Transport
The development and maintenance of safe and efficient traffic and transport systems throughout the municipality is a priority. Key initiatives requiring implementation include:

- Provision of demand orientated public transport to remote locations, especially for community services;
- Fast train link to Melbourne;
- The development of a second river crossing;
- The development of the GV Link freight logistics centre at Mooroopna and associated freeway access;
- The potential relocation of the Shepparton aerodrome but only following detailed feasibility investigations in the demand for air services, the capacity of the existing facility, and potential locations for a new facility. This issue becomes more critical as the southern growth corridor develops, with implications for adjacent land use;
- The development of an integrated road network for general road users which seeks to minimise intrusion to the local road networks and the central Shepparton area;
- The facilitation of land use planning and freight infrastructure to reduce amenity impacts of freight on central Shepparton and Mooroopna areas, decrease conflict of freight with other road users and improve transport efficiency.
- The development of the Goulburn Valley Highway Shepparton Bypass;
- Linkages between the Goulburn Valley Highway Shepparton Bypass and the surrounding arterial road network in order to reduce traffic intrusion to the central shopping areas; and
- An integrated transport network to better link road and rail freight which will work to reduce freight traffic intrusion to the central Shepparton and Mooroopna areas.
- The encouragement of bicycle facilities and infrastructure in accordance with the Greater Shepparton Cycling Strategy 2013-2017.
- Road widening where required, particularly in areas where traffic is likely to increase as a result of the Goulburn Valley Highway Shepparton Bypass.
- The planning of freeways and highways and the planning and control of land use and development in the areas through which they pass should be coordinated and integrated especially on the Goulburn Valley Highway.
- Planning for car parking is important for the continuing development of Shepparton’s business and retail sector.
- In order to help facilitate public car parks, it is proposed to implement a cash-in-lieu contribution scheme whereby contributions for unmet parking requirements can be used to acquire land for car parking and to develop and improve car parks to support the consolidation and growth of the CBD.
- Council has prepared the Shepparton Central Business District Parking Precinct Plan 2003 to guide future decisions in relation to parking in the town centre, particularly in making provision for cash-in-lieu contributions.

Objectives - Transport
- To ensure the safety and efficient functioning of the roads for a variety of users.
- To maintain air services to and from Shepparton.
- To ensure new developments incorporate appropriate bicycle infrastructure.
To ensure parking that meets the demand and supply requirements of the CBD.

To ensure that adequate parking is provided for all new uses and developments.

To ensure that the use and development of land does not prejudice the levels of service, safety and amenity of the Goulburn Valley Highway.

To minimise any adverse effects of noise from traffic using the Goulburn Valley Highway.

**Strategies - Transport**

- Encourage the early development of the Goulburn Valley Highway Shepparton Bypass in particular the northern river crossing as a first stage.
- 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 GV Link freight logistics centre at Mooroopna to provide for the efficient handling and distribution of local produce via the rail and arterial road network.
- Investigate the feasibility of relocating the airport.
- If feasible, identify a possible new site outside the urban growth boundary for the Shepparton Aerodrome with the following attributes:
  - flight paths not to impact upon the future residential areas,
  - access to Shepparton city and the by-pass, flood free and on land with poorer soils, and
  - not constrained by overhead infrastructure.
- Provide for the continued operation of the airport facility while the feasibility of relocating to a new site is identified.
- Recognise that residential growth toward the current airfield may be constrained by the current location of the Aerodrome.
- Support the preferred uses of residential/commercial at the Aerodrome site, in the event of its relocation.
- 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 and in the CBD area.
- 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.
- Ensure development contributions for new developments address transport infrastructure needs.
- Avoid new access to the Goulburn Valley Highway and minimise direct access by providing access through the local road system or service road if possible.
- Require an application for a noise sensitive use and development (including subdivision) to be accompanied by a report by a qualified acoustic consultant outlining the necessary noise control measures which should be undertaken.
- Ensure that parking associated with non-business uses in or adjacent to the CBD does not impact upon on-street parking related to business or for CBD activities.
Urban and Rural Services

The following is an overview of the key urban and rural infrastructure provision issues for communities throughout Greater Shepparton.

- The impact of growth and subsequent augmentation requirements of water supply infrastructure have been determined.
- Shepparton, Mooroopna, Tatura, Murchison and Merrigum all have reticulated sewerage services managed by Goulburn Valley Water and there are no proposals to provide this service to any other community within the next 10 years.
- Goulburn Valley Regional Waste Management anticipates that within the next 20 years technology may change the way we are currently treating and managing waste with government regulations expected to limit the amount of waste going to landfill with greater emphasis on recycling and green waste reuse.
- All new developments must incorporate water sensitive urban design principles and developers must consider stormwater quality, include erosion and sediment control plans in accordance with the Best Practice Environmental Management Guidelines for Urban Stormwater.
- Shepparton, Mooroopna, Tatura and Merrigum have natural gas reticulation supply and there are no plans for natural gas extension to other townships in the municipality.
- Goulburn Murray Water is responsible for the supply and distribution of irrigation water for rural use and the long term operational goal for the organisation is to continue to deliver water as efficiently as possible with the minimum amount of cost. Automation of channel structures has been introduced to the channel network system and replacement of open channels with pipelines will be ongoing.
- There is a need to ensure that new development provides physical and community infrastructure through development contributions plans or pre-development agreements as part of development plans.
- There is a need to implement the infrastructure and development contributions of the Greater Shepparton Cycling Strategy 2013-2017.

