

21.02 KEY INFLUENCES

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The planning scheme has been developed in direct response to the following issues, influences and opportunities facing the Loddon Shire.

21.02-1 Community and Settlement

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Population decline. Loddon, like many other rural areas in Australia, is faced with the challenge of a declining population base. State Government population projections predict the population to decline to 7,742 by 2031 (Victoria In Future, DSE, 2004). Population decline threatens the ongoing viability of services, facilities and infrastructure in the towns.

Housing. Although the population maybe declining, the aging population and trend of declining household size means that we will not need less housing in the towns. The number of households in the Shire is expected to increase from 3564 in 2001 to 3885 by 2031 (Victoria In Future, DSE, 2004). New housing will need to be suited to future population trends.

Attractive living environments. Loddon Shire is well positioned to capitalise on the demand for living in small townships and rural environments. The Shire is able to offer housing and land in a variety of attractive urban and rural environments with friendly communities, heritage buildings, quality services and lake, river, farming and forest settings, within an accessible distance to Bendigo. Provision of attractive living environments is important for encouraging new residents into the Shire.

Provision of a range of goods, services and facilities. The range of goods, services and facilities available within the towns of the Shire is a key factor in the standard of living of residents. Declining population levels and rationalisation of services poses a threat to the range of goods and services available to local residents. Developments such as the construction of a new supermarket in Inglewood are a significant boost to the standard of local services and are supported by council.

Ageing population. The proportion of older people in the community is increasing. This has generally occurred uniformly across the Shire, in both urban and rural areas. This pattern of population decline and ageing is characteristic of much of western and north-western Victoria, but compared with regional Victoria, an increased proportion of the population of the Shire is aged. The proportion of the population aged over 60 years is predicted to increase. Presently approximately 25 percent of the population is aged over 60 years, it is estimated that by 2031 this could be as high as 45 percent (Victoria In Future, DSE, 2004). This equates to 1165 additional aged people over the next thirty years.

Rural living. There is genuine demand for rural living in the Loddon Shire. Rural living areas must be appropriately located and managed to protect the viability of agricultural industries, protect agricultural land, protect the condition of the natural resource base and enhance the viability of the existing townships. Rural living properties must be provided with the infrastructure required for quality residential living, such as power and all weather road access, as well as ready access to the goods and services provided in the urban centres of the Shire. Isolated rural living development should be avoided as it imposes undue cost on council in provision of services.

Fire safety. Two types of fire are of particular relevance. Structure fires and bushfires occur throughout the municipality and voluntary firefighters assist in their prevention and suppression. The northern plains are more prone to grass fires while the southern areas can support bushfires in bushland as well as grassland. Structure fires occur within settlements and in rural areas.

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Aboriginal heritage. Within the Loddon Shire there is a rich and diverse Aboriginal cultural heritage which includes 925 registered Aboriginal cultural heritage sites and 14 registered Aboriginal historic places (data from AAV Aboriginal Heritage Register). These

heritage values consist mainly of scarred trees, stone artefact scatters, earthen mounds, stone features, associations with honorary correspondent depots or stations and a small number of burial sites, quarries, collections and an art site. These Aboriginal cultural heritage values are mainly found in association with past and present natural drainage lines and water features such as rivers and lakes, lunettes, high ground, sandy deposits and remnant native vegetation. Documentation of the sites is currently limited, but significant sites are known to be in the vicinity of Lake Boort, Mount Korong, Kooyoora, Pyramid Hill and Kow Swamp. There are also numerous sites along the Loddon River. The basic nature of documentation of Aboriginal heritage in the shire imposes a challenge to council in the protection of significant sites and places.

Heritage buildings, streetscapes and landscapes. There are many heritage buildings and places throughout the Shire of local, state and national significance. The European heritage of the Shire is based on pastoral settlement and goldmining. Heritage assets in the Shire are important as they make a positive contribution to the character of the landscape and the townships, as well as providing a recognition and understanding of the past. Memsie Homestead, Glenalbyn Grange, Pyramid Hill Railway Station, Spring Hill Homestead and Charlie Napier Hotel are protected by state government heritage legislation. Inglewood and Tarnagulla have largely intact traditional streetscapes of unique heritage significance that are fundamental to the character and tourist attraction of the towns. The buildings that comprise these streetscapes collectively form an outstanding feature.

