractors located within the Midlands TRC were found to generate \$0.4 million in annual household expenditure amongst their employees. Overall, employees of contractors drawing a percentage of their resource from the West RFA region, generated \$2.3 million in annual household expenditure.

 Table 4.12
 TRC source of household expenditure amongst contracting business employees

| Source of household expenditure (TRC) | Annual household expenditure (\$'000) |
|--|---------------------------------------|
| Otway | 1 465 |
| Midlands | 389 |
| Horsham | 93 |
| Other locations | 400 |
| Total household expenditure | 2 347 |
| Note: No survey information was available for contractors in the Portland TRC. | |
| Source: EBC (1999). | |

Table 4.13 shows the town location of contracting businesses and the magnitude of household expenditure generated by contracting businesses within these towns. For instance, of the \$1.5 million generated by industries within the Otway TRC, contracting businesses located in Colac generate \$980 000 in annual household expenditure. In addition, and as shown in Table 4.13, contracting businesses located outside the West RFA region and outside all TRCs generate \$400 000 in annual household expenditure.

Due to the low number of surveys returned from employees of contracting businesses it is not possible to identify the town location for household expenditure. However, as shown in Table 4.12 a high percentage of the household expenditure of employees occurs within the TRC in which they are employed or in close proximity to the town in which they are employed. As such Table 4.13, without any additional information on the location of household expenditure, also provides the best estimate for the location of employee household expenditure, as these are the major service centres within the region.

Table 4.13 Industry town as source of household expenditure amongst contracting business employees

| Source of household expenditure (industry town) | Annual household expenditure (\$'000) |
|---|---------------------------------------|
| Otway TRC | |
| Colac | 980 |
| Forrest | 187 |
| Barangarook | 112 |
| Kawarren | 93 |
| Barwon Downs | 93 |
| Total | 1 465 |
| Midlands TRC | |
| Beaufort | 144 |
| Daylesford | 114 |
| Ballarat | 93 |
| Ballan | 38 |
| Total | 389 |
| Horsham TRC | |
| Horsham | 93 |
| Total | 93 |
| Outside West RFA region | 400 |
| Total household expenditure | 2 347 |
| Note: No survey information was available for contractors in the Portland TPC | |

Note: No survey information was available for contractors in the Portland TF Source: EBC (1999).

4.3.4 Industry expenditure

In the survey of forest industries, each contracting business was asked to indicate the town from which they purchased goods and services within the last 12 months.

Table 4.14 shows for all contracting businesses located within the Otway and Midlands TRCs, the location of their expenditure on business goods and services. Businesses located in Otway TRC source much of their goods and services from the town of Colac with major equipment purchases and repairs and maintenance also being sourced from Melbourne. Businesses in the Midlands TRC source their goods and services from Ballarat and Beaufort. While no survey information was available of the Portland and Horsham TRCs, business are likely to source goods and services from the townships of Portland, Horsham, Hamilton and Warrnambool.

| Goods and services | Primary catchment | Secondary catchment | Tertiary catchment |
|---------------------------------------|-------------------|---------------------|--------------------|
| Otway TRC | | | |
| Frequent business expenses A | Colac | | |
| Other business expenses B | Colac | | |
| Repairs and maintenance | Colac | Geelong | Melbourne |
| Major equipment purchases | Colac | Geelong | Melbourne** |
| Building or land purchases/extensions | Colac | | |
| Log costs (royalties and levies) | Colac | | |
| Midlands TRC | | | |
| Frequent business expenses A | Ballarat | Beaufort | Daylesford |
| Other business expenses B | Ballarat | Beaufort | Melbourne |
| Repairs and maintenance | Beaufort | Ballarat | Ballan |
| Major equipment purchases | Ballarat | Melbourne | |
| Building or land purchases/extensions | Beaufort | Ballarat | |
| Log costs (royalties and levies) | Beaufort | Daylesford | Ballan |

Table 4.14 Location of contracting business expenditure

Note: Frequent business expenses A includes frequent business expenses such as power, fuel, freight, banking and office supplies. Other business expenses B includes less frequent expenses such as accounting, legal expenses, insurance, advertising and printing.

**Indicates equal importance to the secondary and tertiary catchment locations. No survey information was available on industries in Horsham or Portland TRC. Source: EBC (1999).

Employee profiles 4.3.5

Table 4.15 shows the profile of contractor business employees. Ninety-five per cent of employees are male and the mean age of employees is 40 years. On average employees have been working in the current business for 10 years and have worked in this industry sector for 17 years. The majority of employees are long-term residents of the town they live in and have lived in their current town for an average of 30 years. Fifty-eight per cent of employees have a year 10 or lower level of education. Seventynine per cent of all employees are married with 31% of all employed partners working in the same industry.

| Mean age of employee (years)39.8Per cent males94.8Per cent females5.2Employment11.3Per cent part-time employment11.3Average number of hours worked per weekNDMean number of years working for current business10.9Mean number of years working for current industry sector53.3Per cent who have nowed town to retain employment in industry53.3Per cent who have moved town to retain employment in industry2.0Home ownership characteristics11.3Mean number of years resident in current town30.2Home ownership (par cent)21.3Have a mortgage37.7Own the home41.0Highest level of education (per cent)4.8Year 89.5Year 89.5Year 1027.0Year 1115.9A trade or TAFE certificate15.9Degree or diploma1.6Year 127.9A trade or TAFE certificate15.9Degree or diploma1.6Year 1115.9Year 127.9A trade or TAFE certificate15.9Degree or diploma1.6Maritel or defacto7.9Maritel or defacto7.9Maritel or defacto7.9Maritel or defacto7.9Maritel or defacto5.9Separated or divored6.0Separated or divored15.9Separated or divored15.9Separated or divored22.0 <t< th=""></t<> |
|---|
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| Average number of hours worked per weekNDMean number of years working for current business10.9Mean number of years working in current industry sector53.3Per cent who have only worked in current industry sector53.3Per cent who have moved town to retain employment in industry17.5Median number of town moves to retain employment in industry2.0Home ownership characteristics2Mean number of years resident in current town30.2Home ownership (per cent)2Rent home21.3Have a mortgage37.7Own the home41.0Highest level of education (per cent)1.6Year 74.8Year 89.5Year 91.5.9Year 1027.0Year 1115.9Year 127.9A trade or TAFE certificate15.9Degree or diploma1.6Marited or defacto79.4Widowed0.0Single15.9Separated or divorced4.8Partners employment characteristics (per cent)4.8Partners employment characteristic |
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| Partners employment characteristics (per cent) Full-time 22.0 |
| Full-time 22.0 |
| |
| FAU-IUUP 44 () |
| Not employed 34.0 |
| Per cent with partner employed in same industry as employee 30.8 |
| Family characteristics |
| Mean family size 3.5 |
| Family lifecycle age profiles (per cent) |
| 0–4 years (pre-school) 9.7 |
| 5–12 years (primary school) 22.8 |
| 13–17 years (high school) 9.7 |
| 18–24 years (young singles/couples) 5.8 |
| 25–39 years (young/middle families) 28.6 |
| 40–49 years (mature families) 11.7 |
| 50–64 years (pre-retirement) 11.7 |
| 65+ years (elderly) 0.0 |

Table 4.15 Forest contractors: employee profiles

Note: Based on a sample of 63 survey responses. 'ND' indicates insufficient or no data was available. Source: EBC (1999).

4.4 Grazing businesses

The return rate for questionnaires distributed to grazing businesses who were also holders of grazing permits for the West RFA region was low as was the return rate for employees of these businesses (Table 4.1). The only form of analysis that can be undertaken is to examine the town location of grazing businesses.

4.4.1 Location of grazing businesses

Figure 4.6 and Table 4.16 shows the town location of holders of grazing permits and the TRC in which the town is located. Of the 201 grazing businesses identified, 64 (32%) were located in the Horsham TRC, 44 (22%) were located in the Portland TRC, while an additional 28 (14%) were located in the Midlands TRC.

| Town location | Number of businesses | Percentage of businesses |
|--|----------------------------------|-------------------------------------|
| Horsham TRC | | |
| Horsham | 24 | 11.9 |
| Edenhope | 15 | 7.5 |
| Stawell | 11 | 5.5 |
| Apsley | 5 | 2.5 |
| Murtoa | 2 | 1.0 |
| Telangatuk East | 2 | 1.0 |
| Towns with 1 grazing business | 5 | 2.5 |
| Total grazing businesses | 64 | 31.8 |
| Portland TRC | | |
| Casterton | 11 | 5.5 |
| Balmoral | 7 | 3.5 |
| Hamilton | 5 | 2.5 |
| Cavendish | 4 | 2.0 |
| Heywood | 2 | 1.0 |
| Dunkeld | 2 | 1.0 |
| Portland | 2 | 1.0 |
| Coleraine | 2 | 1.0 |
| Towns with 1 grazing business | 9 | 4.5 |
| Total grazing businesses | 44 | 21.9 |
| Midlands TRC | | |
| Ararat | 5 | 2.5 |
| Willaura | 4 | 2.0 |
| Illabarook | 2 | 1.0 |
| Mansfield | 2 | 1.0 |
| Maroona | 2 | 1.0 |
| Streatham | 2 | 1.0 |
| Towns with 1 grazing business | 11 | 5.5 |
| Total grazing businesses | 28 | 13.9 |
| Otway TRC | | |
| Beeac | 4 | 2.0 |
| Colac | 4 | 2.0 |
| Eurack | 2 | 1.0 |
| Irrewarra | 2 | 1.0 |
| Winchelsea | 2 | 1.0 |
| Towns with 1 grazing business | 3 | 1.5 |
| Total grazing businesses | 19 | 9.5 |
| Other town locations (unidentifiable town location) | 46 | 22.9 |
| Total grazing businesses | 201 | 100.0 |
| Note: Based on information supplied by Department of Natural | Pesources and Environment (DNPE) | and includes permit holders for the |

Table 4.16 Town location of grazing businesses

Environment (DNRE) and includes permit holders for the West RFA region. Town location will often include nearest town to the grazing business.

Prepared by: EBC (1999).



Figure 4.6 Location of grazing businesses in the West RFA region

4.5 Apiarists

The return rate for questionnaires distributed to apiarist businesses who held permits for the West RFA region was low (Table 4.17). The 29 questionnaires were analysed in order to identify employee profiles for apiarist businesses and to provide some indication of the location of resource used.



Bee hives

4.5.1 Location of apiarist businesses

Figure 4.7 and Table 4.17 shows the town location of apiarist businesses and the TRC in which the town is located. Of the 88 apiarist businesses identified, 21 (24%) were located in the Horsham TRC and 21% in the Midlands TRC. The towns of Horsham, Stawell and Ararat have the highest concentration of apiarist businesses.

| Town location | Number of husinesses | Percentage of husinesses |
|---|----------------------|--------------------------|
| Horsham TDC | Number of Businesses | rencentage of businesses |
| | 7 | 7.0 |
| Horsnam | / | 7.9 |
| Stawell | 1 | 7.9 |
| Douglas | 2 | 1.1 |
| Towns with 1 apiarist business | 5 | 5.7 |
| Total apiarist businesses | 21 | 23.9 |
| Midlands TRC | | |
| Ararat | 5 | 5.7 |
| Ballarat | 3 | 3.4 |
| Towns with 1 apiarist business | 10 | 11.4 |
| Total apiarist businesses | 18 | 20.5 |
| Portland TRC | | |
| Coleraine | 2 | 1.1 |
| Towns with 1 apiarist business | 4 | 4.5 |
| Total apiarist businesses | 6 | 6.8 |
| Otway TRC | | |
| Towns with 1 apiarist business | 2 | 1.1 |
| Total apiarist businesses | 2 | 1.1 |
| Outside West RFA region | 23 | 26.1 |
| Other town locations (unidentifiable town location) | 18 | 20.4 |
| Total apiarist businesses | 88 | 100.0 |

Note: Based on information supplied by Department of Natural Resources and Environment (DNRE) and includes permit holders for the West RFA region. Town location will often include nearest town to the apiarist business.

Prepared by: EBC (1999).

4.5.2 Resource use

All apiarist businesses indicated they used resource from public native forests in Victoria. Fifty-four per cent of these businesses also indicated they used resource from private native forests in Victoria.

Table 4.18 shows the percentage of apiarists that used public and private forests from specific FMAs in Victoria. Three of the four FMAs within the West RFA region (Midlands, Horsham and Portland) are common resource locations for apiarists in this region, with 75 % of apiarists using public forests in the Midlands FMA. The Bendigo, Central, Mid-Murray and Mildura FMAs, all of which are FMAs adjacent to the West RFA area, were also used by apiarists in this region.

| FMAs | Public native forests | Private native forests |
|-------------------|-----------------------|------------------------|
| Midlands | 75.0 | 37.5 |
| Bendigo | 62.5 | 16.7 |
| Horsham | 54.2 | 37.5 |
| Portland | 33.3 | 16.7 |
| Central | 25.0 | 16.7 |
| Mid Murray | 16.7 | 8.3 |
| Mildura | 16.7 | 16.7 |
| Otways | 8.3 | 4.2 |
| Dandenong | 4.2 | 0.0 |
| Benalla-Mansfield | 0.0 | 0.0 |
| Central Gippsland | 0.0 | 0.0 |
| East Gippsland | 0.0 | 0.0 |
| Tambo | 0.0 | 0.0 |
| Wangaratta | 0.0 | 0.0 |
| Wodonga | 0.0 | 0.0 |
| New South Wales | 16.7 | 4.2 |

Table 4.18 Percentage of apiarists obtaining resource from specific FMAs

Prepared by: EBC (1999).

An indication of the percentage of resource drawn from each FMA was also obtained from each apiarist businesses. Table 4.19 shows the mean percentage resource drawn by each apiarist from each FMA in Victoria. Resource from public native forests is primarily obtained from the Bendigo (29%), Midlands (24%) and Horsham (23%)

FMAs, with Horsham (34%) and the Midlands (26%) also being the primary location for resource drawn from private native forests.

| FMAs | Public native forests | Private native forests |
|-------------------|-----------------------|------------------------|
| Bendigo | 28.7 | 10.8 |
| Midlands | 24.4 | 26.5 |
| Horsham | 23.1 | 34.2 |
| Portland | 7.7 | 5.8 |
| Central | 5.4 | 6.1 |
| Mildura | 4.6 | 11.5 |
| Mid Murray | 2.7 | 2.7 |
| Otways | 1.2 | 0.8 |
| Dandenong | 0.8 | 0.0 |
| Benalla-Mansfield | 0.0 | 0.0 |
| Central Gippsland | 0.0 | 0.0 |
| East Gippsland | 0.0 | 0.0 |
| Tambo | 0.0 | 0.0 |
| Wangaratta | 0.0 | 0.0 |
| Wodonga | 0.0 | 0.0 |
| New South Wales | 3.7 | 1.5 |

 Table 4.19
 Mean percentage of resource obtained from FMAs by apiarists

Note: Mean percentages are used in the table and provide an indication of the amount of resource drawn by apiarists from public and private forests within each FMA.

Prepared by: EBC (1999).

Table 4.20 shows the percentage of resource drawn from public and private native forests within and outside the West RFA region. The primary resource use for apiarists are public native forests (78%), with 48% of the resource drawn from the West region. In addition, 11% of resource is drawn from private native forest, combined 59% of all resource is drawn from within the West RFA region.

Table 4.20 Mean percentage of resource obtained from the West RFA region

| Location | Per cent |
|-----------------------------|----------|
| Public native forests | |
| Within the West RFA region | 47.7 |
| Outside the West RFA region | 29.8 |
| Private native forests | |
| Within the West RFA region | 11.5 |
| Outside the West RFA region | 11.0 |
| Total | 100.0 |

Note: Mean percentages are used in the table and provide an indication of the amount of resource drawn by apiarists from public and private forests within and outside the West RFA region. Prepared by: EBC (1999).

