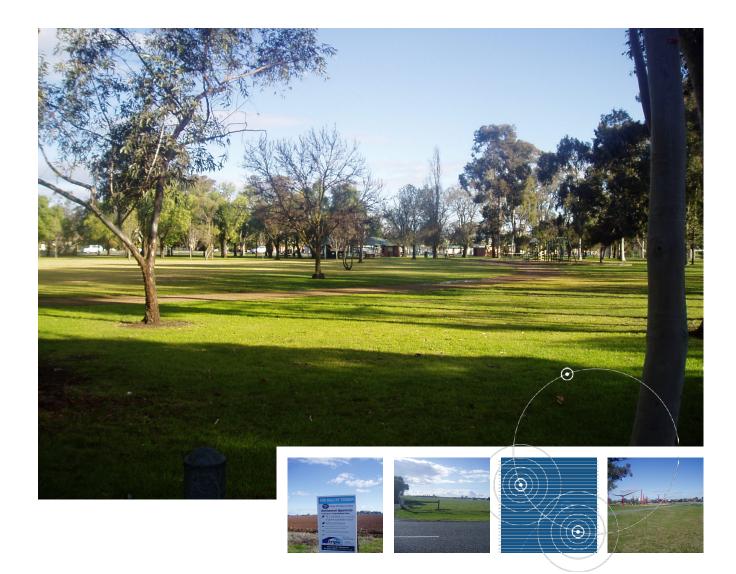
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Mooroopna West Growth Corridor Structure Plan

Adopted at the July 7 2009 Ordinary Council Meeting

Amended following approval of Amendment C160 to the Greater Shepparton Planning Scheme in 2013 Greater Shepparton City Council

Revised in January 2013

Mooroopna West Growth Corridor Structure Plan

Prepared for Greater Shepparton City Council

Prepared by

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1	07/07/2009	Adopted at the July 7 2009 Ordinary Council Meeting	Andrew McCulloch Associate Director - Environmental Management & Planning	Cond	
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Please Note

As a result of the approval of Amendment C-160 to the Greater Shepparton Planning Scheme, the following change has been included in this Plan:

 Revise the "Average Lot Sizes" displayed in Figure ES 2: Mooroopna West Growth Corridor Concept Plan of the Reference Document "Mooroopna West Growth Corridor Structure Plan, July 2009" from "A – 75%/25%, B – 80%/20%, C – 90%/10% and D – 90%/10%" to "A – 93%/7%, B – 95%/5%, C – 95%/5% and D – 95%/5%" to reflect those adopted and approved as part of Amendment C-75 and included in the accompanying Mooroopna West Growth Corridor Development Contribution Plan 2009 and included in the revised Mooroopna West Growth Corridor Development Contribution Plan 2013.



Executive Summary

Study Area

The Mooroopna West Growth Corridor comprises 260 hectares and is bounded by the established township area situated on the western side of Echuca-Mooroopna Road, as well as Cornish Road to the north, the Goulburn Valley Highway (Shepparton Bypass) reservation to the west and Midland Highway to the south.

Background

Land development pressures on the Greater Shepparton City Council ('Council') for residential expansion within the growth corridor situated to the west of Mooroopna township is intensifying with the completion of the final stages of existing land release opportunities. Due to the overall extent of flood prone land surrounding Mooroopna, Council policy has directed new residential development to the Mooroopna West Growth Corridor. As one of four key residential growth corridors within the municipality, the Council has identified a need to maintain a satisfactory supply of residential land within Mooroopna and associated with this, a need to undertake detailed strategic planning to accommodate these opportunities in a co-ordinated and sustainable manner.



Figure ES 1 Mooroopna West Growth Corridor

Report Structure

The Mooroopna West Growth Corridor Structure Plan (Structure Plan) incorporates the following the elements:

- A strategic planning policy overview;
- A demographic analysis and a snapshot of local community growth trends;
- An identification of the development opportunities and constraints for the growth corridor;
- A set of sustainable development growth principles;
- An assessment of future development and infrastructure needs for the study area; and
- A set of precinct plans identifying appropriate locations and densities for future development and physical infrastructure to support that development.

The Structure Plan should be read in conjunction with the *Mooroopna West Growth Corridor Development Contributions Plan, 2008*, prepared by Maunsell Australia Pty Ltd (DCP).



Traffic Investigation

A Traffic Investigation Report was prepared by Maunsell in November 2006 (Traffic Investigation Report) as a precursor to the preparation of the Mooroopna West Growth Corridor Structure Plan and DCP. The main recommendation of the Traffic Investigation Report was that a North-South road be introduced within the Mooroopna West Growth Corridor between the Midland Highway in the south to Echuca-Mooroopna Road in the north. From the analyses of future traffic loads and the function of the North-South Road, a series of traffic engineering recommendations were made in relation to the design and operation of the road and its key intersections.

Planning Policy

Key State and local planning policy considerations relevant to the Mooroopna West Growth Corridor and future decision making by Council have been identified. Planning for increases in population and households are fundamental considerations in setting a long term strategic framework for the development of the Mooroopna West Growth Corridor.

Community Consultation

The Mooroopna West community participated in a stakeholder consultation program that has underpinned and informed the preparation of the Mooroopna West Growth Corridor Structure Plan Report. The study team consulted with various stakeholders including key government agencies, landowners, real estate agents and community group stakeholders. Meetings with individual organisations were also conducted including representatives from VicRoads' Regional Office and the VicRoads' Goulburn Valley Highway Project Office.

Development Opportunities and Constraints

The Mooroopna Growth Corridor is characterised by a range of land use and development opportunities and constraints. These opportunities and constraints will influence, to varying degrees, the form and extent of future land use and development throughout the growth corridor. The main issue impacting on future development within the study area due to the convergence of three major river systems, is flooding. A significant portion of the Mooroopna West Growth Corridor can be classified as "non developable" on the basis that it comprises land contained within an Urban Floodway Zone. The Urban Floodway Zone essentially traverses the corridor in a north-south alignment. A significant portion of the balance of the growth corridor is affected by the Land Subject to Inundation Overlay but is potentially developable subject to the inclusion of appropriate conditions addressing flood mitigation on a planning permit. Future residential and commercial development within the Mooroopna West Growth Corridor should address the identified development opportunities and constraints with particular consideration given to flood mitigation.

Development Precincts

In setting the future development landscape for the Mooroopna West Growth Corridor, developable land has been identified via a set of "precincts". The precincts are land units that essentially reflect localised topographical and flooding conditions as well as their capacity to integrate with the existing township area. The precincts are not based on land ownership arrangements. The precinct areas are summarised within Table ES 1 below.

Precinct	Gross Area (Hectares)
A	66.85
В	15.50
С	19.35
D	54.44

Table ES 1 Mooroopna West Growth Corridor Development Precincts



Future Land Supply

In assessing the future supply of residential land, recognition must be given to an array of factors influencing supply. Various constraints such as flooding, the location of the Shepparton Bypass, the proximity to agricultural activities and individual landowner development intentions, will all impact on the capacity to make new residential land available. Total developable land within the Mooroopna West Growth Corridor, including land currently zoned Farming, has been summarised within Table ES 2.

Utilising an average household size of 2.46 persons, and an annual uptake of 60 lots per annum the fully developed capacity of the Mooroopna West Growth Corridor is expected to support a resident population of 3937, based on a total lot yield of 1600 lots. The ultimate number of new dwellings required within the Mooroopna West Growth Corridor by the year 2020 will be influenced not only by the projected net population increase that the municipality will experience up to that year, but also by a range of factors which will govern household structure. Age profile, household income structure and household type (choice) will all influence household formation.