Towns such as Wedderburn, Newbridge, Eddington and Bridgewater also include important historic buildings, often interspersed with more contemporary building forms. As well as older buildings, Korong Vale has an outstanding collection of historic railway artefacts as a result of its past role as a significant railway junction. The historic civic and commercial buildings in the main street of Boort make an impressive contribution to the urban streetscape and the former butter factories at Pyramid Hill and Mincha offer an excellent insight into the early industry of the area.

The Cobb and Co. Inn at Durham Ox, the water well at Kingower and the Boort and Pyramid Hill Railway Stations reflect the transportation of the past.

Mining sites. Many significant historic mining sites can be found throughout the forest and farming areas in the south of the Shire, especially around Wedderburn, Kingower, Wehla and Rheola, and these sites are an important component of the cultural landscape of these areas.

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Environment and Land Management

Protection of remnant vegetation. The Loddon Shire comprises parts of the Goldfields, Murray Fans and Victorian Riverine Plains bioregions. There are 34 ecological vegetation classes in the Shire with 20 having a conservation status of endangered (less than 10 percent remaining) and 14 being identified as vulnerable (10-30 percent remaining). The protection of remnant native vegetation is of vital importance in the Shire as it contributes to the state's biodiversity, stabilises soil, controls erosion, controls water table recharge and, subsequently, salinity and provides habitat for native fauna. There are fewer large tracts of Crown land in the north of the Shire to provide for the preservation of native vegetation. Road reserves support some of the most significant communities of remnant vegetation in the north, as this land has been isolated from the surrounding farming activity. Of particular importance in the north of the Shire is the Terrick Terrick National Park, which contains a forest of Murray Pines, grasslands and the nationally endangered ecological community, Buloke Woodlands.

Box Ironbark Forests. Box Ironbark forests and grassy woodlands of the south of the Shire are recognised as endangered, vulnerable and depleted ecological communities with 75 percent of these communities having been cleared. The Box Ironbark forests within the area are recognised as significant sources of durable timbers, honey, eucalyptus oils and gold and other minerals, as well as for their important habitat and soil and water conservation values. Increasing pressure is being placed on the government to protect this asset from competing uses such as tourism, mining, timber harvesting and eucalyptus oil production.

Native Grasslands. Native grasslands were once widespread across the riverine plains of the north of the Shire, but now are restricted to a handful of isolated remnants on private and public land, such as roadsides and railway lines. The greatest concentration of significant grasslands are found around Mitiamo. These Northern Plains Grasslands are listed as a state threatened ecological community as well as being considered to be of national significance, as so little of this vegetation community remains Australia wide. The ongoing survival of these grasslands could be prejudiced by overgrazing, land development and changes to land management practices, such as the introduction of cropping.

Rare and threatened flora and fauna. The Shire contains a number of species of flora and fauna that are considered rare and threatened. The protection of such species is fundamental to the preservation of the state's biodiversity. The survival of flora and fauna is dependent on habitat provision, preservation of native vegetation and the general health of the natural environment.

There are 72 threatened fauna species in the Shire. Of these nine are nationally listed and 41 are state listed. Regent Honeyeater and Swift Parrot have a national conservation status of "endangered" and there are seven species with a nationally "Vulnerable" conservation status including Greater Long-eared Bat, Malleefowl, Plains-wanderer, Pink-tailed Worm-lizard, Striped Legless Lizard, Growling Grass Frog and Murray Hardyhead.

There are 120 threatened flora species in the Shire. Of these twelve are nationally listed flora species and 33 are state listed. Spiny Rice-flower has a national conservation status of "Critically Endangered", McIvor Spider-orchid, Yellow-lip Spider-orchid, Stiff Groundsel, Turnip Copperburr and Small Scurf-pea have a nationally "Endangered" conservation status, and River Swamp Wallaby-grass, Erect Peppercross, Slender Darling-pea, Red Swainson-pea, Narrow Goodenia, Ridged Water-milfoil are rated as nationally "Vulnerable".

Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregion are listed as "endangered" under the *Environment Protection and Biodiversity Conservation Act 1999*.