4.5.3 Employee profiles

Table 4.21 shows the profile of apiarist business employees. Eighty-six per cent of employees are male and the mean age of employees is 44 years. On average employees have been working in the current business for 18 years and have worked in this industry sector for 18 years. The majority of employees are long-term residents of the town they live in and have lived in their current town for an average of 29 years. Sixty-two per cent of employees have a year 10 or lower level of education. Sixty-six per cent of all employees are married with 27% of all employed partners working in the same industry.

| Table 4.21 | Apiarist | businesses: | emplo | yee profi | les |
|------------|----------|-------------|-------|-----------|-----|
| | | | | | |

| | Value |
|--|-------|
| Mean age of employee (years) | 43.9 |
| Per cent males | 85.7 |
| Per cent females | 14.3 |
| Employment | |
| Per cent full-time employment | 85.7 |
| Per cent part-time employment | 14.3 |
| Average number of hours worked per week | ND |
| Mean number of years working for current business | 18.5 |
| Mean number of years working in current industry sector | 17.5 |
| Per cent who have only worked in current industry sector | 44.4 |
| Per cent who have moved town to retain employment in industry | 13.8 |
| Median number of town moves to retain employment in industry | ND |
| Home ownership characteristics | |
| Mean number of years resident in current town | 29.4 |
| Home ownership (per cent) | |
| Rent home | 8.3 |
| Have a mortgage | 20.8 |
| Own the home | 70.8 |
| Highest level of education (per cent) | |
| Primary school | 3.4 |
| Year 7 | 3.4 |
| Year 8 | 10.3 |
| Year 9 | 17.2 |
| Year 10 | 27.6 |
| Year 11 | 10.3 |
| Year 12 | 6.9 |
| A trade or TAFE certificate | 20.7 |
| Degree or diploma | 0.0 |
| Marital status (per cent) | 0.0 |
| Married or defacto | 65.5 |
| Wildowed | 0.0 |
| Single | 24.1 |
| Separated or divorced | 10.3 |
| Destinars amployment characteristics (ner cent) | 10.5 |
| Eult time | 50.0 |
| Part-line | 30.0 |
| Not employed | 20.0 |
| Per cent with narther employed in same industry as employee | 20.0 |
| For ten with participation employed in same industry as employee | 21.3 |
| Mana family dial acteristics | 2.0 |
| Formity lifeouring area profiles (per cent) | 2.7 |
| A viger (are school) | 2.4 |
| E 12 years (primer school) | 2.4 |
| 13 - 12 years (phintary school) | 0.2 |
| 19 - 17 years (might school) | 1.1 |
| 10-24 years (young singles/couples) | 12.9 |
| 20-39 years (young/middle families) | 22.4 |
| 40-49 years (mature families) | 18.8 |
| 50–64 years (pre-retirement) | /.1 |
| 65+ years (elderly) | 0.0 |

Note: Based on a sample of 29 survey responses. 'ND' indicates insufficient or no data was available. Source: EBC (1999).



Figure 4.7 Location of apiarist businesses

4.6 Prospecting and mining

The return rate for prospecting and mining businesses was low (Table 4.1) and the only form of analysis that can be undertaken is to examine the town location of these businesses.

4.6.1 Location of prospecting and mining businesses

Figure 4.8 and Table 4.22 show that when Melbourne is excluded as the location of mining and prospecting businesses as this is clearly the postal address of the business, 62% of mining and prospecting businesses are located within the Midlands TRC, particularly the town of Ballarat.

| Town location | Number of businesses | Percentage of businesses |
|--|--|-----------------------------------|
| Midlands TRC | | |
| Ballarat | 3 | 12.5 |
| Daylesford | 2 | 8.3 |
| Towns with 1 prospecting or mining business | 10 | 41.7 |
| Total number of businesses | 15 | 62.5 |
| Located outside the West RFA (Bendigo region) | 9 | 37.5 |
| Total mining and prospecting businesses | 24 | 100.0 |
| Note: Resed on information supplied by the Prospecting and | Mining Association of Victoria and inc | Judge members within the West PEA |

Note: Based on information supplied by the Prospecting and Mining Association of Victoria and includes members within the West RFA region. Town location will often include nearest town to the business. No prospecting and mining businesses were located in the Otway, Portland or Horsham TRCs. Prepared by: EBC (1999).



Figure 4.8 Location of prospecting and mining businesses

4.6.2 Employee profiles: prospecting and mining

Table 4.23 shows the profile of prospecting and mining employees. Ninety-one per cent of employees were found to be male, with a mean age of 49 years. On average employees have been working in the current business for seven years and had worked in this industry sector for two years. The majority of employees are long-term residents of the town they live in having lived in their current town for an average of 21 years. Twenty-two per cent of employees had a year 10 or lower level of education. Eighty per cent of all employees were married with 31% of employed partners working in the same industry (based on returned industry surveys).

| Table 4.23 | Prospecting | and mining: | employee | profiles |
|------------|-------------|-------------|----------|----------|
| | | | | |

| Profile | Value |
|---|--------------|
| Mean age of employee (years) | 48.7 |
| Per cent males | 90.9 |
| Per cent females | 9.1 |
| Employment | |
| Per cent full-time employment | 63.0 |
| Per cent part-time employment | 37.0 |
| Average number of hours worked per week | ND |
| Mean number of years working for current business | 7.3 |
| Mean number of years working in current industry sector | 1.7 |
| Per cent who have only worked in current industry sector | 33.3 |
| Per cent who have moved town to retain employment in industry | 55.3 |
| Median number of town moves to retain employment in industry | 3.7 |
| Home ownership characteristics | |
| Mean number of years resident in current town | 20.6 |
| Home ownership (per cent) | |
| Rent home | 8.5 |
| Have a mortgage | 25.5 |
| Own the home | 66.0 |
| Highest level of education (per cent) | |
| Primary school | 2.0 |
| Year 7 | 0.0 |
| Year 8 | 10.2 |
| Year 9 | 2.0 |
| Year 10 | 8.2 |
| Year 11 | 4.1 |
| Year 12 | 6.1 |
| A trade or TAFE certificate | 26.5 |
| Degree or diploma | 40.8 |
| Marital status (per cent) | |
| Married or defacto | 79.6 |
| Widowed | 0.0 |
| Single | 18.4 |
| Separated or divorced | 2.0 |
| Partners employment characteristics (per cent) | |
| Full-time | 24.4 |
| Part-time | 24.4 |
| Not employed | 51.2 |
| Per cent with partner employed in same industry as employee | 31.4 |
| Family characteristics | 0 |
| Mean family size | 27 |
| Eamily lifecture are profiles (per cent) | 2 |
| 0_4 verse (pre-school) | 3 3 |
| 5-12 years (primary school) | 9.9 |
| 13–17 years (high school) | 9.1 |
| 18-24 years (value sindle/counles) | 7.1 |
| 25–39 years (vound/middle families) | 15.7 |
| 40-49 years (mature families) | 7 <u>7</u> Q |
| 50-64 years (pre-retirement) | 24.0 |
| 65 5 years (alderly) | 22.3 |
| | 7.4 |

Note: Based on a sample of 49 survey responses. 'ND' indicates insufficient or no data was available. Source: EBC (1999).

4.7 Tourism

As only 25% of tourism businesses who held permits for activities in public forests responded to the questionnaire (Table 4.1), the analysis of locational information is based solely on the database of licensed permit holders. As 31 employees of these tourism businesses completed questionnaires, an employee profile of these tourism businesses was developed.



Dunkeld Visitor Information Centre

4.7.1 Location

Figure 4.9 and Table 4.24 shows the town location of those tourism businesses that were known to operate in public forests within the West RFA region. What is immediately apparent from Table 4.24 is that 55% of these businesses were located outside of the four TRCs and the West RFA region, with 27% of all tourism businesses based in Melbourne metropolitan area. Only 45% of tourism businesses were located within the West RFA region. Information supplied in relation to the 113 tourism businesses also showed that 38% operated in areas along the West Coast, 16% operated in the Basalt Plains area, while a further 46% operated in the Grampians.

| Town location | Number of businesses | Percentage of businesses |
|--------------------------------------|----------------------|--------------------------|
| Otway TRC | | |
| Apollo Bay | 5 | 5.2 |
| Lorne | 3 | 3.1 |
| Camperdown | 2 | 2.1 |
| Towns with 1 businesses | 3 | 3.1 |
| Total | 15 | 7.2 |
| Midlands TRC | | |
| Anglesea | 2 | 9.1 |
| Ballarat | 2 | 9.1 |
| Ararat | 2 | 9.1 |
| Towns with 1 businesses | 16 | 16.7 |
| Total | 22 | 23.0 |
| Portland TRC | | |
| Portland | 3 | 3.1 |
| Nelson | 2 | 2.1 |
| Towns with 1 businesses | 6 | 6.2 |
| Total | 11 | 3.0 |
| Horsham TRC | | |
| Stawell | 4 | 4.2 |
| Natimuk | 4 | 4.2 |
| Horsham | 3 | 3.1 |
| Halls Gap | 2 | 9.1 |
| Towns with 1 businesses | 1 | 1.0 |
| Total | 14 | 1.0 |
| Other locations outside the West RFA | | |
| Melbourne Metropolitan area | 26 | 27.0 |
| Other town locations | 27 | 28.1 |
| Total | 53 | 55.2 |
| Total | 96 | 100.0 |

 Table 4.24
 Town location of tourism businesses (permit holders)

Note: Based on information supplied by the Department of Natural Resources and Environment (DNRE). Includes only those commercial tour operators with a permit to use public forests in the West RFA region. Town location will often include nearest town to the business. Seventeen tour operators were located interstate or the town location could not be identified. Prepared by: EBC (1999).



Figure 4.9 Location of licensed tourism operators

4.7.2 Location of tourism accommodation

Examining the location of tourism accommodation businesses throughout the region provides an indication of the location of tourism businesses and activity throughout the West RFA region. Table 4.25 and Figure 4.10 shows that towns located within the Midlands TRC have the highest percentage of tourism accommodation businesses in the region, accounting for 49% of all businesses. The towns of Ballarat (10%) and Warrnambool (7%) have the highest percentage of all tourism accommodation businesses.

| Town location | Number of businesses | Percentage of businesses |
|--|----------------------|--------------------------|
| Midlands TRC | | |
| Ballarat | 97 | 10.0 |
| Hepburn Springs | 28 | 2.9 |
| Daylesford | 25 | 2.6 |
| Queenscliff | 20 | 2.1 |
| Torquay | 19 | 2.0 |
| Ararat | 17 | 1.8 |
| Anglesea | 14 | 1.4 |
| Bacchus Marsh | 13 | 1.3 |
| Ocean Grove | 12 | 1.2 |
| Sunbury | 11 | 1.1 |
| Werribee | 10 | 1.0 |
| Other locations (less than 9 per town) | 211 | 21.8 |
| Total tourism accommodation businesses | 477 | 49.4 |
| Portland TRC | | |
| Warrnambool | 65 | 6.7 |
| Port Fairy | 34 | 3.5 |
| Portland | 29 | 3.0 |
| Hamilton | 24 | 2.5 |
| Other locations (less than 9 per town) | 63 | 6.5 |
| Total tourism accommodation businesses | 215 | 22.3 |
| Otway TRC | | |
| Apollo Bay | 38 | 3.9 |
| Lorne | 27 | 2.8 |
| Colac | 13 | 1.3 |
| Terang | 10 | 1.0 |
| Port Campbell | 10 | 1.0 |
| Other locations (less than 2 per town) | 78 | 8.1 |
| Total tourism accommodation businesses | 176 | 18.2 |
| Horsham TRC | | |
| Horsham | 29 | 3.0 |
| Halls Gap | 26 | 2.7 |
| Stawell | 22 | 2.3 |
| Other locations (less than 9 per town) | 21 | 2.2 |
| Total tourism accommodation businesses | 98 | 10.1 |
| Total number of tourism accommodation businesses | 966 | 100.0 |

Table 4.25 Town location of tourism accommodation businesses

Source: Yellow Pages (App Prepared by: EBC (1999).



Figure 4.10 Location of tourism accommodation in the West RFA region

s (April 1999) Accommodation listing.

4.7.3 Towns visited by tourists

The questionnaire distributed to tourism businesses (permit holders) asked each business operator to identify those towns in the West RFA region they considered tourists were most likely to visit. Although only based on 26 responses, Table 4.26 shows the main towns to be Halls Gap (100%), Apollo Bay (85%), Lorne (81%) and Port Fairy (81%).

| Town | Count | Por cont |
|---------------|-------|----------|
| | Count | Fercent |
| Halls Gap | 26 | 100.0 |
| Apollo Bay | 22 | 84.6 |
| Lorne | 21 | 80.8 |
| Port Fairy | 21 | 80.8 |
| Anglesea | 18 | 69.2 |
| Warrnambool | 18 | 69.2 |
| Daylesford | 17 | 65.4 |
| Port Campbell | 17 | 65.4 |
| Ballarat | 16 | 61.5 |
| Ocean Grove | 9 | 34.6 |
| Portland | 9 | 34.6 |
| Dunkeld | 8 | 30.8 |
| Horsham | 6 | 23.1 |
| Hamilton | 5 | 19.2 |
| Macedon | 5 | 19.2 |
| Stawell | 5 | 19.2 |
| Ararat | 2 | 7.7 |
| Beaufort | 2 | 7.7 |
| Forrest | 2 | 7.7 |
| Camperdown | 1 | 3.8 |
| Heywood | 1 | 3.8 |
| Bacchus Marsh | 0 | 0.0 |
| Casterton | 0 | 0.0 |
| Edenhope | 0 | 0.0 |
| Total | 26 | 100.0 |

| Table 4.26 | Perception of main tourism | towns amongst tourisr | n business operators |
|------------|--------------------------------|------------------------|-----------------------|
| | i er eep tien er mann te ansin | to mis amongst to anon | n basinioss operators |

Note: This is a multiple response table, where all rows are independent. Source: EBC (1999).

4.7.4 Employee profiles: tourism

Table 4.27 shows the profile of tourism business (permit holder) employees. Seventyone per cent of employees were male and the mean age of employees was 39 years. On average employees had been working in their current business for five years and had worked in this industry sector for 9 years. The majority of employees had been residents of the town in which they lived for an average of 12 years. Seventy-four per cent of employees had a year 12 or higher level of education. Sixty-eight per cent of all employees were married with 55% of all employed partners working in the same industry.
| Table 4.27 | Tourism: er | mployee | profiles |
|------------|-------------|---------|----------|
| | | | |

| Drafile | Value |
|--|-------|
| | |
| Mean age of employee (years) | 38.7 |
| Per cent males | /1.4 |
| Per cent remaies | 28.6 |
| Employment | |
| Per cent full-time employment | 64.5 |
| Per cent part-time employment | 35.5 |
| Average number of hours worked per week | 12.0 |
| Mean number of years working for current business | 5.1 |
| Mean number of years working in current industry sector | 9.3 |
| Per cent who have only worked in current industry sector | 33.3 |
| Per cent who have moved town to retain employment in industry | 16.1 |
| Median number of town moves to retain employment in industry | 1.0 |
| Home ownership characteristics | |
| Mean number of years resident in current town | 12.3 |
| Home ownership (per cent) | |
| Rent home | 32.3 |
| Have a mortgage | 25.8 |
| Own the home | 41.9 |
| Highest level of education (per cent) | |
| Primary school | 0.0 |
| Year 7 | 0.0 |
| Year 8 | 0.0 |
| Year 9 | 9.7 |
| Year 10 | 9.7 |
| Year 11 | 6.5 |
| Year 12 | 12.9 |
| A trade or TAFE certificate | 9.7 |
| Degree or diploma | 51.6 |
| Marital status (per cent) | |
| Married or defacto | 67.7 |
| Widowed | 0.0 |
| Single | 32.3 |
| Separated or divorced | 0.0 |
| Partners employment characteristics (per cent) | 010 |
| Full-time | 63.6 |
| Part-time | 18.2 |
| Not employed | 18.2 |
| Per cent with partner employed in same industry as employee | 55.0 |
| Family characteristics | 55.0 |
| Maan family size | 2.6 |
| Family lifecycle age profiles (per cent) | 2.0 |
| | 13.8 |
| 5 - 12 years (pre-solidor) 5 - 12 years (nrimary school) | 13.0 |
| 12 years (pilitial y school) | 41.4 |
| 19-17 years (migh school) 19-24 years (migh schools) | 20.7 |
| 25 20 young singles/couples/ | 20.7 |
| 40 your (mature families) | 0.0 |
| 40-47 years (initiation and initiation and initiatio and initiation and initiation and initiatio | 3.4 |
| 50-64 years (pre-retirement) | 0.0 |
| 65+ years (elderly) | 0.0 |

Note: Based on a sample of 31 survey responses. Source: EBC (1999).

5 Stakeholder views

In recent years, there has been a growing interest in forest issues and a considerable increase in the number of groups wishing to influence forest use and management. These groups often bring quite different perspectives and values to particular issues. Often it is those groups in close proximity to the forest, those with pre-existing rights, local knowledge and high dependency that have less power or influence in the forest debate (Colfer 1995). An analysis of the main issues and the response of different stakeholder groups is useful in predicting how individuals and groups may respond to different policy alternatives.