Sustainable Growth Principles

A series of sustainable growth principles have been prepared for application within the Mooroopna West Growth Corridor to facilitate sustainable land use and development outcomes. The sustainable growth principles relate to the following considerations:

- Subdivision design and layout;
- Building design;
- Water sensitive urban design;
- Transport network planning; and
- Public open space design and provision.

Development Staging

The staging and release of new development within the Mooroopna West Growth Corridor will be determined on the basis of:

- Supply and demand projections for residential development within each of the precincts;
- The logical and cost effective extension of existing physical infrastructure and services;
- The extent of existing and proposed flood mitigation works;
- The establishment of a North-South Road through the growth corridor;
- Existing and future land ownership considerations; and
- Council policy to discourage out of sequence development.

The sequencing of development within the Mooroopna West Growth Corridor should generally result in development occurring east to west (away from the established residential areas) before expanding to the south and north. Given the disparate land ownership structure within the Mooroopna West Growth Corridor, cost effective infrastructure provision and local market dynamics will determine the specific location and timing of land release.



Implementation Requirements

A series of specific implementation requirements have been prepared to guide and support the establishment of new land uses and development within the Mooroopna West Growth Corridor. These implementation requirements address the following considerations:

- Management of flood prone land;
- Infrastructure services;
- North-South Road including land acquisition;
- Utility works;
- Planning approval processes;
- DCP requirements; and
- Planning Scheme Amendment.

The primary implementation tool for the Mooroopna West Growth Corridor is a concept plan. Refer Figure ES2. The conceptual layout for the Mooroopna West Growth Corridor should be used as a basis for the preparation of detailed plans of subdivision as well as new land use and development proposals.



Table ES 2: Mooroopna West Growth Corridor Land Budget.

Precinct A	Land Use	Size of Lot m2	Proportion of Developable Area	Total Developable Area (ha)	No. of Dwellings
	Conventional Residential	650	93%	37.18	572
	Medium Density Residential	350	7%	2.80	80
	School	35000		3.50	
	Commercial	8000		3.32	
		Total	100%	46.80	652
Precinct B	Land Use	Size of Lot m2	Proportion of Developable Area	Total Developable Area (ha)	No. of Dwell
	Conventional Residential	650	95%	7.46	115
	Medium Density Residential	350	5%	0.39	11
	Private School	30,000		3.00	
		Total	100%	10.86	126
Precinct C	Land Use	Size of Lot m2	Proportion of Developable Area	Total Developable Area (ha)	No. of Dwell
	Conventional Residential	650	95%	12.49	192
	Medium Density Residential	350	5%	0.66	19
	Commercial	2700		0.27	
		Total	100%	13.42	211

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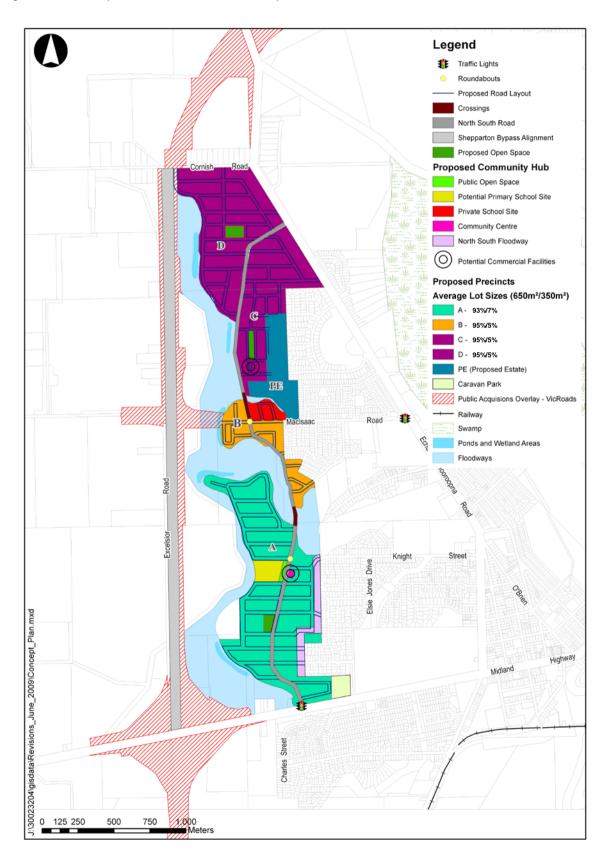


Precinct D	Land Use	Size of Lot m2	Proportion of Developable Area	Total Developable Area (ha)	No. of Dwell
	Conventional Residential	650	95%	36.20	557
	Medium Density Residential	350	5%	1.91	54
		Total	100%	38.11	611
			Grand Total Conventional Residential	93.34	1436
			Grand Total Medium Density Residential	5.75	164
			Grand Total	109.18	1600





Figure ES 2: Mooroopna West Growth Corridor Concept Plan





1.0 Introduction



This section provides an overview of the historical context to the preparation and development of the Mooroopna West Growth Corridor Structure Plan. The Study Area is defined and a "snap shot" of surrounding land use and development is provided to articulate the growth corridor interface issues. The section concludes with a series of objectives for the Mooroopna West Growth Corridor.



1.1 Background Overview

Land development pressures on the Council for residential expansion within the growth corridor situated to the west of Mooroopna is intensifying with the completion of the final stages of existing land release opportunities. The supply of vacant, residentially zoned land within Mooroopna is limited and housing demand has been exceeding supply.

The key inhibitor or restriction on the urban growth and outward expansion of Mooroopna is flooding. Due to the unique geographical combination of a flat topographical form and the convergence of three major river systems, the Greater Shepparton Region as a whole is highly susceptible to flooding.

Shepparton – Mooroopna lies at the confluence of the three main river systems, the Goulburn River, the Broken River and Seven Creeks. Large floods can originate from any one of the three systems or from a combination of the three systems, (Shepparton Mooroopna Floodplain Management Study, SKM, October 2002).

Flooding has historically caused substantial damage to the natural and built environment in and around Shepparton. Due to the overall extent of flood prone land surrounding Mooroopna, existing Council policy has directed new residential development to the Mooroopna West Growth Corridor. As one of four key residential growth corridors within the municipality, the Council has identified a clear need to maintain a satisfactory supply of residential land within Mooroopna and associated with this, a need to undertake detailed strategic planning to accommodate these opportunities in a co-ordinated and sustainable manner.



Figure 3: MacIsaac Road Facing South

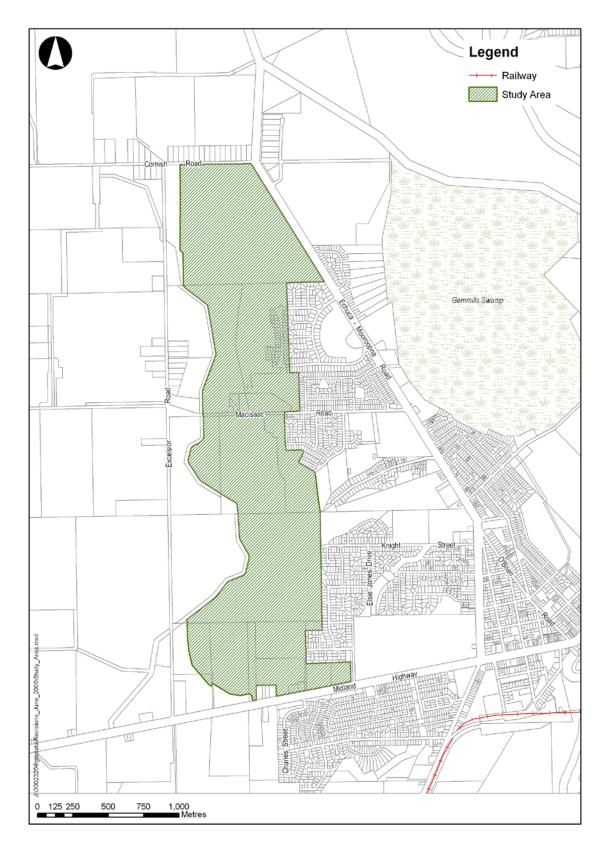
The growth of Mooroopna has been traditionally characterised by incremental, market driven residential development at the periphery of the existing residential areas. It is apparent that conventional lot sizes at the township fringe have tended to range between $500m^2 - 1000m^2$. Lower density lot sizes have tended to range between $1000m^2 - 2000m^2$, whilst medium density lots have been within the $400m^2 - 450m^2$. Local subdivision design has historically involved the widespread usage of cul de sacs and t-heads. The Mac Isaac Road Public Housing Estate for example features a subdivision design based on cul de sacs and pedestrian access to a central open space area. The subdivision configuration within the Mac Isaac Road Public Housing Estate provides a significant contrast with the Craigmuir Lake Estate. Within the more recent Craigmuir Estate, the subdivision pattern is characterised by a combination of curve-linear streets, cul de sacs and generally larger allotments.