Floodplain Management. There are extensive floodplains along the Loddon River, as well as north west from the Loddon River through the lakes and wetland system around Boort and beyond. The area around Lake Marmal is also subject to seasonal flooding. Flood plains provide for the movement and storage of flood waters and the maintenance of natural flow paths is important as floodwaters fill and flush lakes and wetlands. Flooding can be in direct conflict with human activity threatening property, livestock and crops. Inappropriate levees can concentrate flood waters and increase flooding down stream and redirect flows from the natural flow path so as to affect land that may not normally be flood prone. Flood plains must be managed with a view to balancing the need to maintain natural flows, with all landholders in a floodplain being prepared to accept their share of water, and the need to protect property and investment.

Wetlands. Many of the wetland systems in the Shire are threatened or have been eliminated by drainage or alteration to the natural flow paths of water. The removal of a regular supply of water has caused vegetation to die, along with these unique habitats. Protection of wetlands is important for the protection of water quality and biodiversity and for flood mitigation. Catchment and natural resource management strategies have highlighted the need to fence off wetlands and eliminate stock from them as an important initiative for their protection. Some of these wetlands are protected under international agreements such as Ramsar, JAMBA and CAMBA.

Protection of water quality. The quality of water in the Shire is of vital importance to residential and agricultural users, as well as the flora and fauna of the Shire. Runoff contaminated by soil, chemicals and effluent, as well as over allocation of water to agriculture, all contribute to the decline of water quality. The Bet Bet Creek, Bul a Bul Creek, the McCallum Creek and the Loddon River are some of the waterways in the Shire that are known to be suffering from low water quality. In particular, salinity levels in the Loddon River are high and the above waterways are considered to be contributing to this. Laanecoorie Reservoir is in the south of the Shire and is a significant water storage on the Loddon River. Management of land use and development within its catchment is important to protect water quality in this water body.

Salinity. Soil salinity is a challenge in both the irrigation and dry land areas of the Shire. The local community have actively responded to this challenge over the past 20 years, with much success. Appropriate land and water management is required to ensure this problem does not increase. Salinity results from the water table rising bringing dissolved salts from the subsoil to the soil surface and surface water bodies. Extensive clearing of native vegetation in recharge areas, changes to flooding regimes and inefficient irrigation activities have all contributed to the rising water table. Soil salting severely affects the productivity of the soil with many plants, including crops and native vegetation, unable to survive with high salt levels in soil or water. Salinity can also have a profound impact on buildings and infrastructure. Salinity is of greatest concern in the lower lying areas of the north of the Shire around Pyramid Hill and Tragowel Plains, but there are incidences of salinity in the south. The Shire, along with other municipalities, must ensure that the undulating areas in the south of the Shire which are part of the Central Highlands are appropriately managed to prevent the spread of salinity throughout the lower lying areas. Likewise, use of water in the low lying irrigation areas must be sustainably managed to minimise recharge to ground water.

Erosion. Erosion of soil through wind and run off is evident in parts of the Shire. Gully erosion is most prevalent in the undulating southern areas of the Shire, with the granite soils being particularly vulnerable to erosion. In the north of the Shire, wind erosion in the Mallee fringe areas is a threat. Erosion is prejudicial to the productive capacity of land and run off containing soil is detrimental to water quality. Native vegetation stabilises the soils and minimises the potential for erosion.

Public land. There are significant tracts of public land, mainly in the west and south of the Shire, managed by the Department of Environment, Land, Water and Planning and Parks Victoria as state forest for economic, social and nature conservation benefits, namely the Terrick Terrick National Park, Leaghur State Park and Kooyoora State Park and flora, fauna, scenic, bushland and historic reserves.

Management of vegetation for fire safety. The availability of fuel is one primary requirement for bushfires. The management of fuel, particularly fine fuels is a means by which the intensity of wildfires can be lowered and the potential for ignition of structures lowered. This is significant near dwellings. Additional protection can be achieved by structural solutions, siting and by provision of water for fire fighting and access for emergency vehicles. These latter provisions can also improve the safety from structure fires in the absence of bushfires.

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Economic Development

Valuable agricultural land. The majority of the rural areas of the Shire are considered valuable for their agricultural function. This land needs to be preserved for agricultural use and be protected from conversion to non-soil based uses, subdivision into non-sustainable parcels and land degradation in order to provide for the ongoing healthy economic performance of the Shire. In particular, land along the Loddon River between Serpentine and Eddington is under pressure for conversion to rural living due to its amenity and proximity to Bendigo. This land is valuable agricultural land and council has made provision for rural living development elsewhere. Strong controls on housing are required to protect such areas.