5.1 Scoping of issues and interests

As part of the social assessment process, the Forest Community Co-ordinator for Victoria has had ongoing discussions and consultations with the range of key stakeholder groups and individuals at a state, regional and local level who have had an interest in the forests within the West region.

These discussions have led to the identification of key issues for each respective group. As may be expected, representatives from various groups articulate a diverse range of views. The issues reflect both the desire for future opportunities as well as concerns being experienced.

Stakeholder interests have been categorised into eight main interest group ares, with the issues raised by each group displayed below. The Stakeholders have been identified as:

- timber industry
- tourism, recreation and outdoor education
- conservation
- apiary
- grazing
- other forest uses (wildflowers, seed collectors, firewood collectors)
- mineral production
- Aboriginal groups/communities.

This particular section of the report has been structured to identify the views of each group as expressed by those involved in discussions.

5.2 Timber industry

Issues raised by these groups related predominantly to access to the forest and resource security. Those involved sought better public education on regeneration potential. They expressed the desire for long-term planning in harvesting operations to create employment certainty and allow them to pursue new business and market

opportunities and facilitate job creation. There was also a desire to minimise conflict with conservation groups

5.2.1 General

- Industry has been affected by a reduction of resource, affecting employment and the economy of local towns.
- Uncertainty of RFA and Govt policy.
- Continued uncertainty is affecting investment.
- Continued restructure of the timber industry.
- Desire to achieve a balanced outcome in the RFA.
- Desire to see a scientific approach to decision making based on facts.
- Decrease in export markets for pulpwood.
- Uncertainty for industry workforce impacts on financial stability.

5.2.2 Forest management issues

- Need consistent forest policy.
- Need long-term licences/contracts to secure harvesting operations.
- Require RFAs to secure future in volume, species, grade and location.
- Seek full utilisation of residual wood.
- Timber products are renewable, biodegradable, and recyclable.
- Decrease in resource availability for harvest.
- Uncertainty regarding sustainable yield.
- Desire to work uninterrupted in logging coupes.
- Increased emphasis of value adding.
- Increased risk of bushfires through increase in National Parks.
- Maintain current access to forests.
- Support of sustainable harvesting.
- Support of Government staff to control forest use.
- Proud of forest management as world's best.
- Improved silvicultural activities and regrowth programs.
- Improved safety practises in logging coupes.
- Improved log grading systems.

5.2.4 Opportunities

- Investment and development of downstream processing in Victoria or Australia.
- Development of additional paper manufacturing facilities in Victoria, instead of exporting woodchips.
- Potential for expansion of export licences for woodchips.
- Increased opportunity for job creation.
- Increased employment opportunity through plantations.
- Pressure for further plantations development.
- Increase in plantations development.
- Increased use of private resources in the timber industry.

5.2.3 Other issues

- Better public education required on timber industry.
- Desire to minimise conflict with conservation groups.
- Concern that outside groups have a strong influence on local issues that directly affect local communities.
- Media bias on forest issues.
- Recognition that forest operators are also concerned about the environment.
- Desire to see local town remain the same or slightly bigger.
- Desire to see a more commercial orientation with increase development and employment opportunities.
- Desire to see the towns clean, safe and vibrant.

5.3 Tourism/recreation

Tour operators were concerned about some forest management practices, particularly the visual impact of harvesting on their operations. There was support for selective harvesting, replanting of mixed species after harvesting and the need for greater maintenance of forest tracks and noxious weeds. Access was identified as an issue and the need to be informed about forestry activities and restrictions on access to public forests due to harvesting activities. Opportunities related to increased linkages between tourist operators and other forest based industries, in particular the need for educational tours between the timber industry, forest staff, and tourism operators. Development of ecotourism was identified as a further opportunity in the West area.

5.3.1 General

- Requirement for increased ecotourism/forest information signs.
- More staff for Parks Victoria.
- Encourage sustainable, low-impact tourism.

5.3.2 Forest management issues

- Need for buffer zones between tourist areas and harvested coupes.
- Concern at reduction in the area suitable for multiple use activities within forest areas.
- Greater consideration required in harvesting techniques of tourism needs.
- Preference for mixed species plantings following harvesting.
- Increase emphasis on tourism in forest area, than timber harvesting.
- Concern about the visual impact of clearfelling.
- Stricter control of tourism permits by Parks Victoria.
- Recognition of the importance of forests for recreation.
- Greater involvement in the management of forest with user businesses.
- Need to be informed of any restrictions on access to public forests.
- Support for genuine sustainable harvesting.
- Closure of trails, and poor links between trails.
- Need for greater maintenance of forest tracks.
- Greater awareness of trail needs by groups other than walkers.
- Improved maintenance of roads.
- Need for increased tourism facilities in Parks—e.g. toilets, signs, information posters/brochures.
- Concern at increasing permit and daily usage costs.
- Acceptance of permit system to control tourism operator.
- Greater control of illegal tour operators and recreation use.
- Believe tourism fees based on size of group and length of time in forest areas.
- Restrictions on the size of tourist groups.
- Improve safety in forest areas.
- Further development of hardwood plantations.
- Desire to see increase inventory work on flora and fauna.

5.3.4 Opportunities

- Increased ecotourism providing regional employment opportunities.
- Need to retain forest areas within 1 hour drive of Melbourne for tourism.
- Further develop nature based tourism/recreation potential.
- Links between trails to create a useable network.
- Allow tourism operators to take small groups camping in National Parks.
- More investment in agroforestry and plantations.
- Increase government funding on tourism infrastructure.

5.3.3 Other issues

- Increased public eduction on the environment by tourism guides.
- Desire to see environmental friendly tourism as the economic base for communities, but not too touristy.
- Desire to see the town remain the same, but more employment, especially for the youth.
- More National Parks and trees surrounding the town.

5.4 Conservation

Conservationists expressed concern about forest management practices and their environmental impacts, and were keen to have a greater participation in forest management. They expressed a desire for more areas to be placed in National and State parks and reserves. Stakeholders also raised issues in relation to loss of biodiversity, wilderness and old growth values, soil erosion, and weed infestation. Within the West, major opportunities included expansion of nature based tourism potential to support other regional economic developments. There is also a potential for greater links between the 'High Country' and the coastal environments.

5.4.1 General issues

- Concerned whether their requirements will be adequately met under the RFA.
- Require greater access to Departmental forest information.
- Question some of the scientific assessment work being carried out and lack of inclusion of local scientific knowledge.

5.4.2 Forest management issues

- Harvesting practices causing soil erosion and affecting water quality.
- Need for greater protection of old growth forests, wilderness values and biodiversity.
- Concern that industry practices are not sustainable—too much overcutting.
- Concern about inadequate regeneration after logging.
- Concern about forest management and harvesting techniques.
- Desire for more areas to be placed in National and State Parks and Reserves.
- Desire less availability of resource from Public Native Forests for Timber Industry.
- Protection of native grasses.
- Protection of native flora and fauna.
- Support for biolinks between forest areas.
- Concern about clearfell practises.
- Concern over perceived expanding woodchip production.
- Concern at loss of habitat for native species due to harvesting.
- Concern over weed infestation and feral species.
- Concern that some fuel reduction burning is 'too hot' for regeneration.

5.4.3 Other issues

- Belief that trucks are destroying tourist roads.
- Support for environmental protection initiatives such as water issues, wildlife protection and a shift towards mixed species landscape plantings.

5.4.4 Opportunities

- Accelerate nature based tourism potential to support other regional economic developments.
- Access wealth of local environmental knowledge within extensive West network.

5.5 Other forest use (seed collection, firewood and craftwood collection, wildflower)

Those involved in forest uses other than timber harvesting, questioned particular management practices in relation to their business. For example, apiarists believed that selective harvesting enabled better retention of trees valuable for honey, and there was a need for mixed species reforestation. Concerns were also expressed in regard to the need for all forest uses to be fully considered and improved access to obtain longterm licences for other forest produce (eg seed and craftwood collection). Opportunities were seen to lie in continued access for multiple use, increased links between other forest products and tourism, and increased support for outdoor education.

5.5.1 General

- Need for all forest uses to be fully considered.
- Need long-term availability to resources to support business.
- Effected by changes in Government policy and management.
- Desire to achieve a balanced outcome in the RFA.

5.5.2 Forest management issues

- Need for mixed species reafforestation.
- Continued access for multiple forest users in all forests.
- Continued access to State and National Parks.
- Need for improved access to obtain additional forest produce (e.g. seed and craftwood collection).
- Concern regarding loss of timber left on the forest floor which could be used for firewood or craftwood etc.
- Clearfelling practices are too severe.
- Increase understanding of firecutter businesses in forest management.
- Fire regimes burn saleable wood.
- Want to work to the Code of Forest Practice for 12 months—work when dry, stop when wet, not by calendar dates.
- Reduced access for firewood cutters.
- Increased risk of bushfires through increase in National Parks.
- Support for continued sustainable firewood harvest.
- Support for current forest management practises.
- Support for decrease in royalties.
- Desire to see firewood collection managed and controlled equal to others industries.
- Support for a increase in studies of flora and fauna.
- Need for improved maintenance of forest roads.
- Prefer allocated areas for firewood and post collection.
- Increase area for firewood cutters.
- Continued access for non-commercial firewood cutters.

- Support for plantations development.
- Ability to cut dry wood.
- Believe wood on the ground in National Parks needs to be managed.
- Allow collection of waste wood after timber harvest.
- Support for sustainable timber harvest.
- Need to control feral animals.
- Concern regarding weed infestation.

5.5.3 Other issues

- Need for increased protection of old growth forest.
- Decline in employment from reduced access to forest areas.
- Potential impact of decrease forest activity on rural community.
- Would like to see town remain the same, with some increase in industry and employment.
- Prefer the local town to be more prosperous.

5.5.4 Opportunities

• Continued access for multiple forest users in all forests.

5.6 Apiary

5.6.1 General issues

- Support for balanced outcome with multiply use access.
- Need long-term availability to resources to support business.
- Continued access for multiple forest users in all forests.

5.6.2 Forest management issues

- Selective harvesting practices enable better retention of trees valuable for honey.
- Fuel reduction burning affecting honey and pollen sources.
- Need for mixed species reafforestation.
- Perceived loss of access to hive sites when forests are placed in reserve.
- Loss of access to traditional hive sites.
- Distance to and cost of travelling to sites affecting income from honey.
- Continued access to State and National Parks.

- Need for improved maintenance of forest roads to hive sites.
- Feel pushed out of forest areas by harvesting.
- Impact of timber harvesting on mature trees for honey production.
- Ease harvesting summer flowering trees.
- Believe that apiary has low or little impact on forests.
- Need more hive sites.
- Support for sustainable harvesting.
- Better use of local knowledge.
- Need clean sites to put down hives.

5.6.3 Other issues

- Reduction in town employment generally.
- Control of mistletoe.
- Support for tree plantings.
- Feel that outsiders have more say than on issues that directly affect the local community.

5.6.4 Opportunities

- Prefer the town to become more viable, with more trees.
- Continued access for multiple forest users in all forests.

5.7 Grazing

5.7.1 General issues

- Desire to achieve a balanced outcome in the RFA.
- Need for all forest uses to be fully considered.
- Need long-term availability to resources to support business.
- Change in Government policy and management.

5.7.2 Forest management issues

- Increased public pressure not to graze in forest areas.
- Concerns about increase in fire.
- Reduced access to grazing areas.
- Depend on security of grazing licences.

- Continued access for multiple forest users in all forests.
- Continued access to State and National Parks.
- Support of continued sustainable timber harvest.
- Support to maintain current grazing licences.
- Grazing can benefit forest area by reducing fire hazards.
- Need to control fire burns.
- Need improved fencing of forest areas.
- Clear forest waste.
- Need local knowledge and apply flexible forest management for local conditions.
- Support for increased planting to reduce salinity.

5.8 Mineral Production (including prospecting and fossicking)

Access to public land was a prominent issue for miners and prospectors, who believed that enough forest areas were already in reserves. They expressed a desire to have a greater participation in forest management, and would like to see improved practices in relation to fire management, weed control and track maintenance. It was indicated that outcomes could be achieved which satisfied both industry and conservation goals. Make more opportunities out of mining, prospecting and fossicking activities.

5.8.1 General issues

- Increased consultation on forest use and forest values is required by members.
- Balanced approach is required.
- Uncertainty over access for mining/prospecting, uncertainty for industry and workers.
- No need for further National Parks.
- Require all public and private native forest to be available for prospecting.
- Possible to achieve outcomes which can satisfy industry and conservation goals.
- Uncertainty about RFA and continued access to forest areas.
- Investor uncertainty on security of mining and prospecting.
- Delay and difficulties in the approval process for exploration licences.
- Affected by native title.
- Concern over Box Iron bark area.

5.8.2 Forest management issues

- Belief that enough forest areas are already closed up in reserves.
- Decline in maintenance of track access.
- Decreased access to areas for prospecting.
- Desire to see access maintained under an RFA.
- Recognition that prospecting and exploration are low impact activities.
- Continued access for multiple forest users in all forests.
- Desire to achieve a balanced outcome in the RFA.
- Suggest that mining is controlled through use of bonds.
- Defined obligations in forest areas.
- Support for current forest management.
- Support for continued sustainable timber harvest.
- Support for a decrease in government charges.
- Value forest areas for their own sake.
- Support for the control of timber harvesting.

5.8.3 Other issues

- Minorities having a large voice.
- Recognition that prospecting and mining beings in income for rural towns.
- Value prospecting as a hobby and exercise for families and retired couples.
- Concern about the impact of tourism on the environment.

5.9 Landholders

Landholders discussed the need for shared use of forests by industry, tourism and recreational users. Concern was raised about the visual impact of harvesting and the need for adequate buffer zones to minimise the visual impacts of forestry activities. Landholders were concerned about weed infestation and water quality because of harvesting techniques and burning practices. Road damage and safety issues were also outlined. Opportunities for farm forestry and plantation development were considered important on both public and private land.

5.9.1 Decision-making issues

- Would like more say to get better outcomes.
- Desire to participate in the debate.

• Would like to see greater links between the range of forestry programs—public and private.

5.9.2 Forest management issues

- Public/private forest boundary issues are a concern due to weeds, fences, fire and wildlife.
- Concern regarding water quality as a result of harvesting technique.
- Concern about burn off practices (some too hot, too many get away).
- More information/education about forest management on public and private land.

5.9.3 Other issues

- Concern about the visual impact of harvesting.
- Buffer zones are needed to minimise visibility of harvested area.
- Would like access to use forest residue.
- Concern at speed of trucks on local roads and damage made by heavy log trucks.
- Concerned about the landscape values in regard to the increase in plantations.

5.9.4 Opportunities

- Need to increase plantations of native species on both public and private land.
- Greater shared use of forests by forest industry, tourism, and recreation users.
- Commercial farm forestry and plantation potential.
- Opportunity for 'off-farm' income in forest industries.
- Farming and ecotourism potential for landholders.

5.10 Local government

Local government representatives focused on planning controls and infrastructure provision, particularly concerning road maintenance and upgrading. Concerns were raised regarding water quality and environmental aesthetics. Opportunities were seen to exist in terms of increased support for farm forestry, improved relationships with the timber industry and the economic benefits of this partnership for local communities.

5.10.1 Decision-making issues

• Represented on several timber/tourism/environment committees at a State and regional level, and wish to have further involvement.

• Would like to be advised more quickly regarding any changes to forest management planning or proposals in both public and private land.

5.10.2 Forest management issues

- Want long-term view and planning for industry requirements, to maximise potential in regard to regional economic development.
- Shared use of roads by tourism and timber industries—both require different attention.
- Concern about the visual impact of harvesting.
- Wish to be involved in discussions regarding better planning for landscape buffer zones pre timber harvesting.
- Require substantial funding for road maintenance and upgrading.
- On-going clarification regarding gain or loss of rate revenue associated with forestry activities.
- Planning controls need reviewing on a regular basis for public and private forestry.

5.10.3 Other issues

- Concern in relation to water quality.
- Environmental aesthetics of the area need to be protected.
- Require increased support from government for farm forestry.
- Greater 'lead time' regarding any forest related matters being undertaken, in order to give landholders more notice.