Set in this context, the Structure Plan is to provide an overarching strategic planning framework to guide and support the release and development of new residential and commercial land within the Mooroopna West Growth Corridor.

1.2 Mooroopna West Growth Corridor Structure Plan Area

This Structure Plan Report applies to land located immediately to the west and northwest of the existing urban area of Mooroopna. Refer to Figure 4. It incorporates all land bounded by the established residential area situated on the western side of Echuca - Mooroopna Road, as well as Cornish Road to the north, the Goulburn Valley Highway (Shepparton Bypass) reservation to the west and Midland Highway to the south. Irregular in shape, the Structure Plan study area comprises 260 hectares of land that is currently contained within Residential 1, Urban Floodway and Farming zones.







1.3 Land Uses Surrounding the Mooroopna West Growth Corridor

The Mooroopna West Growth Corridor is one of the designated residential growth areas for the Greater Shepparton City Council. Existing land uses within the surrounding area can be summarised as follows:

- Established and developing residential estate areas including subdivisions such as the Finborough Estate, Craigmuir Lake Estate and the Heathmont Estate are all located directly to the east of the Mooroopna West Growth Corridor. A number of community and commercial facilities abut the Echuca Mooroopna Road to the east of the Mooroopna West Growth Corridor.
- To the north and west of the Mooroopna West Growth Corridor, land is primarily used for agricultural purposes and generally comprises either grazing and / or orcharding activities. Extensive tree clearing has occurred to accommodate the agricultural activities;
- The Midland Highway and a small number of business zoned properties adjoin the Mooroopna West Growth Corridor to the south. Land on the opposite side of the Midland Highway is used for conventional residential development and agricultural purposes. A new freight and logistics hub is planned on land further to the south of the existing urban area; and
- A range of community, commercial and recreational facilities are located to the south east of the Mooroopna West Growth Corridor.

A co-ordinated and systematic approach to future development is required within the Mooroopna West Growth Corridor and this includes addressing the interface with surrounding land uses and development.

1.4 Structure Plan Objectives

The primary objective of the Structure Plan is to provide all stakeholders with an overarching strategic planning framework to guide future land use and development of the area as the primary growth corridor for the township of Mooroopna. In essence, the Council is seeking to achieve high quality, co-ordinated and sustainable land use and development outcomes within a growth corridor that is characterised by multiple land ownerships. It seeks to achieve this aspiration by encouraging land use and development outcomes that achieve the Council's environmental, economic and social goals.

The Structure Plan will enable the detailed estate design and subdivision planning processes to have regard to the strategic principles, objectives and visions contained within the Greater Shepparton Planning Scheme and other forward planning documents. The Structure Plan is structured to provide a comprehensive overview of existing and future land use and development issues. Of equal importance, it is also designed to provide a strategic framework to assist and guide future planning permit applications. The Structure Plan incorporates the following the elements:

- A strategic planning policy overview;
- A demographic analysis and a snapshot of local community growth trends;
- An identification of the development opportunities and constraints for the growth corridor;
- A set of sustainable development growth principles;
- An assessment of future development and infrastructure needs for the study area; and
- A set of precinct plans identifying appropriate locations and densities for future development and physical infrastructure to support that development.

In summary, the Structure Plan has been formulated to assist local decision-making via the inclusion of a series of urban growth management principles and associated sustainable development recommendations.



2.0 Planning Policy Context



This section details the key State and local planning policy influences impacting on both the study area and the broader Shepparton region. The section outlines relevant policy requirements that will impact on future land use and development within the Mooroopna West Growth Corridor. Importantly, it identifies the planning policy influences to be considered by Council in its future decision making for the growth corridor.



In the preparation and implementation of the Structure Plan it is appropriate to recognise and consider the State and local planning policy influences impacting on both the study area and the broader region. Outlined below are the key State and local planning policy considerations and how they are relevant to the Structure Plan and future decision making by Council.

2.1 Strategic Context - State Planning Policy

The State Planning Policy Framework ('SPPF') outlines the overarching planning policy that the Government of Victoria is seeking to have implemented.

The State Planning Policy Framework provides a context for spatial planning and decision making by planning and responsible authorities. It is comprised of a statement of general principles for land use and development planning and specific policies dealing with sectoral issues. The specific policies encompass objectives, generic implementation techniques applying across Victoria in relation to the specified policy and geographic strategies that set out directions for particular areas. Planning and responsible authorities must take account of and give effect to both the general principles and the specific policies applicable to issues before them to ensure integrated decision-making.

Amongst other state-wide policies, there are planning policies relating to settlement, environment, and the management of resources and infrastructure. Those State planning policy areas that are pertinent to the Mooroopna West Structure Plan have been identified and referenced as follows.

Planning for urban settlement is discussed within Clause 14. Of relevance are the twin objectives of ensuring a sufficient supply of land and facilitating the orderly development of urban areas. Specific references include:

Clause 14.01-1	Objective: To ensure a sufficient supply of land is available for residential, commercial, industrial, recreational, institutional and other public uses.
Clause 14.01-2	General Implementation: Planning authorities should plan to accommodate projected population growth over at least a 10 year period, taking account of opportunities for redevelopment and intensification of existing urban areas as well as the limits of land capability and natural hazards, environmental quality and the cost of providing infrastructure.
Clause 14.01-3	In planning for urban growth, planning authorities should encourage consolidation of existing urban areas and especially higher density and mixed use developments near public transport routes. Geographic Strategies: In planning for urban growth, planning authorities should have particular regard to Victoria in Future and the annual land Release Forecasts published by the Department of Infrastructure.

Implications for the Mooroopna West Structure Plan

In accordance with Clauses 14.01-1 and 14.01-2 of the SPPF, it will be important to ensure that there is a supply of zoned residential land within the Mooroopna West Growth Corridor to meet at least a 10 year demand taking into account the opportunities for redevelopment as well as land capability constraints, natural hazards, infrastructure provision and environmental quality.



2.1.1 Clause 15.01 – Protection of Catchments, Waterways and Groundwater

Flood plain management is addressed by Clause 15.01 of the SPPF. Flood risk must be identified and considered as part of land use and development decision making. Specific references include:

- Clause 15.01-1 Objective: To assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater, and the marine environment.
- Clause 15.01-2 General Implementation: Decision making by planning and responsible authorities must be consistent with any relevant requirements of State environmental protection policies as varied from time to time (Waters of Victoria and specific catchment policies).

Planning authorities must have regard to relevant aspects of any regional catchment strategies...and any special area plans approved under the Catchment and Land Protection Act 1994.

Planning and responsible authorities should consider the impacts the impacts of catchment management on downstream water quality and freshwater,...and where possible should encourage:

The retention of natural drainage corridors...