Agricultural diversification. The agricultural industry is recognised by the community and council as being the key to a vibrant future. The Shire has areas of high quality agricultural soils, access to water and a climate conducive to diverse, high value, intensive agriculture. Loddon Shire's agricultural industry has unrealised potential for further development. According to a study undertaken on behalf of the Shire, "the Loddon Shire has diversity and scale with regard to agricultural opportunities unequalled in most other municipalities in Australia. This area is a sleeping giant by world agricultural standards." (Horticulture in the Loddon Shire, Miller, 1998)." Opportunities in the agricultural areas of the Shire include expansion of the tomato industry around Boort, viticulture in areas such as Terrapee and Terrick Terrick, olive production and ongoing improvement and innovation in the grains sector. Other developing enterprises offering future growth potential include apples, cherries, chinese pears, walnuts, pistachios and almonds. The Shire's farmers have

demonstrated an ability and willingness to modify farming techniques and experiment with new initiatives and commodities through large numbers becoming involved with programs such as Farm Smart, landcare and cropping and productivity groups. In the last five years significant advances have been made in diversifying the agricultural economy of the Shire, with extensive olive plantings around Boort, expansion of the viticulture and horticulture industry and numerous intensive animal developments.

Subdivision and lot sizes. Council acknowledges that generally large lots are required for agricultural production, especially in the dryland areas. It also understands that farms are, more often than not, made up of a collection of lots, which may be scattered across a district. Council encourages the maintenance of agricultural land in large lots to support this land remaining accessible to the agricultural industry. Irrigated horticulture can use smaller lots for a viable enterprise. The protection of quality agricultural land for agriculture rests both with maintenance of it in viable sized lots and the ability to develop it, including subdivision, for agricultural purposes. The *Rural Zones Review* (2012) has identified that farm sizes are increasing in both dryland and irrigation areas to keep pace with terms of trade

Irrigation water. Much of the north of the Shire is provided with irrigation water from the Goulburn River, supplemented from the Loddon River, via the Waranga Channel. The cost of water is increasing and there is a greater awareness of the limited nature of this resource. In the interests of the long term viability of agriculture, council supports improved efficiency in the use of irrigation water and the transfer of water from low value uses such as grazing to high value horticulture. The Northern Victorian Irrigation Renewal Project will result in a more efficient but contracted irrigation area in Loddon. This irrigation area will become more significant and valuable for production; and non agricultural uses and dryland farming activities must be discouraged in this area.

There may be opportunities for access to water in dryland areas via the Loddon River or the Deep Lead, which would provide opportunities for more intensive forms of agriculture. Although there are no more licences being granted for commercial use of water from Loddon Deep Lead, not all water allocated is being used. There is potential for expansion of horticulture and viticulture throughout this area. Council also recognises the need to support improved catchment management and salinity programs to protect the quality of this valuable commodity upon which the Shire's economy and community depends. Such responses include addressing the salinity issues in the Bet Bet Creek catchment area.

Intensive animal industries. The sparsely populated rural areas of the Shire hold opportunities for intensive animal industries, such as piggeries, feedlots and poultry farms, which require significant buffer distances from residential areas. In the last five years approximately 8 piggeries have been approved in the Shire, along with a number of poultry farm developments. Effluent from these industries can be valuable resource for other agricultural enterprises in the Shire if productively used. Effluent disposal and reuse needs to be effectively managed to prevent detriment to residents and the environment, especially waterways.

Timber Production. While the average rainfall within the Loddon Shire limits the opportunity for the establishment of viable plantations of *Pinus radiata*, access to irrigation water in the north and along the Loddon River corridor to the south, may provide opportunities in the future to establish plantations of durable species of eucalyptus for furniture and structural timbers.

Employment. The key to a vibrant community is the provision of opportunities for employment and wealth generation. Although agriculture is the economic foundation of the Shire, the traditional primary production areas such as cropping and grazing are limited in their capacity to provide direct employment to members of the community. As such, other opportunities such as more intensive, higher value agriculture, value adding of local produce, manufacturing and tourism need to be realised to provide employment opportunities in addition to traditional agriculture. Presently some industries within the Shire are unable to attract suitable employees. The ability to provide suitable staff to maintain local businesses is linked to providing attractive living environments which encourage people to move the Shire.