5.10.4 Opportunities

- Economic benefits from industry through direct employment, value of goods produced and flow-on effects to the regional economy.
- Further develop relationship between timber industry, tourism, and landholders.
- Increased forest themes throughout West for timber products, outdoor education, and recreational use.

5.11 Aboriginal groups/communities

Aboriginal groups expressed a need for ongoing dialogue and involvement after signing of the RFA to ensure that their perspectives and interests were taken into account. These included continued access to sites of significance; input into forest management plans; and respecting their right to not have some significant sites identified or listed on maps. Native Title and associated land claims, the impacts of logging in areas of historical cultural significance, and employment opportunities in forest management were foremost issues.

5.11.1 Decision-making issues

- In relation to participation in decision making, more discussion is needed—not large written reports.
- Need for on-going communication and involvement after West RFA is signed.
- Need longer time frame to respond, especially with new Aboriginal committees being formed.

5.11.2 Forest management issues

- Need to understand that Aboriginal groups do not want to have some areas of Aboriginal cultural significance identified or listed on maps.
- Traditional need for Aboriginal communities to have access to the forests for cultural purposes.
- More direct dialogue and greater participation in the development of forest management plans.
- Request that Aboriginal interests and perspectives are seen as separate issues rather than as an integral part of forest management and decision making.
- Need for further training of forestry workers in identifying Aboriginal sites.

5.11.3 Other issues

- Foremost concern is Native Title and associated land claims.
- Major unemployment problems generally, and would like some opportunities realised within forest management roles.
- Desire greater recognition of need for Aboriginal communities to have access to the forests for traditional/cultural purposes.
- Concern over logging in sensitive areas of historical/cultural significance.
- Deterioration in water quality due to harvesting in some areas.
- Want more outcomes from West RFA for future involvement in forest management than was achieved from involvement with the East West RFA.

5.11.4 Opportunities

- Need for increased employment opportunities for Aboriginal people in forest management roles, regeneration of forested lands and as cultural officers.
- Greater recognition and involvement with the range of facilities at the West, and the East, West, and Central West Co-operatives.
- Need to realise the potential for increased Aboriginal cultural tourism.
- Development of initiatives such as 'Bush Tucker', revegetation, cultural activities and tours.

6 Community case studies

Within the West region a total of six case study communities, were selected to provide a more detailed analysis of communities within the region and their linkages to the forest resource. The communities were selected according to the following criteria:

- population size;
- diversity of the local economy; and
- forest industry dependency, e.g. tourism, timber industry, apiary.

The communities selected differed in terms of the diversity of their local economies. Some of the communities selected were more dependent upon forestry as a main industry within their locality, while others had a more diverse economic base. Furthermore, communities were selected according to their population size (small, medium, and large), as well as their potential to be impacted by changes in forest activity. These communities were largely those with a greater reliance on forestry, as measured by number of forest industries within the locality, and a higher degree of employment in forest industries. Stakeholders were consulted about the proposed case study areas at the public meetings when the West RFA was launched.

A variety of methods were employed to develop a detailed profile of each case study area, including an assessment of the social and economic structure of communities, and assessments of significant events in the community and community concerns and aspirations. The analysis draws on information collected during the workshop, as well as other data such as the ABS statistics, Shire reports, community service directories, travel and tourist brochures, Land Conservation Council reports and other publications and extensive fieldwork undertaken by the Victorian Forest Community Co-ordinator.

The term 'community' in the context of the case studies is used in a broad sense, and includes not only residents in the district, but also service providers, Local, State and Commonwealth government authorities, local community groups and other organisations and individuals who have significant expertise or local knowledge of an area. The methods employed aimed to maximise community ownership of the data and allow active participation in the assessment process.

6.1 Community workshop process

To gain a better appreciation of how individuals viewed their communities community workshops were conducted at a central locality within the following case study areas: Apollo Bay, Colac, Ballarat, Daylesford, Dunkeld and Heywood. The workshops aimed to include representatives from a cross section of the community, see Table 6.1.

The workshop was structured around asking the participants four questions:

- What have been the significant events in your community in the last ten years? ٠
- How did your community manage two of these events? •
- How do you feel about your community? •
- What are your visions for your community? •

Table 6.1 Sectors of the community from which workshop participants were invited

| Industry | Apiarists, forest contractors/subcontractors, mill workers, mill management, unions, seed collectors, firewood collectors, tourism operators, other forest users |
|--------------------------|---|
| Forest agencies | Regional staff |
| Conservation | Local environment groups |
| Community infrastructure | Commerce/finance, education, health, housing, recreation, emergency services, senior citizens, youth, retail and trade, local government |
| Indigenous communities | Land councils, local residents |
| Landholders | Local farmers, Landcare groups |

The characteristics of the case study communities selected are outlined in Table 6.2 below.

| | Township | | | | | |
|---|--|---|---|--|---|---|
| Characteristic | Apollo Bay | Colac | Ballarat | Daylesford | Dunkeld | Heywood |
| Local government area | Colac-Otway | Colac-Otway Shire | Ballarat | Hepburn | Southern Grampians | Glenelg |
| Population | 979 | 9793 | 64831 | 3278 | 444 | 1305 |
| % population under 15 years | 17 | 23 | 22 | 20 | 21 | 23 |
| % population 60 years and over | 27 | 23 | 18 | 24 | 25 | 23 |
| Median age | 40 | 36 | 32 | 39 | 42 | 36 |
| Australian born (%) | 91 | 95 | 93 | 83 | 94 | 95 |
| Labour force | 434 | 4089 | 27893 | 1291 | 169 | 514 |
| Unemployment rate (%) | 11 | 8 | 13 | 14 | 14 | 9.3 |
| Living at a different address | 44 | 32 | 41 | 37 | 31 | 36 |
| 5 years ago (%) Family composition (%) | | | | | | |
| Families with children | 22 | 30 | 31 | 24 | 31 | 32 |
| Families with no children | 32 | 25 | 22 | 25 | 25 | 24 |
| One parent families | 7 | 11 | 12 | 11 | 8 | 12 |
| Lone persons | 32 | 29 | 27 | 32 | 32 | 29 |
| Other | 7 | 5 | 8 | 8 | 4 | 3 |
| Median household income (\$/wk) | 408 | 469 | 500 | 398 | 434 | 467 |
| Total number of dwellings | 794 | 4285 | 26521 | 1899 | 216 | 551 |
| Separate house (%) All dwellings (%) | 83 | 88 | 84 | 91 | 95 | 95 |
| Owned | 25 | 45 | 40 | 37 | 53 | 44 |
| Being purchased | 10 | 21 | 25 | 15 | 16 | 23 |
| Rented | 14 | 20 | 26 | 16 | 11 | 20 |
| Unoccupied | 50 | 10 | 9 | 30 | 16 | 11 |
| Main industries in township | Accommodation, cafes and restaurants Retail trade Construction | Retail trade Manufacturing Health and community services Education | Retail trade Manufacturing Health and community services Education | Manufacturing Accommodation, cafes and restaurants Retail trade Health and community services | Agriculture forestry and fishing Education Government administration Retail trade | Manufacturing Retail trade Health and community services Education |

Table 6.2 Characteristics of case study communities

6.2 Apollo Bay case study area

Apollo Bay is a coastal township situated on the Great Ocean Road 186 km south west of Melbourne, and is one of the major centres in the Colac Otway Shire. The township has a small harbour and sandy beaches, whilst to the north the Otway

Ranges with its rainforests and waterfalls provides a lush backdrop. Historically, timber and fishing were the key industries, but today tourism is the major employer. It is a now a popular holiday destination, with holiday makers doubling the permanent residential population in the summer. People are also moving to the area to retire. The town also provides a number of important services to the local community, businesses and industries.



Apollo Bay

6.2.1 History

The Narragoort Barrath tribe from Curdies and Sherbrooke Creeks originally inhabited Apollo Bay. The town was named after the schooner Apollo who sheltered there in 1946, as the Bay afforded good shelter from southerlies and westerlies. In the early 1840s, a whaling station was established on Point Bunbury, but operated for less than a decade.

Around 1850 the plentiful supply of timber attracted timber splitters to the area, who floated the timber to small schooners in the bay. In 1852 the first timber mill was erected using water from the Clynes Creek, but closed due to inadequate water pressure. The following year, the Apollo Bay Company constructed a mill on the Barham River, again water pressure was inadequate so the mill was converted to steam. Later, a jetty on Point Bunbury and a wooden tramway, nearly three miles in length, was constructed to transport the timber. During 1861, there was an influx of people into the Otways to split timber for the Melbourne to Bendigo railway line, although numbers had decreased by the mid 1860s.

Land cleared by the early mills was opened for selection in the early 1860s and Apollo Bay become a thriving township. In 1873 the first guesthouse called Milford House was built and could accommodate more than 50 guests.

However, the settlement remained relatively isolated by the steep inaccessible tracks, and access was mainly by sea. In 1873 a fortnightly mail coach service commenced between Apollo Bay and Birregurra, but passengers had to walk parts of the uphill trip. Early settlement was on the hill but slowly spread to the north around the Bay, and although Apollo Bay had a school, the difficult terrain meant small one-teacher schools were scattered around the district so that the children could still receive an education.

A narrow gauge railway line, constructed in 1902, was the main route from Beech Forest to Colac.

The Apollo Bay Shipping Company, formed after the First World War, traded between Melbourne and Apollo Bay. Later, a coastal steamer, *Casino*, provided the major transport link for Apollo Bay, but sank in heavy seas off Apollo Bay in 1932. Today, the coastline has 23 shipwrecks within a 15-mile radius of Apollo Bay, although the government erected the Otway Lighthouse in 1848.

The first commercial fishing boat started operating around 1930. By 1948 the fleet had expanded to a peak of 28 boats, although the boats were limited in size to 24 feet to enable them to be lifted onto the pier in rough weather. The construction of the breakwater, completed in 1956, enabled the vessels to increase to 30 to 40 feet with more sophisticated equipment to search for crayfish, shark and barracouta.

Initially, distance and lack of refrigeration made it difficult to take fish to the Melbourne market, so the industry mainly relied on the local trade. The completion of Wild Dog Road in 1927 and the Great Ocean Road in 1932 reduced the isolation from markets and enabled fish to be transported daily by road to Melbourne markets. As a consequence fishing became a major industry in Apollo Bay.

The opening of the Wild Dog Road and the Great Ocean Road also had a major impact on tourism, accelerating the number of tourist to the Apollo Bay area.

6.2.2 Population characteristics

In 1996, Apollo Bay had a population of 979 people and 392 households. It has a relatively small number of young people under 15 years (17.4 per cent), whilst 27.3 per cent are sixty years and over.

Ninety-one per cent of the population was born in Australia, and only 56 per cent have lived in Apollo Bay for over five years.

Although 83 per cent of the housing stock is separate houses there is a large amount of other forms of accommodation—units, motels, guesthouses, bed and breakfasts, cabins, and caravan parks to meet the needs of tourists and holiday makers. Approximately half of the dwellings are holiday homes or weekenders as indicated by the extremely high unoccupied rates on the night of the Census (50 per cent).

Apollo Bay has a labour force of 434 people, and 25.6 per cent are employed in the accommodation, cafes and restaurant (22.7 per cent), retail trade (12.4 per cent) and construction (10.1 per cent) sectors reflecting the importance of tourism. Fishing and timber only directly employs 5.7 per cent and manufacturing an additional 6.2 per cent. The unemployment rate is 10.8 per cent. The median income is \$408 per week.

6.2.3 Community infrastructure

Otway Health and Community Services operates an 8-bed hospital which provides inpatient as well as emergency care, post-surgical services, physiotherapy, occupational therapy, and podiatry on an sessional basis, and respite and nursing home care. Obstetric services are not provided because of the isolation, and problems of transferring patients during an emergency. The OHCS also provides a Childcare Centre, a Neighbourhood House Program as well as an Adult Education Program.

Three private medical practitioners and private dentists from Colac provide dental services on a weekly basis. A private psychologist has a practice in the town. There is also a range of alternative health professionals, such as massage therapists and acupuncturist.

The town has a small shopping strip with stylish cafes and restaurants, and antiques shops to attract visitors. It also provides basic commercial services such as a supermarket, chemist, banks and ATMs, newsagency, hardware, fishing and sports tackle, motor repairs, garages, and a post office. There is a wide range of accommodation to suit different needs in close vicinity to the centre—hotels, caravan parks, motels, units, houses and four star accommodation.

The township has a preschool, and a higher elementary school to cater to the resident community. There are also two churches, and a number of community groups, such as Lions, Masons, Red Cross, Senior Citizens, CWA and RSL.

The area also provides for a range of recreational and sporting interests, including bowling, football, basketball, cricket, swimming and surfing, scuba diving, sailing, fishing, bush walking, golf, horse riding, mountain bike riding, and scenic drives along the coast and through rainforests.

A Visitor Information Centre was recently opened, which provides information about the local Koori culture and history, and history of forests and marine environments.

The Ecotourism Centre is funded by the community and the Department of Natural Resources and Environment, as ecotourism in the region has grown. The Centre provides a number of guided tours through the Otways for individuals as well as primary secondary and tertiary students. The town hosts a number of events and festivals throughout the year—the Art Show, Agricultural Show, and Apollo Bay Music Festival which attracts thousands of visitors.

6.2.4 Major industries

Tourism is the major industry in Apollo Bay and capitalises on its location as the Gateway to the Otways. Although tourism is the major industry, it tends to only offer part-time and seasonal employment. More recently there has been an increase in construction and development in the areas, boosting employment opportunities.

Although in the past many sawmills operated in the Apollo Bay district, today only one small sawmill operates.

6.2.5 Apollo Bay community workshop

A workshop was held on 19 April at the Apollo Bay Community Centre. The participants represented a range of community groups including the Colac Otway Shire, Friends of Otway Park, School Council, Apollo Bay Landcare Group, Southern Otway Landcare Network, Otway Planning Association, Senior Citizens, Otway Expeditions and Mountain Bike Tours, Chamber of Commerce, Apollo Bay Ambulance Service, Apollo Bay Visitor Centre, Local Bushwalking Group, Otway Ranges Walking Track Association, Otway Ranges Environment Network, Department of Natural Resources and Environment, Apollo Bay Boardriders Club, Wonerra Landcare Group, Otway Agroforestry Network and Otway Health and Community Services.

Participants were asked to mark on maps of the West Victoria RFA region significant and important sites, places of importance, recreational uses, and other features which they felt identified or depicted the region (see Figure 6.1).

| What have been som | e of the | significant | events in | ı your | community | in the last |
|--------------------|----------|-------------|-----------|--------|-----------|-------------|
| ten years? | | | | | | |

| Date | Event | Significance |
|---------------------|--|--|
| Since 1985 | Sealing of the Great Ocean Road increased tourism. | Enabled tourist buses to get through and meant large increases in tourism and accommodation. |
| Last decade | Increasing environmental awareness | Change of environmental management practices. |
| Last decade | Forest issues more publicised. | Increase press coverage of forestry issues in the press. |
| Last decade | Move to less traditional farming activities. | Increase in B&Bs, and agroforestry and hobby farms. |
| 1992 | Holding of the First Music Festival | This festival has grown to be a most successful annual event with thousands of visitors attending. |
| 1993 | Community dissent about the chlorination of the town's water supply. | Mobilised the community. |
| 1994 | Shire amalgamated | Increases tourism budget the establishment of linkages with regional and State tourist organisations, whereas formerly Apollo Bay had 'gone alone'. |
| 1994 | Road to Otway Lighthouse was bitumened | Changed the role of the lighthouse from an operational one to a tourist one. |
| 1995 | Establishment of Health and Community Centre | The new Multi Purpose Service amalgamated the Shire's Community Health Service (including the hospital and hostel facilities), Home and Community Care Program, Neighbour House Program |
| 1996 | Opening of Visitor Information Centre | Giving support to the tourism industry and increasing numbers of bush walkers |
| mid 1999s | 'Gross' enlargement of the Surf Club Rooms on the foreshore | Mobilised local opposition to the development. |
| 1997 | Increased housing development | Growth in population. Increased building activity and employment opportunities for younger people. |
| 1997 | HP landslip | Concerns about the environmental impacts of logging. |
| 1997 and onwards | | Perceived increased preparation of courts to dismiss protesters charges. |
| 1998 | Ecotourism Centre built. | |
| 1998 | Debate about the location of the waste treatment plant. | Mobilised the community. |
| 1998 | | Shire's appointment of an environment officer. |
| | 'Creative village' Scheme | Carved poles on foreshore have promoted the arts and artistic activities in the area. |
| 1998 | Underground power | Increased aesthetics. |
| Jan 1999 | Protest in Otway State Forest. | Logging stopped by protesters. |

Figure 6.1 Forest use and values identified by Apollo Bay workshop participants



The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community was the growth of tourism and the increasing awareness and sensitivity to environmental issues.