Measures to minimise the quantity and retard the flow of stormwater runoff from developed areas.

Measures, including the preservation of floodplain or other land for wetlands and retention basins, to filter sediment and wastes from stormwater prior to discharge into waterways.

Implications for the Mooroopna West Structure Plan

In accordance with Clauses 15.01-1 and 15.01-2 of the SPPF, development within the Mooroopna West Growth Corridor should ensure the protection and, where possible, restoration of catchments, waterways, water bodies, and groundwater. The Structure Plan should ensure that existing and future areas proposed for residential development have adequate stormwater infrastructure in place as a precursor to development proceeding. Flood risk must be considered when making decisions regarding land use planning.

2.1.2 Clause 16.01 (Residential Development for Single Dwellings) and 16.02 (Medium Density Housing)

State wide objectives relating to housing are outlined within Clause 16 of the SPPF. Specific references include:

Clause 16.01-1 Objective: To encourage:

Subdivisions in locations with access to physical and community infrastructure and providing a range of lot sizes, a convenient and safe road network, appropriate pedestrian and cycle paths, sufficient useable open space and low vulnerability to fire.

Residential development that is cost effective in infrastructure provision and use, energy efficient, incorporates water-sensitive design principles and encourages public transport use.

Opportunities for increased residential densities to help consolidate urban areas.

Clause 16.01 -2 General Implementation: Maximum use should be made of Clause 56 to plan subdivisions for development of single houses.



- Clause 16.02 -1 Objective: To encourage the development of well-designed medium density housing which:
 - respects the neighbourhood character
 - to improve housing choice
 - make better use of existing infrastructure and improve energy efficiency of housing.
- Clause 16.02 -2 General Implementation: Responsible authorities should use Clause 54 and Clause 55 in considering applications for medium-density housing.

Implications for the Mooroopna West Structure Plan

In accordance with Clauses 16.01 and 16.02 of the SPPF, land within the Mooroopna West Growth Corridor should support a range of lots sizes and densities in the future (including medium density development) and in locations that are contiguous and interconnected with the existing township area. High quality land should not be utilised for rural – residential development.

2.1.3 Clause 18 – Infrastructure

Clause 18 of the SPPF relates to infrastructure. It seeks to plan for the provision of services that meet the community's needs and protect the environment. Specific references include:

- Clause 18.01-1 Objective: To encourage:
 - To integrate land use and transport planning around existing and planned declared highways, railways, principal bus routes and tram lines.
- Clause 18.01-2 General Implementation:
 - Transport routes should be located to achieve the greatest overall benefit to the community and with regard to making the best use of existing social, cultural and economic infrastructure, minimising impacts on the environment and optimising accessibility, safety, emergency access, service and amenity;
 - New transport routes and adjoining land uses should be located and designed to minimise disruption of residential communities and their amenity; and
 - New uses or development of land near an existing or proposed transport route should be planned or regulated to avoid detriment to, and where possible enhance, the service, safety and amenity desirable for that transport route in the short and long terms.
- Clause 18.12 Objective: To facilitate the timely provision of planned infrastructure to communities through the preparation and implementation of development contributions plans.
- Clause 18.01-2 General Implementation:
 - Development Contributions Plans, prepared and approved under the Planning and Environment Act 1987, should be used to manage contributions towards infrastructure.
 - Development contributions may be collected on the basis of an approved Development Contributions Plan.
 - When preparing Development Contributions Plans planning authorities should have regard to the Development Contributions Guidelines (Department of Sustainability and Environment, June 2003).



Implications for the Mooroopna West Structure Plan

In accordance with Clause 18 of the SPPF, new residential and commercial land use within the Mooroopna West Growth Corridor should be integrated with key infrastructure assets such as roads (including a North-South Road) and drainage assets such as retarding basins and open space. Infrastructure requirements need to be identified to provide a mechanism to recover costs associated with the future provision of essential infrastructure, social services and facilities.

2.2 Strategic Context - Local Planning Policy

The Local Planning Policy Framework (LPPF) forms part of the Greater Shepparton Planning Scheme. It comprises two components, namely the Municipal Strategic Statement (MSS) at Clause 21 and the Local Planning Policies at Clause 22. In the context of the Mooroopna West Growth Corridor, it is relevant to note the following LPPF provisions.

2.2.1 Municipal Strategic Statement (MSS)

The Greater Shepparton MSS details a suite of visions, objectives and strategies in relation to land use, development and conservation within the municipality.

Clause 21.01 – Municipal Profile

This Clause states that the City of Greater Shepparton is the fourth largest provincial centre in Victoria with a population of 60,000 people (2004). Shepparton is the largest urban centre in the region and services a population of 160,000 people that extends well beyond the municipal boundary. The municipality is growing rapidly and this is reflected in the expansive urban areas.

Shepparton and Mooroopna are identified as a transport hub located at the junction of the Goulburn Valley Highway and the Midland Highway and there is continuing support to enhance this role through the development of the Shepparton bypass and freight logistic centre at Mooroopna.

The Goulburn and Broken Rivers meet at Shepparton and these river corridors are the major environmental feature of the municipality. The MSS notes that drainage problems, flooding and water quality issues affect large parts of the municipality.

Clause 21.02 – Key Influences

The MSS has identified key global, national, state and local influences and issues which will shape the future of the municipality. Those particularly relevant to residential land-use and development include:

- Population growth and decline influenced by inter and intra state population shifts;
- Lifestyle changes for retirees and others seeking an alternative lifestyle experience;
- Land price and housing affordability between metropolitan and regional areas;
- Public transport and access to outlying communities;
- Investment in infrastructure to support Greater Shepparton's primary role as a transport and freight hub;
- Land use strategies that provide for growth whilst also protecting the quality of agricultural land; and
- Encouraging the sustainable use of natural resources such as land, water, air and biodiversity.



Clause 21.03 – Vision, Sustainability Principles and Strategic Directions

Council has identified several objectives to support achieving its "Greater Shepparton – Greater Future" vision. These objectives and strategic directions for land use planning and development are underpinned by principles of sustainability.

Council's priorities include:

- Commitment to growth within a consolidated and sustainable development framework;
- Enhancing social connectedness, physical and mental health and well being, education and participatory opportunities in order to improve liveability and provide a greater range of community services;
- Conservation and enhancement of significant natural environments and cultural heritage;
- Promoting economic growth, business development and diversification, with a focus on strengthening the agricultural industry; and
- Provision and re-structure of urban and rural infrastructure to enhance the performance of the municipality and facilitate growth.

Clause 21.04 – Settlement Housing and Urban Design

In relation to residential development, a key challenge for Council is to facilitate *"appropriate and timely release of residential land"* to meet projected growth. The MSS identifies that within Shepparton and Mooroopna:

- The urban areas will accommodate the majority of population growth;
- There is approximately 151 hectares of undeveloped residential zoned land;
- Based on the current take up rate of 400 dwellings per annum, this represents approximately 3.5 years land supply based on the current mix of housing provision; and
- To accommodate DSE's population forecast 1,057 ha (approximately) of residentially zoned land will be required by 2031.

Council is committed to ensuring that:

- Demand for low density residential development and rural living opportunities is satisfied by the existing supply of zoned land and when this is developed, by the systematic and sequential release of additional land in accordance with the Township Framework Plans contained within this Clause;
- Proposals to create additional rural residential land or expand existing small township boundaries will not be supported unless justification has been provided through a supply and demand analysis; and
- Development Plan Overlays are used in conjunction with any future township expansion.

To accommodate the envisaged growth demand, four major growth corridors are designed around Shepparton and Mooroopna where residential densities will be maximised.