Objectives - Urban and Rural Services

- To ensure that waste management facilities are protected from the encroachment of unsuitable development.
- To ensure a continued supply of high quality water for urban and rural use.
- To protect irrigation infrastructure from urban development.
- To provide telecommunications facilities available to all areas of the municipality.
- To discourage the use of the rural drainage network to facilitate urban or industrial expansion.

Strategies - Urban and Rural Services

- Ensure new developments are connected to reticulated services or have provision for adequate on-site disposal with no adverse impacts on nearby watercourses.
- Provide cost efficient physical and social infrastructure to support growth.
- Establish appropriate buffer distances around existing waste water facilities to protect them from encroachment of unsuitable uses.
- Protect the water supply catchment within the municipality.
- Protect landfill sites from encroachment by inappropriate development.
- Ensure that development contributions plans are prepared for all growth areas or that a ‘pre-development’ agreement for the provision of infrastructure and community services is in place.
Support an efficient water supply and distribution system throughout the rural areas in accordance with the Regional Catchment Strategy.

Require developers to provide a Land Capability Assessment where sewer is not available.

**Urban Stormwater Management**

The following is an overview of the urban stormwater management issues for communities throughout Greater Shepparton.

- Council is committed to progressing principles of environmental sustainability, and effective stormwater management forms a key component of this objective.
- The *Greater Shepparton Stormwater Management Plan (2003)* (GSSMP) identified the municipality’s waterways as being valuable assets, providing important ecological habitats, attractive recreational areas and in some instances contain sites of cultural significance and serve to enhance property values.
- However, urban areas within the municipality can have an impact on water quality and the values of the waterways. The GSSMP is relevant to the urban areas including residential areas, industrial and commercial land use activities, and open space areas.
- Utilising existing irrigation drainage infrastructure for urban development should be considered secondary to the implementation of urban stormwater drainage systems.

**Objectives - Urban stormwater management**

- To maintain and enhance stormwater quality throughout the municipality.
- To ensure that new development complies with the Infrastructure Design Manual.

**Strategies - Urban Stormwater management**

- 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.
- Minimise off site discharge of stormwater through the use of porous pavements, on-site collection, water conservation and re-use.
- Provide stormwater management infrastructure at the time of development.

**Infrastructure Planning, Design and Construction**

The design, management and delivery of infrastructure are key issues for Council. The efficient delivery of infrastructure is a fundamental element in providing affordable and diverse housing, generating economic growth and managing the municipality in a sustainable manner.

Standardised infrastructure design guidelines provide the opportunity to improve the efficient assessment and development of infrastructure. The *Infrastructure Design Manual* prepared by the Local Government Infrastructure Design Association (IDM) has been adopted by Council to assist in this assessment and is included as a Reference Document in this planning scheme.

The IDM includes guidelines for the design and construction of infrastructure within the municipality, including (among other things) roads, drainage, stormwater, car parking, landscaping, access, earthworks, public lighting and intersection infrastructure.

The IDM complements the objectives and standards of Clause 56 for residential subdivision applications. The IDM will also be used to assess subdivision and development applications in all other zones and in the development and assessment of Precinct Structure Plans and development plans.
Objectives – Infrastructure

To provide clear and consistent guidelines for the planning, design and construction of infrastructure.

Strategies – Infrastructure

- Encourage a consistent approach to the design and construction of infrastructure across the municipality.
- Encourage an integrated approach to the planning and engineering assessment of new subdivision and development.
- Encourage new subdivision and development that has regard to the objectives and requirements of the IDM or an approved Precinct Structure Plan.
- Encourage the provision of infrastructure that is responsive to township and local character.

Reference Document

*Infrastructure Design Manual (as revised)*, Local Government Infrastructure Design Association.

**Strategic Work Program**

**Undertaking further strategic work - Infrastructure**

- Develop a statutory plan for the Shepparton Alternate Route.
- Develop a parking precinct plan for the CBD to establish a set of appropriate rates for the future provision of parking in the CBD, including cash-in-lieu contributions as part of major developments where there is an identified need.
- Prepare a strategy for future use of remnant parcels of land created by the construction of the Goulburn Valley Highway Shepparton Bypass.
- Undertake a traffic study investigating the options for the development of a north-south arterial road network to comprise Archer Street, Lockwood Road, Andrew Fairly Avenue, Hawdon Street and Verney Road to complement the current north-south arterial road network.
- Provide for the future expansions of the Cosgrove landfill site by identifying a Public Acquisition Overlay.
- Provide for a Murchison waste transfer station site north of Murchison by identifying a Public Acquisition Overlay.
- Prepare stormwater management plans all major subdivisions and building construction sites of greater than 1,000 square metres.
- Develop a Transport Strategy for the Shepparton CBD to allow safe and efficient movement for all users, including pedestrians.
- Investigate the feasibility of, and the site and location requirements for, a relocated regional airfield.
- Undertake a feasibility analysis of a rail link to the GV Link freight logistics centre at Mooroopna.
- Investigation of a rail bypass around the Shepparton town centre, along a similar route to the Goulburn Valley Highway Shepparton Bypass.
- Support and encourage the investigation of a fast train link.
- Facilitate the extension of natural gas to remote townships, through continued liaison with power servicing authorities.
- Ensure new developments cater for telecommunications infrastructure.