How did the community respond to the growth of tourism?

The participants believed that day visitors to Apollo Bay has increased by 153 per cent over the past years. This has led to an increase in B&Bs and the number of cafes and restaurants. Many small tourism operators have also opened offering diverse tourism opportunities. Tourist information, promotion and advertising about Apollo Bay is now widely distributed. While tourists tend not to stay overnight, this is changing with occupancy rates for accommodation up by 63 per cent.

There is still relatively little access to the forests and the natural resources although the potential of ecotourism is recognised, not only as an experience but also for job creation. Participants also felt that there was not enough funding to create paths and trails to protect the natural resources.

Many of the participants felt that tourism was a double-edged sword. The participants believe the community values the natural resources and want to see an expansion of responsible tourism which has low environmental impacts. They do not want to see tourism compromising the environmental values. There needs to be management regimes to ensure new tourist activities such as mountain bikes and 4WD do not degrade the forest environment, especially in catchment areas. It was reported that tourist operators complain about the visual impact of logging as tourists are driven around scenic roads. Participants believe there is potential risk of accidents with tourist and logging trucks, and a need for better maintenance of the road infrastructure which is being degraded by logging, such as Binns Road.

Equally they felt that some locals were concerned that the township would change and no longer be 'a lovely little village'. It was suggested that some of the elderly residents are concerned that their access to the township will be restricted by increased traffic and parking problems.

On balance, the participants felt that tourism has been positive because of the economic benefits for the area.

How did the community respond to the changing environmental context?

There was ongoing concern by some of the participants that the continued logging of the HP Track would cause further siltation problems for the township. Participants felt that recently there has been an increase in forest protests and lobbying, and in 1997 logging along Wild Dog Ridge was stopped by community protests. The 'Big Picnic' was held in October 1998, where protesters challenged the right to be in State forests without a permit.

They felt there had been a growth in the membership of environmental groups and that the community had become more political. They believe community has a high degree of environmental awareness and that there are strong sentiments about logging of native forest, especially in the Otway Ranges. The locals see the RFA as a significant issue for the township and the area.

Participants also believe that there is a greater political awareness of developments in the town, such as the waste water treatment plant, the chlorination of the water supply and the development of the surf club. However, the failure to influence decisions had led to feelings of being let down and disempowerment. The participants said they were distrustful of consultation processes, which they regard as token.

Landholders and farmers have faced hard times recently with a drought and water restrictions and low commodity prices. Increased water restrictions in catchment towns have been introduced.

Although interest in the use of forests has increased, the Natural Resources and Environment staff numbers have declined, with no fisheries officer. Participants felt that the remaining officers are unable to properly manage tourism in forests. As tourism increases, there is a growing demand by the public for access to forests.

How do you feel about Apollo Bay?

Most of the participants have very positive feelings about the community—'love it', 'a friendly place', 'a haven and retreat', and 'a great place to bring up children'. It was also seen as a diverse and tolerant town, with a strong sense of community as it often rallies to obtain services without little or no outside help. There was also a desire to retain the intimacy of the township and its festivals and celebrations, such as the Music Festival.



Apollo Bay community workshop

The natural features of the environment were an important asset to the community—a place where the forests meet the sea.

Some participants saw it as a community of retirees, although it was pointed out that school enrolments are increasing possibly reflecting the strengthening of the tourism sector and the availability of jobs to retain younger people. Unfortunately, there are few recreational facilities for young people.

Another strength of the community is that it is well served with health and community services which is attractive both young and older members of the community.

What are your visions for Apollo Bay?

Some participants wanted more tourism, especially tourist buses stopping overnight. Others were fearful that this would change Apollo Bay and wanted it to stay the same. It was recognised that more recreation facilities should be available for young people.

Environmental aspiration included the desire for Apollo Bay to be a sustainable town and community in terms of fishing, tourism and logging. Some wanted no logging of native forests, with water catchments and coastal streams protected. The logging on scenic roads and the rolling hills was also seen as a threat to tourism. Participants felt that any continued logging should only be for truly value added products. Others felt that royalties should increase so that agroforestry and hardwood plantations of Blue gums would be encouraged.

There was also a desire to protect the foreshore and existing reserves, and wanted to see the development of new recreational areas, such as the conversion of Skene's Creek School site to a recreational park. It was also hoped that the number of well-staffed heritage and marine parks would be increased to cater for ecotourism demands.

They wanted to see more tree planting both in rural and urban settings, including the revegetation of the gullies surrounding the town, better protection of existing vegetation as housing development occurs, beautification of industrial estates by requiring developers to vegetate estates, and the revegetation of the foreshore with indigenous vegetation. Good agriculture land should also be retained, and prevented from being converted into plantations.

6.3 Colac case study area

Colac is situated along the Princes Highway 150 km south west of Melbourne, and is on the southern shores of Lake Colac. It is the largest commercial and administrative centre in the Colac Otway municipality, and a major regional centre for the surrounding agricultural and timber producing areas. The lake system of Colac covers 259 square kilometres with thirty lakes and volcanic hills.

Lake Colac is the largest fresh water lake in Victoria offering rowing, yachting, boating, fishing and water skiing. In contrast, lakes such as Lake Corangamite and others in the district are exceedingly saline.

6.3.1 History

The district was Coladjin territory before the arrival of the white settlers. In 1837 a group of Tasmanian settlers established sheep stations around Lake Colac, attracted by the numerous lakes, the pure drinking water of Lake Colac and rich volcanic soils.

Slowly the district grew as subdivisions occurred in the township and also on the outskirts of Colac. Early industries included a brewery, rabbit cannery, sawmilling, grazing and Cotwold and Polwarth sheep. A cordial factory was established in 1870, producing soft drinks until the 1970s when it was sold to a Geelong company.

The connection of Colac to the Geelong—Winchelsea railway line in 1877 gave a further boost to the township and by turn of the century Colac was a thriving town. It had banks, a court house, library, churches of all denominations, a range of schools and many recreational and sporting clubs. By the 1920s electricity and telephone services had arrived, and in 1934 the Colac Community Hospital opened, the first of its type in the State. The Colac sewerage treatment works were built in 1928 whereas formerly treated effluent had been discharged into Lake Colac.

The Colac Dairying Company, established in 1892, was the major industry in the district. The co-operative of local dairy farmers manufactured butter, cheese, lactose and casein. In 1987 when the Bonlac Food Ltd was formed, the company was restructured and the Colac operations were moved to Cobden. However, the original Corooke factory still provides dairy products to Regal Cream Products in Colac.

The prosperity of the Colac district from its earliest days through to 1980s was due to its diverse industrial base and productive agriculture sector. The rich soil in the area was important for agricultural crops such as potatoes, peas and onions.

Historically, forestry has played a significant role with the Otway forest being the basis of the timber industry since the 1850s, although the Black Thursday bushfire on 6 February 1851 devastated the Otway Forest. It was estimated that there were thirty mills operating in the 1960s.

6.3.2 Population characteristics

The township of Colac had a population of 9793 people and 3883 households in 1996. Twenty-three per cent of the population was under 15 years old and 23 per cent was 60 years and older. Ninety-five per cent were Australian born, and 68 per cent had lived in Colac for at least five years.

There were 4285 dwellings in Colac in 1996, and 88 per cent of these were detached houses.

Retail (19.2 per cent), manufacturing (18.7 per cent), health and community services (14.1 per cent) and education (6.2 per cent) sectors are the major employers. The unemployment rate is relatively low at 8 per cent, and the median household income is \$469 per week.

6.3.3 Community infrastructure

The township is a service centre for the district and provides a wide range of retail, commercial and administrative services, as well as the offices of the Colac Otway Shire. Colac has offices of major State government agencies such as the CFA, Department of Natural Resources and Environment, Police, Medicare, Powercor, Centrelink and Telstra.

As a service centre Colac has agricultural suppliers, transport and carriers, farm machinery suppliers, veterinary clinic and supplies, and engineering services.

The commercial centre has a good assortment of shops, including two department stores, a large supermarket, five banking institutions, fast food outlets, newsagencies, bakery, chemist and a Post Office.

Education facilities range from preschool through to TAFE facilities. There are three primary schools, a secondary school, three Catholic schools, two colleges, a special development school and a neighbourhood house. The Colac Adult and Community Education centre provides community and further education in vocational and career

development as well as health, music, art and provides employment placement service. The Gordon Institute provides off-campus courses through the Colac Otway Education Centre.

The Colac Community Health Services provides acute and allied care, diagnostic services, and family and community support through a number of locations in Colac. The senior Citizens Village provides respite care. As well, there are private medical and dental clinics.

Colac has a wide range of sports clubs including athletics, baseball, basketball, bowls, callisthenics, ten pin bowling, cricket, croquet, football, rifle club, hockey, netball, softball, squash, pigeon racing, rowing, and sailing.

Community groups include Apex, CWA, Red Cross, Colac Players, Senior Citizens, Scouts and Guides and the RSL. Fourteen different religious denominations are represented in and around Colac.

This year's *Go Colac, Go Country* Festival, with its Ferret Cup and Corporate marquees (the alternative Melbourne Cup), attracted between 1000–1500 guests. A variety of visitor accommodation—motel, caravan parks and B&Bs—is available in Colac.

Currently a 'Revitalisation Project' is being carried out to restore the foreshore of Lake Colac in front of the Botanical Gardens. This Project has been the joint effort of the community and local business and the Council. The Colac Botanical Gardens, listed on the Australian Heritage Register, were established in 1868 and were remodelled after a report to Council by William Guilfoyle, the landscape designer of Melbourne's Botanical Gardens.



Botanical Gardens, Colac

6.3.4 Major industries

The main industries for the Shire are primary production. Timber and dairying are the two key industries for the Colac District. There are six sawmills in the area, two softwood and four hardwood mills.

As Colac is the main service centre to the Shire it has a large public service sector. The Otway Shire Council is also promoting tourism and is part of the Volcanic Tourism Development Project, which is establishing a tourist drive from Colac to the South Australian border.

6.3.5 Colac workshop

A workshop was held at the Colac Otway Civic Hall on 20 April. The workshop was attended by the local residents of Colac and represented a broad range of interests;

Otway Agroforestry Network, Colac Community Development Association, Department of Natural Resources and Environment, Colac Otway Shire, Colac and Otway Gem Club, Western Victorian Axeman's Association, Colac Otway Tourism, Field Naturalists Group, Youth Department of Colac Community Health Service, Otway Forest Industries Information Group, Colac Business and Retailers Association, Parks Victoria, Forest Protection Society, Colac Public Radio, Victorian Greens, and Calco Timber P/L.

Participants were asked to mark on maps of the Western Victoria RFA region significant and important sites, places of importance, recreational uses, and other features which they felt identified or depicted the region (see Figure 6.2).

What have been some of the significant events in your community in the last ten years?

| Date | Event | Significance |
|---------------------|---|---|
| Ongoing | Loss of young people from community | Leaving for education and employment opportunities |
| 1987 | | Establishment of visitor centre |
| 1990–onwards | Downsizing of smaller communities outside Colac. | Loss of population has meant a reduced demand for services, loss of jobs, school closures in outlying areas. |
| | | The business centre role of Colac. |
| | | More depressed community spirit. |
| 1990 | Different housing prices between Colac and Melbourne | Has attracted older home buyers to Colac. Often younger newcomers to Colac choose to rent, as the prices of property in Melbourne will appreciate more than in Colac. |
| 1990s | | Establishment of festivals such as Go Colac, Go Colac. Otway Harvest, Country Music. |
| | Dairy industry consolidating. Consolidation of Regal Cream and Bulla | Strengthening of economic base in Colac. |
| | More value adding in the softwood and hardwood timber industry. | Retains more profit in Colac. |
| | Seven day/24 hours trading by large corporations. | Increased numbers in town on weekends, although it has increase pressure on local traders to increase hours of operation. |
| 1992 | Growing interest in the health of the Lakes and Lake Colac | More interest in cleaning up the Lakes. Increase in Landcare. |
| 1993 | Downturn of economy | Impacts on retailing and trading in township. |
| 1993–94– ongoing | Rationalisation of Government agencies | Loss of Government services resulted in a loss of staff. |
| 1994 | Amalgamation of Local Government | Downsizing of jobs and employment |
| | | Improved planning |
| 1994 | Arrival of poker machines | It has been calculated that this costs the community \$21 000 per day in lost revenue. |
| 1995 | Restructuring of Health Services | Amalgamation of Age care and community services has meant there is better access to health services across the board, e.g. skilled after care. |
| 1995- ongoing | New emphasis on tourism | Development of tourist strategy and new tourist initiatives. |
| 1995 | | Capitalising on Colac being on the route to the Grampians, and its proximity to the Great Ocean Road and the Port Campbell. |
| 1996 | Changes in rail freight and closures of lines | Increased heavy vehicle traffic through town. |
| 1997 | Closure of the tip | The tip's proximity to lake Colac has been a source of concern about its impact on water quality. |
| 1997 | Council purchased local abattoir that was going to close. | This has saved 150 jobs. It is intended to find a suitable person or company so as to retain the abattoir in the city. |
| | Arrival of fast food outlets | Created some employment for young people. |
| 1998 | Rate payers and residents Associations | Community has rallied twice to retain passenger service. |



The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community was industry reform and the growing diversification of community.

How did the community respond to the restructuring of industries and agencies.

The downsizing of government agencies has meant less and lower salaries in the township, significantly reducing disposable income. A number of traders have closed on the eastern end of the main shopping strip. A concern expressed by retailers is the perception that there is an increase in bankruptcy.

The arrival of poker machines is having a large impact on the disposable income in the township, with an estimated \$21 000 lost per day, much of which goes out of town. This gambling is not only having an economic effect on local businesses, it has also led to increased family and relationship stresses with an increased demand for welfare services. Participants also felt that the poker machines were affecting the social interactions of the Colac community.

There was concern that the expansion of Safeway (and the inclusion of a service station) was also have a negative impact on small local businesses in the township, such as butcher, bakery and grocer because the large franchise is cheaper and offers one-stop service.

The restructuring of the dairy industry has meant that farmers either expand or leave the industry. Small farmers have been brought out by larger companies looking to increase land holdings.

Despite these negatives the participants felt that Colac was luckier than outer townships because it had an expanding industries in timber, tourism and dairying. Participants felt that tourism was expanding because of the promotion of Colac and its proximity to the Great Ocean Road. The Council has become a member of the Geelong Otway Tourism Network, and has benefited from regional marketing strategies. Participants believe tourism is becoming bigger in Colac, and has already spawned many cottage industries including B&Bs, Arts and Crafts, and Galleries.

Participants believe that over the past decade there has been considerable change in Colac. They felt that many of the changes had been force upon them, but they had not been given the skills to cope. Young people are particularly affected because of the changing employment situation—less employment in traditional jobs. The Colac Adult Education Centre has responded by providing more courses with a vocational emphasis instead of personal development. The difficulty faced by young people is that there are often no employment opportunities after completion of the training, as employment in Colac is rather stagnant. On the other hand, local businesses have found it difficult to attract young professionals because the salaries are lower. This is seen by prospective employees as a major disadvantage, although the participants pointed out that cost of living in Colac is lower.

How did the community respond to the increased diversification?

The changing economic circumstances have forced industries to adapt and diversify if they want to remain in Colac. Industries are continually looking for new markets and new products. The tourism industry now promotes the Otways, as well as a range of different tourism products including the volcanic plains, waterfall trails, adventure tours and ecotourism. The local building industry is expanding into the construction of larger tourism projects on the Great Ocean Road, the manufacturing of kit homes for export to Asia, and the local mason has developed new markets with stone joinery for kitchens. Regal Dairy now has a stronger south-east Asian focus, making specific dairy products for these markets. New industries have also opened in Colac such as cut-flower, local transport firms, and moves from sheep to pork production. The increase in diversification and value adding has been predominantly driven by market forces and the need to retain more of the profit margin in Colac.

The timber industry in the area has also responded by consolidating and value-adding. It was also commented that there has been a huge increase in woodchipping utilisation, that would otherwise have been left on the forest floor. The use of the floor residues assisted with the preparation of coups for further planting. It was felt that the poor community perceptions of wood chipping sometimes had a counter-productive effect because the community did not understand the complex issues. An example was cited where a media campaign stopped local chips being used for paper production in South Australia. As a result many local jobs were lost, while the South Australian firm is now importing chips.