The growth corridors are:

- The southern corridor to the south of the Broken River at Kialla,
- The south eastern corridor, along Poplar Avenue, Shepparton,
- The northern corridor, between Verney Road and the Goulburn Valley Highway, Shepparton,
- The western corridor, being the Mooroopna West Growth Corridor.



Relevant strategies to meet the housing settlement objectives of Clause 21.04 include:

Urban Consolidation

- Encourage the consolidation of existing residential areas in the municipality;
- Ensure the density and types of new residential developments are consistent with the role and function of each town;
- Encourage choice and variety in housing in terms of type, affordability and tenure;
- Support increased densities, such as 15 dwellings per hectares, where reticulated sewer and urban services are provided in the existing residential areas, whilst maintaining and protecting existing sewerage reticulation assets; and
- Encourage medium density housing in preferred locations with the following attributes:
 - In existing residential areas.
 - Within 400-500m of public transport routes.
 - Adjacent to open space corridors and parklands.
- In and around the Shepparton CBD (where Council may consider even higher densities subject to design and amenity considerations).
- At major "brownfield" redevelopment sites within existing residential areas.
- In and around neighbourhood centres.
- Encourage the provision of smaller lots to meet the changing demographics structure; and
- Discourage multi dwelling developments within areas affected by the Floodway Overlay.

Rural Residential

- Approve land for rural residential development or small town expansion only where it is supported by:
 - A supply and demand analysis;
 - A Land Capability Assessment which supports the site's suitability for land based effluent treatment and disposal, provides detailed design and management recommendations and also evaluates alternative options where conventional systems will not work; and
 - An analysis under Ministerial Direction No. 6.

Rural/Urban Interface

• Maintain a distinctive urban-rural interface and a green belt between Shepparton and Mooroopna.

Urban Growth

- Provide a settlement boundary beyond which additional urban growth and rezoning should not be supported except in the context of comprehensive review of this strategy;
- Ensure land is released through sequential rezoning to prevent new development leap frogging non residential land, commensurate with the availability of utility services, access to convenience services and public transport, and the choice, supply and availability of other developable land.
- Identify areas for short term residential development which can be serviced;
- Discourage new development which leap-frogs existing non-residential development;
- Encourage new subdivision and developments to promote walking and cycling between facilities, such as between homes and schools, open spaces and shops.
- Protect the environmental assets on the floodplains and environs of the Goulburn and Broken Rivers, Seven Creeks and other designated waterways and



• Promote development in accordance with the Framework Plans.

Specific to Urban Design relevant objectives identified in this Clause 21.04- 3 are to:

- Encourage proposals that demonstrate a positive response to community needs for housing and incorporate good design principles.
- Promote energy efficient and sustainable designs for subdivision, new development and redevelopment of existing buildings and spaces.
- Provide safe and sheltered pedestrian routes through residential neighbourhoods and commercial centres, including access through buildings, arcades and plaza areas
- Encourage landscaping of sites to retain existing vegetation where practical, particularly existing mature trees and other plants.

Encourage the use of indigenous and low maintenance plant species and integration with the Council's (CoGS) adopted urban design themes.

The Mooroopna West Growth Corridor is identified on the "Residential Framework Plan" as an area for future short term residential growth.

Clause 21.05 – Community Life

This Clause recognises the importance of community facilities and services as a key contributor to improved residential amenity and community well being. Relevant objectives to address community issues include the need to:

- Provide an equitable and efficient distribution of community facilities and services, and that appropriate service linkages are provided to facilitate user access;
- Ensure the costs of development are equitably distributed by applying development contributions;
- *E* ensure that facilities, services and policies are appropriate to the sporting and recreation needs of the community;
- Protect and enhance the network of public open space that contributes to the amenity of the municipality and advances the image of the community;
- Address community safety in the planning and management of the urban environment; and
- Provide accessibility in public spaces and new developments.

Clause 21.06 – Environment

This Clause recognises the importance of sound floodplain and natural resource management and identifies the impacts that urban expansion has on the significant environmental values within the municipality. Relevant strategies identified to protect, enhance and manage the environment include:

Best Practice Land Management

- Promote energy efficient and sustainable built forms and development proposals;
- Ensure that planning decisions and approval of development plans have regard to the goals and priorities of the Goulburn-Broken Catchment Management Strategy; and
- Ensure all new developments have adequate reticulated services or effluent disposal systems to protect watercourses and water quality, and to maintain and enhance water quality for both urban and rural use.

Floodplain Management

- Minimise the impacts of flooding to people and property by controlling development in flood prone areas;
- Discourage development and subdivision on land subject to flooding.
- Protect wetlands of significance;



- Ensure that all new developments maintain the free passage and temporary storage of floodwater, minimise flood damage, are compatible with flood hazard and local drainage conditions, and minimise soil erosion, sedimentation and silting;
- Prevent tree removal to minimise loss of riparian vegetation as a result of development on the floodplain;
- Promote the use of appropriate water saving measures; and
- Protect the heritage status of the Goulburn River through liaison with the Goulburn-Broken Catchment Management Authority and Department of Primary Industries.

Clause 21.07 – Economic Development

This Clause discusses the economic drivers within the Shepparton area and the need to maintain a viable and sustainable local economy. Economic areas examined include: Agriculture; Manufacturing and freight; Commercial / Activity Centre Hierarchy; and Tourism. The Commercial / Activity Centre Hierarchy is of particularly relevance to the Mooroopna West Growth Corridor. The clause identifies the Mooroopna CBD as a sub-regional activity centre (Shepparton CBD is the primary Regional Centre) and the Bi-Lo Echuca Road (Mooroopna) area is nominated as a neighbourhood / township centre. The relevant objectives for the provision of local economic development include:

- To minimise conflicts at the urban fringe/agricultural land interface.
- To provide increased opportunities for local job creation.
- To have a hierarchy of viable activity centres.
- To provide convenient access to a range of activity centres and employment opportunities that can serve the expanded municipality.

The objectives are supported by a number of strategies specific to the Commercial / Activity Centre Hierarchy. Relevant strategies include:

- Provide for planned local centres in growth areas.
- Identify lower order neighbourhood retail and community centres to serve convenience needs of north Shepparton, Mooroopna and Kialla.
- Consider the potential for a rezoning land in McLennan Street, Mooroopna, adjacent to the former Mooroopna Hospital to provide for development/uses which complement the proposed retirement complex.

Clause 21.08 – Infrastructure

This Clause discusses the need for the provision of infrastructure to accommodate the needs of the growing population. Relevant objectives for the provision of infrastructure include:

Traffic and Transport Systems

- Promote integrated road network connections with the Goulburn Valley Highway-Shepparton;
- Bypass to reduce intrusion of traffic to the central Shepparton and Mooroopna areas;
- Promote the freight logistics centre (inland port) to provide for the efficient handling and distribution of local produce via the rail and arterial road network;
- Ensure road reservation widths accommodate bicycle lanes on appropriate routes;
- Support new facilities such as community centres, neighbourhood centres, sporting facilities, entertainment, and health services to be located in proximity to public transport routes and/or bicycle paths;
- Provide for efficient and safe pedestrian and cycle movements within existing and new developments;
- Encourage the accessibility and safety for pedestrian movements to be made within the Shepparton CBD area;



- Ensure areas of new growth within the municipality are appropriately guided in terms of road design and access
- Encourage the development of a ring road around the Shepparton-Mooroopna area to reduce traffic intrusion linking the Shepparton Alternate Route, the Midland Highway and the Goulburn Valley Highway-Shepparton Bypass; and
- Ensure development contributions for new developments address transport infrastructure needs.