Condition of natural resource base. The agricultural economy of the Shire is dependent on the condition of the natural resource base. Agricultural viability and profitability in the Shire is challenged by issues such as erosion, salinity, soil structure decline, soil sodicity, acidification and water quality. The future viability of agriculture lies in the willingness of government, council and, most importantly, the community to continue to actively improve land management and promote sustainable resource use to protect and enhance the natural resource base on which the economy and community of the Shire depends.

Manufacturing and value adding. The Loddon Shire Economic Profile and Prospects, 1996, recognises that the Shire should concentrate on attracting agriculture related processing for products grown in the Shire. The Shire is able to offer access to infrastructure, such as excellent transport links to major centres and ports, water, cheap land, raw materials and markets. The availability of a diverse range of commodities in the Shire provides significant opportunities for new industries which process raw materials and by-products of agriculture. Other industries with ongoing potential and importance include those that support the agricultural sector, such as repairs and servicing of agricultural machinery. These industries offer employment options outside of the traditional agricultural sector and provide for people to live and work in the Shire. A tomato sorting and processing facility at Boort uses local product and provides local employment.

Tourism. The Shire has potential for the expansion of the tourism industry based on the Shire's natural and built features. Tourism provides additional opportunities for the economic development of the Shire. Tourism assets of the Shire include European and Aboriginal heritage, agriculture, Loddon River, Lake Boort and the numerous parks and reserves including Terrick Terrick National Park, Leaghur State Park and Kooyoora State Park.

Gold mining. The southern area of the Shire is part of the Central Victorian Goldfields and contains much of the area recognised as Victoria's "Golden Triangle". There are a number of gold mining operations undertaken in the south of the Shire each year. It is recognised that there is still potentially significant gold resources in the south of the Shire which could hold opportunities for local economic development, but there is increasing concern within the community about the impact of this activity on the environment and the need for stringent rehabilitation requirements.

Renewable Energy. , The Shire of Loddon, especially the northern half of the Shire, has high levels of solar exposure. It is also bisected by an electricity transmission line and a 66 kV line. These factors mean that the Shire of Loddon is highly suitable for solar energy generation. This suitability has been supported by the development of a demonstration facility at Bridgewater.

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Infrastructure

Roads and rail. The Shire is serviced by a significant network of highways and roads which present locational opportunities in terms of access to and from the Shire. The Loddon Valley Highway and the Calder Highway move people and goods to, from and through the Shire and provide links to Bendigo, Melbourne and the north of the state. Rail links are provided from a number of key towns to other centres and are most significant for their role in grain transportation to Melbourne ports.

The transport infrastructure is vital to the economy of the Shire, with agricultural industries dependant on quality road access. The local roads, which are the responsibility of the Shire, are a major liability for the council. With a limited budget, council is keen to maximise the use of existing infrastructure and minimise additions to the maintenance program. The cost of upgrading roads for new development should not be unfairly imposed on the community and development, especially development that generates substantial traffic, should be directed to high quality roads.

Upgrade of the Calder Highway and the Bendigo to Melbourne railway line offers significant opportunities for the Shire, through improving access to Melbourne.

Boort air strip. The air strip at Boort provides opportunities for the sale and transportation of produce from this region of the Shire. It is an important asset for local business and tourism in the region.

Sewerage. The installation of reticulated sewerage disposal systems in the larger towns of the Shire introduces opportunities for additional urban development. The amenity of the towns will be improved and those lots which previously were unable to be developed as they were too small for septic tank disposal have now become available for in-fill development. The smaller towns of the Shire (in particular Newbridge and Tarnagulla) are still unsewered and opportunities for further residential development are very limited due to this.

Irrigation infrastructure. The security and quality of irrigation water is fundamental to the agricultural economy of the Shire. Inappropriate developments in close proximity to these channels have the potential to affect water quality. The Wimmera Mallee pipeline has the potential to enhance the security of water supply to parts of the Shire.

Telecommunications. Telecommunications impact on the way businesses are operated and managed. Advances in telecommunications, such as access to the internet, will continue to impact on land use and rural communities by reducing isolation and lessen the need for economic activities and employment be related to location. Broadband is available in parts of the Shire and is important for local business, education and health services. Expansion of this service across the Shire is important to the ongoing operations of other businesses, including farms. Mobile service reception is limited in some areas in the Shire and needs to be upgraded to provide reception in all areas.