Participants felt that Landcare has also had an affect on community awareness and the need for sustainable land management practices and the management of timber resources. This has seen both a rise in agroforestry on private land as well as better management of coups on public land.

How do you feel about your community?

The participants felt comfortable, optimistic, and hopeful. They saw the community as friendly, supportive and participants felt proud to live in Colac. They thought the community was a little conservative but becoming more culturally mature. They also saw a growing environmental awareness throughout the community.

Some participants felt it was a time of insecurity for the town, and that their community was being challenged. Participants believed that they had to make changes in order to survive. Despite this they saw themselves as comparatively lucky in contrast to other communities because they had a number of expanding industries.

There were a number of major constraints relating to be the limited opportunities for youth, their limited employment prospects, and their restricted access to transport and recreational facilities.

What are your visions for Colac?

One vision was to build on the natural assets of the district while still retaining the environmental qualities of the area—the pure air and water. Participants discussed the

role of the district within the Otway Catchment and its importance for both the supply and the quality of water in Geelong. It was felt that there was a greater consciousness of the need to use water in a sustainable way, especially as the last two years have been very dry.

Some participants sought to have greater security and access to timber resources so as to expand into new products and new markets. Others felt that the RFA negotiations provided an opportunity to consider extensions to the Otway National Park with increase tourism. The Stoney Rises on the Volcanic Plains were seen to have a high tourism potential, and participants want to see them included in a National Park or Reserve. There was also a desire to see more plantations.

Some participants wanted to see an improvement in mobile telecommunications and access to the Internet. This would provide a substantial impetus to the community not only for young people but would also attract new businesses to the district.

Participant felt that the strategic location of Colac as a transport hub on the Western Highway could be capitalised on. It was also suggested that the line to Mount Gambier be re-opened so as to decrease the number of heavy vehicles travelling through the town.

The expansion of theatre, music and the visual arts within the community is also seen as another opportunity. A Community Arts Centre is planned for later this year. There is also an opportunity to encourage talented artists and musicians in the region.

6.4 Ballarat case study area

The City of Ballarat is one of the largest inland settlements in Australia. It is located on the Western Highway 111 km to the north west of Melbourne, and sits at the top of the Barwon, the Hopkins and the Loddon River Catchments

Ballarat is strategically located as a transportation hub in Victoria's road and rail network, and also has an airport.

6.4.1 History

The Kulin tribe whose territory extended from the Werribee River to Learmonth initially inhabited the Ballarat district. When white settlers arrived in the district, there nomadic way of life was shattered, and the gold rushes finally eliminated the native population. King Billy (William Wilson), reputed to be the last Aboriginal to survive, died in 1896.

After the settlement of Melbourne, there was a continuing demand for grazing land. Settlers set up stations in the Ballarat district as it was ideal for the grazing of sheep and cattle. In 1851, the discovery of gold in Clunes started a small rush, but it was not until gold was discovered on a station named *Ballarat* that the gold rush began. In a few weeks 2500 men were on the field and hundreds more were arriving daily. In two months, 10 000 men were working the fields, and an estimated 10 000 pounds was earned.

Surface diggings on the hills were soon depleted, and most of the population moved onto the new rushes at Bendigo and Mt Alexander, although a small number of diggers remained to work the flats. News of the gold discovery in Australia attracted miners from Cornwall, Wales and Scotland. With their mining experience they constructed shafts along the flats, and a new rush began with the discovery of rich deep leads. The second rush made men immensely wealthy. Between 1851 to 1856 it was estimated that 2.8 million ounces was mined from the Ballarat area.

The infamous Eureka Stockade occurred on 3 December 1854 when the miners rebelled against the mining licence fees imposed by the Government. Twenty two diggers and six soldiers were killed on the site. However, the stockade resulted in the Gold Licence being abolished in 1855.

In Ballart, timber production has been historically important, commencing in 1841 it was initially used to build sheep runs. Later, timber was produced for the construction of mine shafts, and as the city grew it was used for firewood and the construction of the city streets.

The commercial and supply centre for the gold field was located on Main Rd with pubs, stores, theatres, hotels, eating houses, and a stage coach depot. Later, the commercial centre moved into Sturt Street, and Main Street became 'China Town'.

During the 1870s Ballarat was one of the most affluent cities in the world with 400 000 inhabitants, tens of churches, hundreds of hotels, reticulated water and gas supply, and many of the magnificent public buildings which remain today. A number of parks were also constructed including Lake Wendouree. The early miners amassed great wealth, built large houses, and a few accumulated excellent art collections, which are today found in the Ballarat Art Gallery and the Botanical Gardens.

After the mines closed in 1918, and the plants were pulled down for their scrap iron and timber, other industries became prominent. The proximity of Ballarat from the Geelong seaport was one of the main reasons Ballarat survived as a manufacturing centre. The historic Phoenix Foundry build over 357 locomotives for the Victorian railways, and Hugh McKay commenced building harvesting machines in Ballarat.

In 1971, Ballarat was described as having a large and diverse manufacturing sector with more than 350 factories employing approximately 8000 men and women.

6.4.2 Population characteristics

The 1996 census indicated that Ballarat had a population of 64 831 persons living in 24 325 households. After a zero population growth between the 1991–96 period, the City has seen a 0.7% growth between 1996–97. The age structure is relative young with 39 per cent being under 24 years, and a median age of 32 years. In 1996, only 59 per cent of the Ballarat residents had lived there for more than five years.

A high percentage of the population was Australian born (93 per cent).

In 1996 there were 26 521 dwellings in Ballarat of which 44 per cent of these were detached houses. Although 65 per cent of the population either own or are purchasing their homes, 26 per cent was renting accommodation reflecting the large number of students attending the tertiary institutions.

Ballarat had a labour force of 27 893 in 1996, and the unemployment rate was 12.7 per cent. The key employment sectors are retail trade (17.9 per cent), manufacturing (17.2 per cent), health and community services (14.4 per cent) and education (9.0 per cent). The average household weekly income is \$500.

6.4.3 Community infrastructure

There are three hospitals located within Ballarat; the Queen Elizabeth Hospital which caters for the elderly and mentally ill patients; the Ballarat Base (public) Hospital; and the St John of God (private) Hospital. The Cooinda Centre, opened in 1998, accommodates the Ballarat Community Health Centre, Wendouree Senior Citizens, Wellcoming Women's Health Service and the City of Ballarat Maternal and Child Health Service.

The City has a full range of education institutes including public, private and boarding schools. It also has two universities; the University of Ballarat and the Australian Catholic College. A large number of sporting and recreational facilities are available, including two aquatic centres.

Ballarat and its surrounds offer a variety of accommodation from luxury B&Bs to family motels and caravan parks. There are also many fine restaurants in Ballarat, some set in beautiful historic buildings. The restored Her Majesty's Theatre, Australia's oldest original theatre, hosted 73 performances and events which attracted more than 60 000 people in 1998.



Her Majesty's Theatre, Ballarat

The Eureka Stockade Centre is a major tourist

attraction depicting and interpreting the Eureka uprising. At night-time the sound-andlight show recreates the Eureka Rebellion. Whilst at Sovereign Hill visitors can dress in period costume, pan for gold and experience life on the gold fields.

The centennial Begonia Festival was recently held in the historical Botanical Gardens in the newly constructed Robert Clark Conservatory. Other tourist attractions include the Great Southern Woolshed Tours, the Goldfield Touring Route of old mining towns, the food and winery tours in the district.

6.4.4 Major industries

Ballarat is a major regional service centre for the City's population and also to an estimated regional population of 144 000 people from the surrounding agriculture areas. It is the administrative centre for banking and finance, and provides heath, education and government services for the region.

Ballarat, currently has around 190 000 m2 of retail floor space, which Council believes could be expanded by an additional 33 000 m2 in the next 12 years. Ballarat's industrial areas are centred around Wendouree and Dalacombe.

Ballarat is located close to important farming areas in Western Victorian and a number of industries which process farm products have located there. The multimillion dollar Japanese-owned Hakubaku Noodle factory, located in the Wendouree Industrial Park, processes locally sourced buckwheat for international markets.

The Greenhill Enterprise Centre at the University of Ballarat has been established to support and 'incubate' new local business initiatives.

There is a very strong tourist sector with an estimated six per cent of the Victorian tourism market visiting Sovereign Hill. The establishment of a Ballarat Historical Precinct and the newly opened Eureka Centre are further opportunities.

6.4.5 Ballarat community workshop

A workshop was held on 21 April in the Ballarat BRACE Offices. Participants represented a range of community groups including the Forest Protection Society, City of Ballarat, Central Victorian Forestry, Central Highlands Water, Eureka Timber Company, Ballarat Bushwalking and Outdoor Club, Gold mining and exploration, Ballarat Field Naturalists, forest contractors and apiarists.

Participants were asked to mark on maps of the Western Victoria RFA region significant and important sites, places of importance, recreational uses, and other features which they felt identified or depicted the region (see Figure 6.3).


What have been some of the significant events in your community in the last ten years?

| Date | Event | Significance |
|--------------|---|--|
| 1990s | Growing importance of manufacturing | Increase of 15 to 24 per cent of employment share. |
| 1990s | Industry volatility. Closure of Timken Bearings Factory, Amcast Foundry Company. | Loss of jobs |
| 1990s | Rationalisation of Potato growing—from small to large farms. | Reduction in net income |
| 1990s | More wineries, Blue gum forestry, raised bed cropping, and canola growing | Greater economic diversity |
| 1990s | Growth of Tourism | Job opportunities |
| 1990s | Increased number of community festivals | Ballarat bush walking tour (last 9 years), <i>Springfest</i> (4 years), <i>Swapmeet, Autumn Day</i> . These have vitalised the community. |
| 1990s | Growth of 4WDs and bikes | |
| 1991 | Construction of the freeway | Effects on the vegetation around Yarrowee River and the wetlands |
| 1992–97 | High rates of youth unemployment | |
| | | |
| 1994 | Amalgamation of Local government | |
| | Land Conservation Council did not come back | |
| | Recession | |
| | Decreasing returns from the forests | |
| 1994 | Increase interest in gold | Increased investment by general public. Opening of mines. |
| 1995 | Opening of Japanese Noodles Factory. | Sourcing local buckwheat. Originally was for export, but is slowly entering domestic sector |
| 1995–99 | District bushfires—Enfield, Creswick, Trentham | Impacts on forests, communities, and loss of houses and livelihood. |
| 1996 | North Ballarat Football club joined the VFL | Increase community pride. |
| 1996 | Implementation of Midlands Forest Management Plan. | Significant decrease if wood supply. CSR in Bacchus Marsh closed. |
| mid 1990s | Air pollution from overspraying resulted in vegetation damage. | Environmental damage and increase in community awareness of environmental issues. |
| 1997 | Oztrack Infotech Centre established | Increased IT facilities in Ballarat. |
| 1997 | The College of Ballarat and TAFE were amalgamated to form the University of Ballarat. | Better tertiary facilities for district population. |
| | The Australian Catholic University commenced. | |
| | Arrival of poker machines | Large social effects. |
| | Increased use of large chain stores. | Loss of corner stores. As small retail stores cannot compete with large companies. |
| 1994-current | Driest rainfall period | |

The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community was coping with environmental disasters and threats; and coping with social and environmental changes.

How did the community respond to the environmental disasters?

A recent local bushfire resulted in the loss of five CFA volunteers from the Geelong district. This tragedy not only impacted on the families and community of the volunteers, but also saw the Ballarat community rally to support the bereaved families and wider community. Participants felt that the increased awareness of fire has led to extra fire trucks, improved fire prevention measure such as maintenance and the cleaning out of local dams. However, some questioned whether this was a short-term response to the recent disaster.

In another local incident, the overspraying of a crop resulted in widespread damage to vegetation. While the incident has now been dealt with, it has had the long-term effect

on insurance for spraying works; either insurance is no longer available or the premiums have increased.

Revegetation works along the Yarrowee River have been conducted as a trade-off for land used for the freeway. An environmental network of tracks, trails, and interpretation signs have been put in place which has increased community awareness. Revegetation is being assisted by schools, that have their own plantings, industry and service club contributions. The Catchment Management Authority levy also contributes towards revegetation programs.

Participants believed that the environmental practices of forest-user industries have improved through greater compliance with codes such as the Codes of Forest Practices and Code of Beekeeping. These Codes have resulted from increased community awareness and greater community scrutiny of the use of public resources.

How did the community respond to the changing social and economic context?

They felt that Ballarat is a fairly conservative place and residents are resistant to change although are less so in the last five years.

Welfare agencies are struggling to provide food and clothing for disadvantaged sectors of the community, affected by the advent of poker machines and job losses in Ballarat. Participants believed that youth unemployment in Ballarat is high, and linked to the high suicide rate, increase in drug use and drug-associated crime. Privatisation of government services and the increased use of contracted labour has also meant that disadvantaged people are no longer finding long-term employment with local government and other large agencies.

The participants felt that there is less security in their personal lives, and increasing social divisions between 'the haves' and 'the have-nots'. Even those who are employed seem to be working harder and longer hours which is diminishing their quality of lifestyle. The participants felt that the community was not coping with these stresses.

On a more positive note, they felt that there is a greater diversity of business enterprises, much of which has being promoted by the Ballarat Council activities. Tourism, capitalising on the heritage of the City, is increasing through the promotion of festivals and the environment. The City is being proactive, as illustrated by it establishing a tent city for 'Crow' supporters from Adelaide who attended the football grand finals.

How do you feel about Ballarat?

The participants believed that Ballarat had a number of advantages over other cities, such as the lifestyle, clean air, affordable housing, little traffic, quality private schools, good sporting facilities, flat terrain for bike riding, proximity to bushlands, and scenic areas such as Lake Wendouree. It also has the advantage of being in close proximity to Melbourne and an international airport. Ballarat is also big enough to have all facilities and services yet small enough to get around. The community was considered

by the participants as conservative, but friendly. The towns is small enough to bump into friends who have time to chat.

The participants also valued the distinct seasons, as well as the rich historical background of Ballarat.

What are your visions for Ballarat?

Some of the participants did not want the population to increase, which might affect the current quality of life. Others felt a growth in population might generate more industry opportunities in the town, and help solve youth unemployment. There was some disagreement about whether there was a surplus capacity of the infrastructure to cater for an increased population or whether the city should limit its expansion.

Participant described a proposal to create a fast commuter train service between Melbourne and Ballarat. This proposal would retain people in Ballarat whilst also enabling people to commute daily to jobs in Melbourne. It would maintain a balance between attracting people to the area, with spreading of costs and lower rates, and the generation of greater demand and more jobs whilst retaining a quality lifestyle. The cost of maintaining a vibrant city may well be that the population needs to increase.

Participants had a vision to see Ballarat become a centre for commerce within the region and Victoria. Participants also wanted to create a more diverse economic base for the City. It was felt that Ballarat should seek to retain all existing jobs, and not trade jobs in one industry for jobs in another—the participants wanted win-win situations.

A draft bike strategy has been developed with corporate sponsorship, and some participant's wanted the city to be 'bike friendly' to reduce air pollution.

Participants also want to see Ballarat for VFL premiers.

6.5 Daylesford case study area

Daylesford is located about 108 km to the north west of Melbourne. It is the largest settlement in the Hepburn Shire and is the local government headquarters.

Although the Hepburn Shire is depended on primary production from agriculture, forestry and mining, tourism is the most important industry in Daylesford. It is very picturesque area, and is part of Victoria's Central Goldfields Tourist region and the Pyrenees wine region.



Daylesford Hotel

6.5.1 History

The Djadja Wurrung tribe originally covered the Central Highland region, including Daylesford. In 1851, gold was first discovered at Wombat Flat, and by the mid 1850s thousands of people worked the gold fields. The Daylesford goldfields, known as Wombat Flat Diggings, were quickly exhausted and diggers moved onto the Spring Creek (later to become Hepburn Springs). Although many people had moved on, the shantytown remained and soon developed into a township with buildings, stores, music halls and hotels. The first hospital was established 1862.

The early community was a medley of Europeans, Chinese, English, Cornish, Welsh and Irish miners. The Chinese created an extensive market garden at the south end of Perrins Street, which has since been covered by Lake Daylesford. Italian Hill on the East Side of Daylesford derives it name from the many Italian Swiss miners.