Urban and Rural Services

Ensure new developments are connected to reticulated services or have provision for adequate onsite disposal with no advised impacts on nearby watercourses;

- Provide appropriate and cost efficient physical and social infrastructure to support the growth of the municipality;
- Protect and maintain wastewater facilities in an environmentally sensitive way, through the application of a Waste Water Management Strategy;
- Ensure that development contributions plans are prepared for all growth areas or that a predevelopment agreement for the provision of infrastructure and community services is in place; and

Ensure new development is in accordance with the Infrastructure Design Manual.

Urban Stormwater Management

- Incorporate stormwater management issues in decision making on future development within the municipality;
- Prepare stormwater management plans in accordance with the Greater Shepparton Stormwater Management Plan for all major subdivisions and building construction sites of greater than 1,000m2;
- Incorporate best practice measures such as those contained in the Greater Shepparton Stormwater Management Plan and the Urban Stormwater Best Practice Management Guidelines into the design of new developments;
- Protect stormwater quality by minimising the potential for pollutants including sediments, litter, nutrients, toxicants, pathogens and other contaminants to enter the waterway;.
- Minimise off site discharge of stormwater through the use of porous pavements, on-site collection, water conservation and re-use;
- Manage stormwater on a catchment or sub-catchment basis with development design having regard to upstream and downstream requirements;
- Provide stormwater management infrastructure at the time of development by the developer; and
- Include interpretive material for wetlands and drainage features as part of the development approvals process.

2.2.2 Local Policies

To support the visions, objectives and strategies in relation to land use, development and sustainability outlined within the MSS, Council has developed a number of local planning policies. The local planning policies of relevance to the Mooroopna West Structure Plan are:

- Clause 22.03 Goulburn Valley Highway Environs Policy;
- Clause 22.04 Building Lines Policy; and
- Clause 22.09 Non Residential Uses in Residential Areas Policy.

Clause 22.03 – Goulburn Valley Highway Environs Policy



This policy applies to the use and development of land within 100 metres of Goulburn Valley Highway. The objectives of this policy are to:

- Ensure that the use and development of land does not prejudice the levels of service, safety and amenity of the Goulburn Valley Highway; and
- Minimise any adverse effects of noise from traffic using the Goulburn Valley Highway.

Clause 22.04 – Building Lines Policy

This policy applies to all land in the Residential, Low Density Residential, Township, Industrial, Business, Public Use, Special Use, Public Park and Recreation, Urban Floodway, and Public Conservation and Resource Zones. The objectives of the Building Lines Policy are to:

• `parking and landscaping within their front setback areas.

Clause 22.09 – Non Residential Uses in Residential Areas Policy

This policy applies to all land in the Residential 1 Zone and the Low Density Residential Zone and Township Zone. The objectives of the Non Residential Uses in Residential Areas Policy are to:

- Allow complementary non-residential uses to be integrated into residential areas;
- Ensure that non residential uses are appropriately located having regard to the:
 - Intensity and hours of operation of the proposed activity.
 - Siting and design of proposed buildings and works, including car parking areas and
 - Advertising signs and telecommunication facilities.
 - Location of access points.
- Ensure that the appearance and scale of development is consistent with nearby housing;
- Reduce the potential adverse impacts on the amenity of residential properties; and
- Avoid the development of defacto commercial strips along main roads in residential areas and the oversupply or duplication of commercial premises.

Implications for the Mooroopna West Structure Plan

Development within the Mooroopna West Structure Plan must have regard to the overview statements, objectives and strategies documented in Council's LPPF, as highlighted above. The Objectives and Strategies contained in Clause 21.03 – 21.08 will be used as the basis for the development of the overarching strategic framework for the Mooroopna West Growth Corridor, with additional statements and modifications included as required based on the other findings of this investigation.

The local policies provide micro level guidance for exercising discretion for planning applications. The key consideration to derive from the above local policies is that urban development should be appropriately located and sited having regard to the specific policy objectives.

2.3 Particular Provisions

Clause 56 – Residential Subdivision

The residential subdivision provisions in Clause 56 of the Greater Shepparton Planning Scheme set out requirements for the design and assessment of residential subdivisions in urban areas throughout Victoria. The provisions aim to create sustainable neighbourhoods and achieve residential subdivision outcomes that respond to the site and its context, in this instance the context being regional cities and towns.



The provisions include objectives and performance standards addressing:

Clause 56.03 - Liveable and Sustainable communities

This Clause seeks the following:

- Create compact neighbourhoods that are oriented around easy walking distances to activity centres, schools and community facilities, public open space and public transport;
- Allow easy movement through and between neighbourhoods for all people;
- Provide for mixed-use activity centres, including neighbourhood activity centres, of appropriate area and location;
- Provide appropriately located sites for community facilities including schools, libraries, preschools and childcare, health services, police and fire stations, recreation and sports facilities;
- Create urban places with identity and character; and
- Design subdivisions that respond to neighbourhood character.

Clause 56.04 - Lot Design

This Clause seeks to:

- Achieve housing densities that support compact and walkable neighbourhoods and the efficient provision of public transport services;
- Provide higher housing densities within walking distance of activity centres;
- Achieve increased housing densities in designated growth areas;
- Provide a range of lot sizes to suit a variety of dwelling and household types;
- Provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling, solar access, private open space, vehicle access and parking, water management, easements and the retention of significant vegetation and site features;
- Provide good solar orientation of lots and solar access for future dwellings;
- Provide a lot layout that contributes to community social interaction, personal safety and property security;
- Identify common areas and the purpose for which the area is commonly held;
- Ensure the provision of common area is appropriate and that necessary management arrangements are in place; and
- Maintain direct public access throughout the neighbourhood street network;

Clause 56.05 - Urban Landscape

This Clause seeks the following:

Integrated urban landscape

- Provide attractive and continuous landscaping in streets and public open spaces that contribute to the character and identity of new neighbourhoods and urban places or to existing or preferred neighbourhood character in existing urban areas;
- Incorporate natural and cultural features in the design of streets and public open space where appropriate;
- Protect and enhance native habitat and discourage the planting and spread of noxious weeds; and
- Provide for integrated water management systems and contribute to drinking water conservation.

Public open space provision objectives

• Provide a variety of open spaces with links to other open spaces and regional parks where possible;



- Ensure that public open space of appropriate quality and quantity is provided in convenient locations to meet the recreational and social needs of the community; and
- Support active and healthy communities.

Clause 56.06 - Access and Mobility Management

This Clause seeks the following:

Integrated mobility

- Achieve an urban structure where compact and walkable neighbourhoods are clustered to support larger activity centres on the Principal Public Transport Network in Metropolitan;
- Melbourne and on the regional public transport network outside Metropolitan Melbourne;
- Provide for walking (including persons with impaired mobility), cycling, public transport and other motor vehicles in an integrated manner; and
- Contribute to reduced car dependence, improved energy efficiency, reduced greenhouse gas emissions and reduced air pollution.

Walking and cycling network

- Contribute to community health and well being by encouraging walking and cycling as part of the daily lives of residents, employees and visitors;
- Provide safe and direct movement through and between neighbourhoods by pedestrians and cyclists; and
- Reduce car use, greenhouse gas emissions and air pollution.

Transport network

- Provide an arterial road and neighbourhood street network that supports a direct, efficient and safe public transport system; and
- Encourage maximum use of public transport.

Neighbourhood street network

• Provide for direct, safe and easy movement through and between neighbourhoods for pedestrians, cyclists, public transport and other motor vehicles using the neighbourhood street network.

Walking and cycling network detail

- Design and construct footpaths, shared path and cycle path networks that are safe, comfortable, well constructed and accessible for people with disabilities; and
- Design footpaths to accommodate wheelchairs, prams, scooters and other footpath bound vehicles.

Public transport network detail

- Provide for the safe, efficient operation of public transport and the comfort and convenience of public transport users; and
- To provide public transport stops those are accessible to people with disabilities.