The surrounding forest became an important resource for fuel and mine props. Many timber mills were established around Daylesford, and large tracts of the Wombat Forest between Daylesford and Ballarat were cleared and used for grazing.

After the gold rush, the government opened up land for agriculture and production of dairy goods and potatoes. Although there were markets in the mining communities access to these markets was limited by lack of transport. In 1862, Cobb and Co coaches provided a connecting service from Daylesford through Glenlyon to Malmesbury, but this was not sufficient to service the needs of the growing community.

The local community lobbied for a rail line and finally the line was opened in 1881 and operated until 1978. The railway was used to transport timber and firewood to mines in Allendale and Maryborough.

It was during the gold rush that many of the mineral springs were discovered. The value of natural springs was appreciated by many of the European miners who came to the area. The area became very popular in the 1880s as the therapeutic value of the springs was promoted. A large number of substantial guesthouses were built during this time, and the completion of the railway made it a popular tourist destination. The mineral water bottling works commenced in late 1880s.

Tourism gradually declined and by the 1960s many of the springs were choked with undergrowth and blackberries. There was a significant decrease in the number of guesthouses, hotels and schools. By the mid 1980s, agriculture, timber and small businesses serving the rural hinterland continued to be the backbone of Daylesford.

6.5.2 Population characteristics

In 1996, Daylesford had a population of 3278 people and 1337 households. Only 20 per cent of the population was under 15 years whilst 24 per cent were 60 years and over. There were 108 women over 80 years living in the township. It is an aging population because it attracts retirees to its health springs, hospital and health services.

The township has a relatively lower number of Australian born residents than the other case study towns (83 per cent). Eleven per cent of residents came from European descent. Sixty-three per cent of the residents had lived there for more than five years.

Daylesford had 1899 dwellings and 91.5 per cent of these were detached houses. There was a high unoccupancy rate of dwellings on the night of the Census that many of the dwellings were holiday houses and weekenders.

Daylesford had a workforce of 1291 people in 1996, and the main industries were manufacturing (16.3 per cent), tourism through accommodation, cafes and restaurants (15.0 per cent), retail trade (13.5 per cent), and the health and community service sectors (12.1 per cent). The unemployment rate was high (13.6 per cent), and the median weekly household income was low at \$398. This may also reflect the large number of people on fixed incomes such as age pensions.

6.5.3 Community infrastructure

The revival of the mineral springs around Daylesford and Hepburn Springs as a tourist attraction in the last ten years has spawned a number of ancillary facilities such as restaurants, accommodation, antique stores and conference facilities.

The ambience of the area has also changed with the influx of people seeking an alternative lifestyle, including resident artists. There has been an increase in stores selling natural homoeopathic and aromatherapy treatments, tarot readings, massage, bookshops and galleries and craft shops. The Alpha Hall, an old silent movie house, is back showing classic movies on Saturday. The Palais Theatre has been reopened, and the Convent has been transformed into a Gallery.

Tourist attractions include the Sunday Market at the Daylesford Railway Station and the Tourist Train to Musk; the Daylesford Museum; the Wombat Hill Botanical Gardens and lookout tower. There are numerous walking trails; the Tipperary Walking Trail and the trail from the Cascades to Sutton Springs or Twin Bridges.

Daylesford also has a number of festivals including the Daylesford New Years Gala, Begonia Display at the Wombat Hill Garden, Swiss Italian Festa, Gay and Lesbian Festival, Daylesford/Hepburn Springs Mid-Winter Festivities and the Daylesford Highland Gathering.

Daylesford also provides a service role to the outlying community. It contains the Shire offices, the local library, an information centre, and has three banks and an automatic teller. There are state and catholic primary and secondary schools as well as a neighbourhood house and learning centre. Apart from the restaurants and cafes the townships offers a full range of businesses and stores. The Department of Natural Resources and Environment and the Central Highlands Water Board also have offices in the town.

Daylesford has a hospital which provides acute, emergency services, a nursing home and hostel care. It also contains a Community Health Centre which provides an extensive range of services such as podiatry, dental health. There are also private medical and dental surgeries.

There are seven churches in the township. For sporting activities there is a Bowling Club, a golf course and a Soccer Club. Community recreational and cultural groups include the Historical Society and Museum, Municipal Band, Highland Dancing, Red Cross, and RSL.

6.5.4 Major industries

The Hepburn Shire is primarily dependent on cropping, forestry and grazing. Daytex Textile clothing manufacturers is a key employer in the district. Three sawmills operate in Daylesford, and the Shire is encouraging the establishment of timber plantations.

The Daylesford/Hepburn Springs area is one of the major settlements in the Shire and is seen as an area where further residential, commercial retail and industrial development will be promoted. It is also seen one of the major tourism centres. It has a large art community with painters, sculptors, silversmiths, glass blowers, potters, ceramics, and furniture making.

According to the Spa Country Chamber of Commerce and Tourism it was estimated in June 1996 that tourists spent at least \$37.5 million a year in the Daylesford/Hepburn Springs area. Tourism effects have also rolled on to construction in the are where between 1992–96 there was approximately \$40 million spent on construction.

6.5.5 Daylesford workshop

The Daylesford Workshop was held on the 22 April at the NRE Offices. The participants who attended represented the Western Victoria Forest Protection Network, Hepburn Shire Council, Forest Protection Society, Daylesford Secondary School, Daylesford Skate Park, Hepburn Action Group, Wombat Forest



Society, Ballarat Environment Network, Daylesford Bushwalking Group, Prospectors and Miners Association, Daylesford Sawmill, Spa Country Chamber of Commerce, Victorian Mineral Water Committee, and a logging contractor.

Participants were asked to mark on maps of the Western Victoria RFA region significant and important sites, places of importance, recreational uses, and other features which they felt identified or depicted the region (see Figure 6.4).



| Date | Event | Significance |
|---------|--|---|
| 1990s | Significant increase in tourism | Expansion of new businesses, especially restaurants, galleries. |
| | | Increase in weekend population. |
| | | Increase in festivals. |
| | | Expansion of construction |
| | | Refurbishment of shops. |
| | | Parking problems in the township on weekends. |
| | | Privatisation of mineral springs. |
| | Lake House development | Five star accommodation. |
| | Boathouse | |
| | Festivals | On a regular basis |
| | Increase in affluent tourists | Increase cost of living for locals. Increased cost of food. |
| | Closure of primary schools in outlying areas, e.g Mt Prospect, Musk, Glenlyon, Kooingee, Dauton, | Increased reliance on Daylesford Primary School by outlying areas. |
| | Influx of people seeking an alternative lifestyle. | Introduction of yoga, theosophical values, natural therapies. |
| | | Religious diversity. |
| | | |
| | Population has increased | Increase in numbers on weekends. |
| | | Primary and secondary school populations have stayed the same. |
| | Changes in the housing sector | An increase in B&Bs (an estimated 3000 beds). The conversion of some housing to B&Bs has resulted in a loss of low cost rental housing. Some people have moved to Ballarat for cheaper accommodation. |
| | Lack of vocational opportunities for youth in township. | Youth leave town for career opportunities. |
| | Limited recreational activities for youth. | |
| 1992 | Refurbishment of 'The Convent' and the Spa at Hepburn Springs | Major tourist attraction. Was a major catalyst for the growth in tourism. |
| 1994 | Amalgamation of the municipality. | Daylesford remained the administrative centre of the Shire. |
| 1995–98 | Amalgamation of the health service | |
| 1997 | Domestic water Supply | Water quality has deteriorated. A new water treatment system is being constructed. |

What have been some of the significant events in your community in the last ten years?

The participants were asked to choose an event to consider in greater detail. The change identified as having a major impact on their community was growth of tourism and its impact on the local community.

How did the community respond to the growth of tourism?

The participants described a complex community structure. There are 'locals' who have lived in the district for many years, dependent on local employers such as the agriculture sector, the sawmills, the textile factory, the hospital and government agencies. Then there are the 'newcomers' who have arrived in the last ten years seeking an alternative lifestyle, some of whom have opened shops, studios and restaurants. A third group are the 'professionals' and contractors who work in the township but live outside the district, and finally the 'tourists' that come during the weekend.

The participants perceived a difference in values between the 'newcomers' and the 'locals'. The newcomers, attracted by the tranquillity and natural environment of the township, tend to be more informed and vocal on planning and environmental issues,

such as water quality and forestry. The newcomers felt the 'essence' of Daylesford that drew them to the town is being changed. The participants believed that the locals are more conservative, and think that the newcomers tend to overreact to issues.

The participants had mixed views about the impact of tourism. Participants recognised that tourism had brought considerable benefits to the township. Construction and development has injected \$14–16 million per annum, and trade people find it hard to meet the demand. Increased tourism also brings in income for local businesses and generates employment opportunities. As a result, Daylesford is a vibrant and growing town in contrast to the many other small regional centres in Victoria.

However, there was some ambivalence about the growth of tourism. It has increased the cost of living in the township, so that some people now go to other town to shop. Some felt that a disproportionate amount of local money and rates was being directed to infrastructure and services relating to tourism rather than being spent on the locals. Participants also believed tourists were creating extra costs for the community as the Council now spends more money on removing rubbish in the township and in the reserves, caused by the increase in tourists. Participants wanted to see Council spend money on the establishment of safe playgrounds for local children, which the town currently lacks.. Some also felt that the profits from tourism were going to investors outside the township. Ultimately, the participants want to see a greater balance between the needs of tourists and the needs of the locals.

Although the growth of tourism has generated part time jobs for younger people, it has not provided them with long-term career paths. The participants perceived a lack of vocational opportunities for youth in the township, so that young people leave town for further training or employment. Even though Ballarat has two universities and is only 45 km from Daylesford young people often go to Melbourne because there is a wider range of opportunities.

They felt that the community was not wealthy, as there are a high number of welfare recipients in the town, and a high percentage of pupils at the secondary school come from low-income families.

The secondary school serves a large rural catchment around Daylesford, attracts quality staff and has a good academic record. The school offers a number of alternative programs, including music, art programs supported from local artists, and a hospitality course. The participants noted that Daylesford has few problems with graffiti and teenage drugs. They questioned how long this situation would last if nothing was done for the teenagers, as there is limited recreational facilities for in Daylesford.

The growth in Daylesford is having a negative impact on the smaller settlements around the township, as services and employment are moving into Daylesford. Government agencies have also left the smaller towns, but have retained their offices in Daylesford.

Some participants believed that the quality of the domestic water supply was being affected by forestry and farming activities. Whilst others felt that forestry activities

complied with the Code and provided a significant economic base of the Shire and community.

The participants were concerned that the water does not meet World Health Standards, and that the Water Board has advised the community to boil all drinking water. This seems at odds with the image of the district as the centre for mineral springs. It is expected that the problem will be rectified by the end of 1999 when a water treatment plant is opened.

How do you feel about your community?

The participants described Daylesford as friendly, with a diverse background. They were proud of it's unique history of the Swiss-Italian culture and mineral springs. They also felt that the township has a relatively long history for such a new country, and valued the rich background of timber, goldmining, and farming in the area.

Participants felt that Daylesford was a fortunate community in that it had survived the recession and was relatively well off in contrast to other surrounding townships. However, some felt the community was at a crossroads and that the growing dominance of tourism was a threat to the local community through increased cost of living. Some feared the rate of change.

What are your visions for Daylesford?

Many indicated that they would like to see the local economic base become more diverse, not only retaining existing businesses, but also an expansion of new enterprises. The participants felt the town may be vulnerable with tourism as its only economic base.

Some participants hoped that the RFA process will provide long-term security and encourage a sustainable future for the timber industry. Others wanted to see a assessment of the Wombat State Forest and sustainable yield.

Many would like to see a greater support for the local community, their lifestyle and family needs. The participants wanted to see the development of more recreational facilities, such as a skate park. They believe the retention of youth in the community was important for the future of the township.

Some saw planning issues as a priority, including the development of the Shire's new planning scheme, and wanted to see the development of an environmental policy and a conservation strategy. The participants also want to see a detail industrial policy as there is currently no land zone for industrial use. They believed that there was an opportunity for light industry in Daylesford.

There was a desire to retain the spirit and ambience that is unique to Daylesford, as well as a tolerance for alternative values and lifestyles.

6.6 Dunkeld case study area

Dunkeld is situated within the Southern Grampians Shire and is 259 km from Melbourne to the West along the Hamilton Highway. Dunkeld is a small service centre for the outlying agricultural district, which is a major wool and fine wool production centre for Australia. It is situated at the foothills of the southern part of the Grampians National Park at the foothills of Mt Sturgeon and Mount Abrupt. There are a number of fine residences and buildings in the area reflecting the wealthy history of the grazing district.

6.6.1 History

The Tchapwurong people initially inhabited the Dunkeld district. In 1936, Major Mitchell surveyed the area and his favourable report attracted squatters to the area for grazing. The grazing of sheep and cattle soon altered the habitat, diminished native game, and displaced the traditional occupiers of the land. Within 60 years of their first contact with white settlers no identifiable member of the Tchapwurong tribe remained.

The early settlers came from Tasmania, Portland, Geelong, and New South Wales, and took up large tracts around the Plains and Mount Sturgeon. The focus of the farming district was the 44 000 acres of rich river valley named Victoria Valley.

Dunkeld was originally called Mount Sturgeon and was a stopover for diggers to the goldfield. The town changed its name to Dunkeld in 1854. The Wool Pack Inn was the first building erected in 1845, and was followed by the Royal Mail, Shamrock, and Western Hotels. A store and flourmill were opened in 1849, and later a post office and school in 1852. The original outlay of the township concentrated business along the south side of Salt Creek. The quarry near Mount Abrupt provided sandstone for the district and public buildings in Melbourne. It closed in 1920s, but has since reopened.

In 1860s, the Selection Acts forced the break up of landholdings to a maximum of 640 acres. However, many landholders assigning every family member a block, and consequently lead a life of affluence. They enjoyed fox hunting, and the Victoria Valley boasted two racecourses.

Some of smaller landholdings were initially used for agriculture and cropping. However, the smaller lots were not viable in the harsh climate and poor soils, and many of the new settlers sold out to the original families.

The railway arrived in 1877 connecting the district to Ararat and Hamilton, and the Geelong, Portland and Melbourne Ports. The opening of the railway line improved the transport of wool, and also increased demand for Grampian's timber for sleepers and piles to build Melbourne streets, tramways, piers and jetties. The Dunkeld-Penshurst line opened in 1890 but was soon closed in 1897 because of poor patronage and high losses.

Subdivision of large holdings occurred in early 1900s, and after the First and Second World Wars with the Soldier Settler Scheme. In the early 1960s, economic pressures

caused the failure of some soldier settlers and farmers, and amalgamation of holdings became necessary to create more viable farm holdings. Increase mechanisation and farming techniques lead to a contraction of population of the district.

Today the main occupation is fine and superfine wool production with some beef cattle, fat lambs and cropping.

6.6.2 Population characteristics

The population of the Dunkeld township has remained very stable between the Census years, with 444 residents in 1996, compared to 439 in 1991. However there has been a considerable change of persons with nearly a third moving to Dunkeld in the last five years. Only six per cent were non-Australian born and only four per cent were born in a non-English speaking country.

There are relatively few residents aged between 15 and 25 years reflecting the lack of educational and employment opportunities which tend to force young people to larger settlements. However there are a significant number of families with children (thirty-five per cent) and twenty-one per cent of the population was under 15 years old. Twenty-five per cent were over 60 years reflecting an aging population. The median age was 42 years.

The township had 216 dwellings and ninety-five per cent were detached family houses.

Agriculture is the single major employer (twenty per cent), but the service sector industries, education health and government administration, together employ nearly thirty per cent of the population. The unemployment rate of fourteen per cent was relatively high and the median household income was relatively low at \$434 in part reflecting the number of unemployed and the retirees.

6.6.3 Community infrastructure

Dunkeld is a small settlement with a small variety of shops and businesses, including a café, Visitors Information Centre, Royal Mail Hotel, newsagent, two nurseries, two mechanics, and a post office and bank agency. There is a consolidated school, but secondary students travel to Hamilton. There are three churches, and the Museum operates from the old Presbyterian Church.

Sporting facilities include a golf course, football oval, tennis courts, netball courts, and swimming pool. There is also a racecourse which is the scene of the annual 'Dunkeld Cup' held in November.

A doctor lives in the town and operates a part time surgery. The closest hospitals are in Hamilton and Penshurst. The bank and grocery store closed two years ago, which means people go to Hamilton for general shopping needs.

6.6.4 Major industries

Beef and sheep have historically been the major industrial base for the district but in more recent times viticulture, forestry developments and service industries are assuming a greater role. Historically there were always a number of sawmills in the district, but today only one operation remains.

Tourism has expanded considerably in the last five years with the construction of the tourist information centre, the increased provision of tourist accommodation at the Royal Mail Hotel and B&Bs, and the promotion of the township as the 'Southern Gateway to the Grampians'.

6.6.5 Dunkeld community workshop

The Dunkeld workshop was held on 26 April 1999. Representatives attended from Parks Victoria, Dunkeld Consolidated School, a sawmill operator, senior citizens, fire brigade, farmers, Landcare, Field Naturalists, Legacy (Dunkeld District) and the Dunkeld Progress Association.

Participants were asked to mark on maps of the Western Victoria RFA region significant and important sites, places of importance, recreational



uses, and other features, which they felt identified or depicted the region (see Figure 6.5).

What have been some of the significant events in your community in the last ten years?

| Date | Event | Significance |
|-------|---|--|
| 1984 | Grampians declared a National Park. | Boosted tourism in the area. |
| 1989 | Rural recession and declining wool prices | This has flowed onto township. People, especially young people, are leaving the district causing declining school populations. |
| 1990s | Loss of Services | Government agencies have been down-sized. Parks Victoria now only has one ranger instead of two. |
| | | Loss of the VicRoads depot electoral offices, bank, general store. |
| | Loss of People | Aging community |
| | | Affects volunteer fire brigades in a high bushfire prone area. Less people for sports teams. |
| | Changes in rural practices | Increased mechanisation means that less farm labour is needed. Loss of farm families. Amalgamation of farm holdings |
| | Declining workforce | |
| | Increase in the Landcare movement. | There are about six groups in the district. |
| 1990s | | Establishment of the museum. |
| 1994 | | Opening of the tourist information centre. |
| 1995 | Increase in Tourism | Increasing international visitors. |
| | | Promotion of round trip from the Great Ocean Road to Port Fairy to Halls Gap. |
| | | Increasing and diverse tourist accommodation has become available, e.g. host farms, cabins, B&Bs |
| 1997 | Reconstruction of the Royal Mail Hotel | Providing accommodation, conference facilities and employment for 23 locals. |
| | Establishment of Dunkeld Promotion Group | More local attractions promote the area. Great Victoria Bike Ride. Open Garden. The Dunkeld Annual Races attracted over 5000 people and is becoming more successful each year. |
| | | Streetscape improvements to the town |



The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community were the rural recession and the growth of tourism.

How did the community respond to Rural Recession?

Participants felt that the rural recession has meant there is a greater need for off-farm incomes, with more wives now working as well. As more farming families have left the area, more houses are vacant. This is having a multiplier effect of decreasing school populations, and decreasing the number of teachers. The school used to have three school houses and a hostel, but now has only one house. The participants also believed that the decreased need for seasonal labour has meant there are less people coming into Dunkeld, which has impacted on the social events and team sports in the community.

The recession has meant that some landholders have looked to alternative businesses to supplement their income, such as B&Bs, host farms and agroforestry. Landholders are also attempting to improve productivity through increase mechanisation, reduced labour costs, and increased stocking rates.

The participants felt strongly that the decline of the economic and population base of the district led to the closure of the only bank in town. This has meant that people now go to Hamilton for most of their banking needs. Furthermore, people end up doing their shopping while in Hamilton which has resulted in less income being spent in Dunkeld. The local general store closed two years ago. This has increased the economic dependence of Dunkeld on Hamilton as a regional centre. The recession has also impacted on the social life of the town, as people are too busy to join groups such as the CWA, scouts, churches, and young farmers.

In 1994, the log quota was removed from the local timber mill, which resulted in a loss of jobs, as the mill formerly employed seven workers. The mill would also provide free firewood to senior citizens, who now have to buy firewood. However, the mill has recently reopened and sourcing resource from the Daylesford area.

Some participants were concern about the frequency and location of fuel reduction burns carried out by Parks Victoria in the Victoria Valley, north of Dunkeld and at the foothills of the Grampians. They felt that staff and financial cutbacks had meant that the fire prevention measures were inadequate and were potentially threatening the local community. Others felt that fire management was being conducted appropriately, in line with balanced vegetation and fauna management.

How did the Community respond to the increase in tourism?

Participants felt that the community had slowly accepted the need for more tourism, and more locals are becoming involved in the promotion of the town. The development of the Visitors Information Centre has also encouraged tourists to stop in Dunkeld. The Centre operates seven days a week with volunteer staff, and the 'visitors' book' shows that it receives at least 9000 tourists per year.

Other local initiatives include the purchasing the old bluestone Presbyterian Church for a museum, an historic walk has been created around the township and the Progress Association has assisted in the streetscape improvements to the town. The reconstruction of the Royal Mail Hotel is seen as a boost for the town not only in attracting visitors, but also in creating jobs for locals. Tourism has also flowed onto the



Royal Mail Hotel, Dunkeld

construction of tourist accommodation including B&Bs, cabins and the refurbishment of empty cottages.

Tourism has helped to make the locals more appreciative of the natural beauty of the Grampians, which some of the participants admitted they had taken for granted.

Although the participants felt that the growth of tourism has been good for the township, there are some concerns about the long-term future and how far tourism should be allowed to grow without affecting the unique feel of the community.

How do you feel about your community?

The participants described Dunkeld as scenic, with the Grampians creating a beautiful backdrop. Some see it as a typical country town, which is peaceful and quiet. Other participants felt Dunkeld is a vibrant place with a sense of optimism for the future.

It was also seen as a friendly and relaxed community, that could sometimes be a little complacent.

What are your visions for Dunkeld?

Although the participants want to see more tourism generally they want to see Dunkeld remain the same with small scale, low impact development. They do not want 'condos' coming to the town. The participants also want improvements to the infrastructure, including better sewerage treatment, and better services such as a bank, more shops, a grocer and a baker.

One participant wanted to see greater protection of the orchids and the grasslands in the district.

6.7 Heywood case study area

Heywood is a major regional centre in the Glenelg Shire situated 349 km from Melbourne on the Henty highway and 19 km from Portland. It is not only a service centre for the surrounding rural area but also as a commuter centre for Portland.

6.7.1 History

Prior to European settlement the Gunditchjmarra people lived and hunted through the area. Permanent settlement commenced in Heywood five years after Portland was established. Although the nearby coastal areas had been settled by sealers and whalers in the 1820s, it wasn't until the 30s that settlers moved inland to establish sheep stations.

The settlement of Heywood evolved from the establishment of the river crossing over the Fitzroy River and construction of an inn. The bridge played an important role linking Portland to the hinterland.

In 1862 Heywood had a general store, post office and a barber, and it became the commercial centre for the surrounding districts. The district had a plentiful supply of bluestone which was used for houses, churches and road surfacing,

The timber industry dates back to late 1860s, when the pit saw method was used and timber was carted to the railway by bullock teams. The first sawmill was built on the Surrey River in Heywood.

During the depression, many people left the town looking for work and the town's population declined to 150. However, the township slowly regained it's population after the turn of the century. Major industries at this time included the brick works and the shedding and crushing of wattle bark for tanning which was exported to Germany.

The opening of the railway line from Melbourne to Portland was also significant in linking Portland and Heywood and provided an impetus to the timber industry. Timber was also required to build the railway. Although timber and sawmilling were the primary industries during the early life of the settlement, farming and grazing later became the major industries. Land settlement in the early days was limited by the heavy clay nature of the river flats, but with the availability of superphosphates and pasture improvement the district became a grazing and dairying centre.

6.7.2 Population characteristics

In 1996, the township of Heywood had a population of 1305 people. Twenty-three per cent were under 15 years whilst 23 per cent were 60 years or older. The age distribution showed a low proportion of 20–24 years olds. There was a moderate degree of newcomers with 471 people (44 per cent) moving into the area within the last five years.

There were 551 dwellings in the township and these were predominantly separate houses. Home ownership is high with 44 per cent of the household owning their homes and another 23 per cent purchasing their homes.

In 1996, the major employment was derived from the manufacturing sector (19.1 per cent). Retail trade sector (15.1 per cent), health and community service (10 per cent), education (5.3 per cent) and personal (3.4 per cent) sectors were also important reflecting the service role of the township. The labour force consisted of 514 people and the unemployment rate was 9.3. The median family weekly income was \$467.

6.7.3 Community infrastructure

Overall, Heywood has a wide range of community health, welfare, cultural, recreation, administrative and commercial services.

Education facilities include a primary and secondary college, a children's day care centre and a kindergarten. The hospital complex provides hostel care for 45 residents and daycare facilities, and there are two doctors in town. There is also an ambulance service and the RSL provides a community bus service. The senior citizens centre provides meals in the centre and meals-on-wheels.

The commercial centre has supermarkets, hardware, service stations and motor repairs, two banks, a post office, police, NRE Office, as well as a municipal office outpost. There are four churches of different denominations.

A full array of sporting activities can be accommodated at Heywood, including golf, bowling, football, tennis, cricket, basketball, netball, swimming pool, hockey, badminton, squash, angling, a sports complex and a privately operated gym. There are two large sports reserves and a show ground.

Volunteer and community groups include the CWA, Red Cross, the Jerrupmara Cooperative, RSL, Apex, Lions, Masons, Progress Association, Cubs, Guides and Scouts, and a Gardening club.

6.7.4 Major industries

Heywood is a service centre for the outlying rural community. It has farm suppliers, farm plant and machinery repairs, steel supply and fabrication, a superphosphate contractor, farmer field services, and saleyards. Heywood Stock Feed Company produces pellets from hay.

The major district industries are dairying and timber, with the role of cropping and grazing declining. There are also a growing number of large horticultural activities, including wine production and roses.

Since 1994 there has been an increased number of blue plantations have been established and the Council is encouraging value adding to the present forestry products as well as the development of new timber products. About a third of the Shire is public land covering reserved forests National Parks and coastal reserves.

6.7.5 Heywood workshop

A workshop was held at the Heywood Service Centre on the 28 April. Participants represented a range of community groups including the Glenelg Shire, Country Women's Association, the Senior Citizens Club, local Field Naturalist Clubs, the Heywood Hospital, the Department of



Natural Resources and Environment, the Victorian Farmers Federation, Landcare groups, local businesses and the Victorian Apiarist Association.

Participants were asked to mark on maps significant sites, uses, and other features which they felt identified or depicted the Western Victoria RFA region (see Figure 6.6).

What have been some of the significant events in Heywood in the last ten years?

| Date | Event | Significance |
|-------|--|---|
| 1989 | Increase in hobby farmers near the forest. | This has been accelerating in the last ten years. |
| 1990s | Loss of Telephone exchange. | |
| | Changing composition of shopping centre. | Six shops were burnt down. Closure of drapery and bakery stores, and butchers. |
| | Privatisation of the Post Office | |
| | Closure of Country Roads Board Depot. | |
| | Downsizing of Natural Resources and Environment. | |
| | Changing demography | Loss of young people from the district. |
| | | Increased numbers of elderly people. An aging community. |
| | | Increase in vacant houses. |
| | Closure of Industries | Australian Meatworks Holdings. |
| | Closure of Sawmills. | In the 70s there were over 30 mills and only two mills remain today. Large companies successively bought out the timber quotas of the small mills. This resulted in a large number of families leaving the town. |
| | Decreasing wool stores in Portland | |
| | Rationalisation of Services | Changes to Hospital services. All specialist services are now only available in Portland. |
| | Changes in the Agriculture Sector | Increasing farm size |
| 1992 | Wood Wine and Roses Festival | This started seven years ago and now attracts 5000 people. |
| 1994 | Establishment of Blue Gum Plantations. | Less farm families on plantation land. |
| | | Expecting 26, 000 acres in Glenelg shire. |
| | | This accelerates the loss of people from the district. |
| | | Reduction of land available for farming. |
| 1994 | Amalgamation of Shire and closure of Shire Offices (although a service centre has been established). | Loss of Services and as a consequence young people have moved away. |
| 1994 | Reduction of rail services. | Trains no longer stop at Heywood. |

The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community were the restructure and loss of services; and the increase in blue gum plantations.



How did Heywood respond to the restructuring of Local Government, and government agencies and the general loss of services?

The restructuring of local government and government agencies reduced funding for small rural offices. As a result, services were reduced and local jobs were lost, including professionals formerly employed by the council and NRE. While some families moved out of town, others could not due to house and mortgage commitments. Participants believe that the number of people on unemployment benefits has increased in Heywood. The town's sports teams have amalgamated with other districts due to the decreasing number of available players. The loss of people has also affected the membership of volunteer organisations, and participants see this as a major problem as volunteer services as now having to do more as commercial services leave.

Despite this, participants felt that the district has experience growth in some sectors. Although there has been a slump in wool prices, the prime lamb market is strong, dairying has become more profitable and beef prices are improving. The Portland Aluminium Smelter also provides employment for about forty locals from Heywood. As many other Heywood people work in Portland, and the participants felt that this had insulated the township from the effects of the amalgamation and restructuring of government services. Overall they felt that most businesses in Heywood are well established and doing well. They see Heywood's future connected to Portland's prosperity.

It was felt that farm amalgamation has been a recent feature of the dairy sector. The participants also noted that the age of farmers is increasing as fewer young people stay to work on the family farms and instead find other occupations and professions in larger settlements. These structural changes to the rural sector have also contributed to a further loss of people to the district.

How has Heywood responded to the growing number of Blue gum plantations being established?

There are mixed feeling about the increase of blue gum plantations in the Heywood district. Some participants acknowledge that it has enables farmers to sell their farms or earn alternative income by leasing their land. However, there are concerns about the visual impact of the plantations, the loss of faming amenity and possible impacts on the water table. It also means that there are fewer families in the district, which impacts on services such as the fire brigade.

The Heywood district has traditionally been prime agricultural land, and the participants are concerned about corporations buying farms for the establishment of blue gum plantations. In the current economic climate, dairy farms are the only industry that can compete with the land prices, as beef and lamb returns are low. The Council is proposing to institute planning controls to restrict the conversion of prime land to be converted into plantations.

Participants were also concerned that the large multi-nationals firms are buying the land and transferring profits outside the community. While some industries have

sprung up to support the blue gum industry, participants believed that the current contractors involved with planting are from outside the area and interstate. Since blue gum plantations are not labour intensive, the participants believe that there will be little benefit to the local community from plantations.

How would you describe Heywood?

The participants described Heywood as a great place to live, enjoyable, generous, friendly with a strong community spirit.

Participants see Heywood as a satellite town of Hamilton and Portland, and feel it is well positioned in relation to Mt Gambier, Warrnambool and Horsham to offer a variety in day trips. It is also a service centre for the outlying farming community with most facilities being available, and good competition between local businesses. The hospital is about to be upgraded to bring all its facilities under one roof. The participants also believe that Heywood has a lower cost of living than the bigger towns.

Some participants value the temperate climate and the environment including more than 50 orchids in the Cobbobonee Forest, scenic picnic areas and growing number of vineyards.

What visions do you have for Heywood?

There was a strong desire to sees an increase in tourism. Participants want to see Heywood capitalise on its proximity to the Great Ocean Road, and nearby forests. They also want to see festivals such as 'Wood, Wine and Roses' get bigger. At the moment the participants felt that the tourists were not getting to Heywood because they leave the coast at Warrnambool. Portland has recently established a maritime museum which may help to attract more visitors to the region.

Some participants expressed a need to retain the biodiversity of the native forests. There were concerns about the loss of flora and fauna in the local forests, especially the native tiger quoll, and the masked, powerful and barking owl. Some participants wanted to see a stop to the ring culling of trees and clear felling logging and a return to old methods of selective logging which would generate higher employment in contrast to the highly mechanised methods.

Others saw a need to maintain the current management regime for forests, and access roads, rather than putting more land into national parks. They cited how controlled burns can help to maintain the orchid populations.

A major joint venture between local landcare groups in the Glenelg region has a vision to create biolinks between Yambuk, Mt Eccles, Mt Clay and Coleraine. They are also improving stream health by revegetating surrounding areas.

Another vision related to community and economic stability and the need for more jobs, development, and the retention of farming in the Heywood district. It was argued that the government should have policies which support the rural sector, increase

employment, and encourage the establishment of industries in the rural sector, such as information technology and cottage industries.

Participants also believed that the future in farming would improve if people could survive the current economic downturn and instability.

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