Neighbourhood street network



• Design and construct street carriageways and verges so that the street geometry and traffic speeds provide an accessible and safe neighbourhood street system for all users.

Lot access

Provide for safe vehicle access between roads and lots.

Clause 56.07 - Integrated Water Management

This clause the following:

Drinking water supply objectives

- Reduce the use of drinking water; and
- Provide an adequate, cost-effective supply of drinking water.

Waste water management objective

• Provide a waste water system that is adequate for the maintenance of public health and the management of effluent in an environmentally friendly manner.

Urban run-off management

- Minimise damage to properties and inconvenience to residents from urban run-off;
- Ensure that the street operates adequately during major storm events and provides for public safety; and
- Minimise increases in stormwater run-off and protect the environmental values and physical characteristics of receiving waters from degradation by urban run-off.

Clause 56.08 - Site Management

This clause seeks to:

- Protect drainage infrastructure and receiving waters from sedimentation and contamination;
- Protect the site and surrounding area from environmental degradation or nuisance prior to and during construction of subdivision works; and
- Encourage the re-use of materials from the site and recycled materials in the construction of subdivisions where practicable.

Clause 56.09 - Utilities

This clause seeks the following:

Shared trenching objectives

- Maximise the opportunities for shared trenching; and
- Minimise constraints on landscaping within street reserves.

Electricity, telecommunications and gas objectives

- Provide public utilities each lot in a timely, efficient and cost effective manner; and
- Reduce greenhouse gas emissions by supporting generation and use of electricity from renewable sources.

Fire hydrants objective



• Provide fire hydrants and fire plugs in positions that enable fire fighters access water safely, effectively and efficiently.

Public lighting

- Provide public lighting ensure the safety of pedestrians, cyclists and vehicles;
- Provide pedestrians with a sense of personal safety at night; and
- To contribute to reducing greenhouse gas emissions and to saving energy.

Implications for the Mooroopna West Structure Plan

Land within the Mooroopna West Growth Corridor must be dealt with having regard to the objectives and standards outlined in Clause 56, as these will be used to assess future subdivision applications within the Mooroopna West Growth Corridor. As part of the "Policy Implementation", the strategic implementation objective is to ensure that the layout and design of a subdivision is consistent with and implements any relevant objective, policy, strategy or development plan for the area set out in the planning scheme.



2.4 Other Planning Considerations

A range of other planning and technical documents prepared for and on behalf of the Council have been considered in setting a sustainable growth framework for the Mooroopna West Growth Corridor. Where appropriate, these planning and technical considerations have been incorporated as part of the "Sustainable Growth Principles" enunciated for the Mooroopna West Growth Corridor. These planning and technical documents and their key messages are summarised below.

2.4.1 Draft Shepparton Stormwater Management Plan (May 2004)

Prepared by Kellogg Brown & Root Pty Ltd, the Draft Shepparton Stormwater Management Plan applies to the township of Mooroopna. The aim of the Plan is:

To identify actions to improve the environmental management of urban stormwater and protect the environmental values and beneficial uses of receiving environments.

Within the Draft Shepparton Stormwater Management Plan it is recognised that improved stormwater management is critical in minimising the discharge of pollutants into local waterways. To this end, activities adversely affecting water quality are examined within the Plan. Using Urban Stormwater Best Practice Management Guidelines, Revised Chapter 3, 2001, a series of strategies have been developed to protect water quality and beneficial uses from stormwater runoff.

2.4.2 Shepparton – Mooroopna Floodplain Management Study (October 2002)

Prepared by SKM, the Shepparton – Mooroopna Floodplain Management Study ('the Floodplain Management Study') provides extensive two dimensional hydraulic modelling and mapping. The overall objective of the Floodplain Management Study is to minimise the overall economic and social impacts of flooding on the community. It is noted that recorded major floods for the Greater Shepparton area including Mooroopna occurred in the following years:

- September 1921;
- September 1924;
- December 1934;
- August 1939;
- July 1956;
- August 1958;
- May 1974;
- September 1975;
- July 1981; and
- October 1993.

The Floodplain Management Study provides extensive hydrological modelling and mapping. In relation to floodplain management, it states that:

Building development on floodplains must be managed in a controlled and coordinated way not only to maintain the natural flow patterns and the environmental values of floodplains but also to minimise the risk to life, health and safety of occupants.

Identified reasons for the planning approval system to control development in floodplains include:

• The cumulative effects of unplanned and uncoordinated development can have long term detrimental effects, including changes to flooding patterns, particularly if waterways are obstructed or modified;



- The construction of dwellings below the design flood level may result in significant flood damages and associated personal trauma;
- Inappropriately located buildings or dwellings can place occupants in life threatening situations, as floods aren't always preceded by advance warnings; and
- Through its planning scheme, the Greater Shepparton City Council is well placed to ensure that building construction is carried out in accordance with local and regional flooding conditions, and established planning guidelines.

2.4.3 City of Greater Shepparton "Cities for Climate Protection" Program – Local Action Plan

The City of Greater Shepparton agreed to participate in the Cities for Climate Protection Program ('CCP') on 19 September 2000. This document details Council's corporate and community objectives in relation to reducing greenhouse gas emissions. An inventory of Greenhouse Gas Emissions within the City of Greater Shepparton has been compiled. Consistent with the CCP framework, a Local Action Plan has also been prepared and a series of corporate and community actions and goals have been set to reduce greenhouse gas emissions.

The Council acknowledges that climate change through greenhouse gas emissions will lead to drier conditions for the local region. The Council has formally endorsed the goal of reducing both corporate and community greenhouse gas emissions from 1999 levels by 20% by 2010.

2.4.4 City of Greater Shepparton Bicycle Strategy Review (June 2006)

This strategy undertaken by PBS International Australia Pty Ltd is a review of the 2000 City of Greater Shepparton Bicycle Strategy. It builds on the previous body of work through extensive surveys of the existing network, community and stakeholder consultation and a review of background documentation. This Review has identified a number of issues that form barriers to cycling. The strategy recommends improvements to bicycle facilities including:

- Road shoulders;
- On road cycle lanes; and
- Safety intersection treatments

The Strategy also identifies specific bicycle network proposals with approximately 84 km of bike paths proposed at a cost of \$9.3 million. It identifies bike paths within and linking the future development area of Mooroopna West Growth Corridor.

The identification of rail trail development, directional signage schemes and advice on cycle parking facilities within the Strategy provides the basis for the development of planning controls related to bicycle facilities.

2.4.5 Greater Shepparton Street Tree Master Plan & Urban Character Study (1996)

Prepared by Panta Rhei Information Technology and Urban Initiatives Pty Ltd, this Study details the Council's vision for the development and landscaping of its streets over the next twenty years. Amongst others, the key objectives are to:

- Assist the Council in the planning, budgeting, implementation, and maintenance of street tree planting by providing guidance on suitable species, locations, and planting patterns that reflect the surrounding character and situation;
- Enhance the identity and aesthetic image of the differing character precincts by proposing specific planting themes; and
- Address the differing needs and cultural requirements of the various communities/districts within the municipality.



It is relevant to note the "Character Summary" for land adjoining the Mooroopna West Growth Corridor. It notes that:

This is a large area to the north west of central Mooroopna that appears to have been developed as a series of incremental subdivisions over the past twenty years. The area includes some commercial and public facilities and open space. Most houses are single storey detached and brick but the area also includes a retirement village and some multi-dwelling developments. Street detail, street trees, dimensions and housing design vary from development to development according to fashion. Some more recent streets have been developed without overhead services. The subdivision pattern is quite permeable with many cul de sacs and a lack of continuity in the street pattern.

The Tree Master Plan & Urban Character Study establishes a set of principles for future street development within the City of Greater Shepparton. Proposed tree species are listed for various land use areas and street networks throughout the municipality.

2.4.6 Draft Playground Provision Strategy 2003 – 2018 (August 2003)

The City of Greater Shepparton values highly the benefits that public play spaces provide for the physical, cognitive and social development of children. The strategy identifies the distribution, accessibility, quality, safety and play value of play spaces and play equipment. Opportunities to enhance play spaces as well as the capital and maintenance costs for play spaces are considered within the strategy. It is noted that a total of seven playgrounds are currently provided within the township of Mooroopna. Of particular relevance to the Mooroopna West Growth Corridor, the strategy states that development of new playgrounds should be based on the "Steps in Assessing Requests for a Playground Guidelines".

2.4.7 Infrastructure Design Manual

The City of Greater Shepparton has developed an Infrastructure Design Manual that includes infrastructure design guidelines for all residential developments within the Municipality. All designs should be undertaken in accordance with this Infrastructure Design Manual.

Implications for the Mooroopna West Structure Plan

Development within the Mooroopna West Growth Corridor should have regard to each of the technical studies outlined above as appropriate. Relevant principles, objectives and strategies within this section will be incorporated within the implementation requirements of the Mooroopna West Structure Plan Report as may be appropriate.



3.0 Strategic Profile



This section provides a detailed strategic analysis of the "local context" from demographic, environmental, economic and recreational perspectives.



3.1 Local Context

The Mooroopna Township is located four kilometres to the west of Shepparton within the Goulburn Valley region. The township covers a geographical area of approximately 7.2 square kilometres. Topographically, Mooroopna is flat and as a consequence, flood prone. Geologically, Mooroopna and the Goulburn Valley lie within the "Melbourne Trough", a large triangular formation consisting entirely of thick marine deposits.

In 2006, the total population for Mooroopna was 7,203. A more detailed analysis of the population structure of Mooroopna is provided within Section 4.2 of this Report.

Like many rural towns, Mooroopna is located within a regional economy defined by highly valued agricultural activity. The local economy is underpinned by fruit growing as well as diary and beef cattle farming. With extensive orchards in the vicinity, Mooroopna forms part of the regional area which is significant in terms of Victoria's agricultural production.

The key industry located within Mooroopna is the SPC – Ardmona Cannery and its popular factory outlet store. A number of associated industries such as food processing, manufacturing and transport related services reside within Mooroopna and Shepparton.

Environmentally, the main feature at Mooroopna is the Gemmill Swamp Wildlife Reserve. This is a large wetland (comprising 170 hectares) of state significance located at the northern periphery of the Mooroopna township area. It supports large numbers of international migratory species and has ecological value as a breeding habitat for a diverse range of bird life and animals. In terms of vegetation, Gemmill Swamp Wildlife Reserve contains a combination of open and closed forest (River Red Gum dominated) and closed grassland (Giant Rush dominated) areas.

A number of sporting ovals and facilities exist at the Mooroopna Recreation Reserve located on the corner of Echuca – Mooroopna Road and Midland Highway. A public golf course defines the eastern boundary of the township area and a public swimming pool is provided on O'Brien Street. Educational institutions within the township include Mooroopna Primary School, Mooroopna Park Primary School, Mooroopna Secondary College and St Mary Primary School.

The proposed Goulburn Valley Freight and Logistics Centre (GVFLC) is located approximately 2km south of Mooroopna township where Toolamba Road meets the existing Melbourne-Tocumwal Railway and the proposed Shepparton Bypass. The site takes advantage of the proposed Bypass, including a potential route for the Melbourne-Brisbane Inland Railway, to link with State and National transport networks. The GVFLC will progressively open in stages and function as an inland port and distribution centre for the wider region. The GVFLC site covers 331 hectares and is proposed to incorporate an intermodal terminal served by road and rail, container park, distribution and logistics operations and associated repair and maintenance facilities. The site has been re-zoned to Special Use Zone 6 (SUZ6) in the Greater Shepparton Planning Scheme for the purpose of the Freight and Logistics Centre.

3.2 Demographic Context

3.2.1 Population Structure

Planning for increases in population and households are fundamental considerations in setting a strategic framework for the development of the Mooroopna West Growth Corridor. From a regional perspective, the total population for the City of Greater Shepparton was 57,089 in 2006 (ABS, QuickStats 2006) with approximately 70% concentrated within the main urban centres of Shepparton, Mooroopna and Tatura. Shepparton experienced a slower than average for regional Victoria growth rate between 2001 – 2006 (approximately 0.4%) compared to the previous five year period, where the population of Greater Shepparton grew at the rate of 1.4%, which was higher than the State average growth of 1.2%.



Mooroopna's total population in the 2006 Census was recorded at 7,203,

representing a total population increase of approximately 4.7% (or 324 persons) from the resident population at the 2001. Between 1996 and 2006, the township of Mooroopna had an average annual population change of 0.94% with a similar growth rate experienced between 2001 and 2006, higher than the Greater Shepparton average. The annual growth rate at Mooroopna was slightly higher than the average annual population change of 0.8% for regional Victoria between 2001 and 2006.

The age structure of Mooroopna residents is distributed fairly even between various age cohorts. In the 2006 Census 22.7% of the population usually resident in Mooroopna (Suburb) were children aged between 0-14 years, and 24.9% were persons aged 55 years and over. The median age of persons in Mooroopna was 35 years, compared with 36 years for persons in Greater Shepparton. The age groupings derived from the 2006 census are identified within Figure 5. In 2006, Mooroopna contained 12.6% of the overall City of Greater Shepparton population.

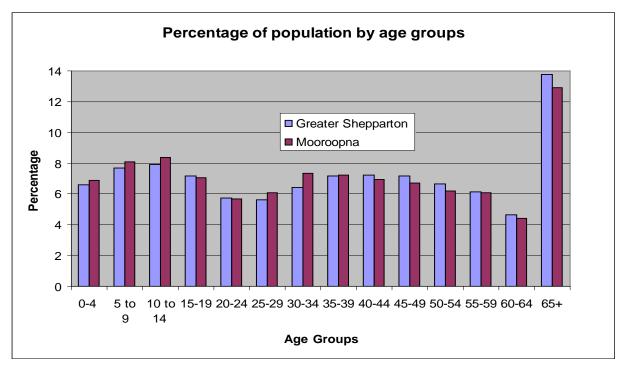


Figure 5: Mooroopna Age Groups – 2006 Census

3.2.2 Household Structure

The total number of private dwellings in the township of Mooroopna increased from 2,793 in 2001 to 3,053 in 2006. Over the same period the vacancy rate increased from 4.9% in 2001 to 8.1% in 2006, a reversal in the trend experienced between 1991 and 2001 of decreasing vacancy rates. The 2006 Census also suggest that the average household size in Mooroopna is 2.4 persons compared with 2.6 for the Greater Shepparton average. In the 2006 Census Mooroopna 67.6% of occupied private dwellings were family households made up of family households and 28.0% were lone person households and 3.0% were group households as shown in Table 3.



Table 3: Household Structure 1996-2006

Year	1996	2001	2006
Households	%	%	%
1 person	23.5	26.1	28
2 persons	31.8	32.4	34.1
3 persons	15.6	15.9	15.6
4 persons	17.6	15.6	13.1
5 or more persons	11.5	10.1	9.2

The trend towards smaller households, similar to the rest of Victoria, can be attributed to factors such as changing patterns of household formation. Increasing divorce and separation rates often lead to the formation of smaller households. Another factor impacting on household size is the trend for couples to delay starting a family, then to have fewer children.

Overall, the population structural trends for Mooroopna are driving an increased demand for housing as well as a diversification in the size and type of housing stock.