Chapter 5 Transport & Infrastructure

5.0 Introduction

The population of Lismore in the 2011 CSO Census stood at 1,369 people. Adequate transport links and public infrastructure provision is vital to cater for the existing population and also for the future sustainable development of the Town. Also, the achievement of an appropriate balance between infrastructure provision and land use zoning establishes an effective and efficient foundation for future capital investment in road, water supply, wastewater treatment and waste management projects in the Town.

Aerial View of Lismore

This Chapter examines the transportation networks in the Town and focuses on strategic improvements that can be made to ensure that Lismore is easily accessible to all groups of society and is adequately serviced in terms of public transport and alternative private transport modes. It also provides an overview of the services and infrastructure currently provided in Lismore and outlines future requirements to ensure the orderly and planned development of the area.

5.1 Transport & Traffic

The requirement for the expansion of Lismore's transport infrastructure is derived from both the unprecedented development levels experienced in the Town and across the County up to 2008, and also the estimated needs of the future development patterns in the Town.

The increasing population of Lismore has introduced additional traffic onto the roads which in turn lead to greater demands on traffic management and car parking. The 2011 CSO Census statistics demonstrate that 33.5% of households in the Town have 2 or more cars. The Plan must achieve a proper balance between providing good access, managing traffic and maintaining environmental quality. It is a policy of the Council to ensure the provision, improvement and maintenance of an adequate roads infrastructure to achieve the strategic objectives of the Plan in accordance with the principles of sustainable planning and development.

In order to ensure that developments are sustainable, land use and transportation planning has to be co-ordinated and integrated. Developments should be designed to reduce the trip

generation by cars and a modal shift in transportation from cars to more sustainable forms of integrated public transport will be encouraged.

5.1.1 Traffic Management Plan

A Traffic Management Plan was prepared for the Town by external consultants in conjunction with Waterford County Council. It has been designed to ensure a more co-ordinated and effective approach to traffic management within the Town. It is envisaged that the existing street pattern, with possible modifications to the management of traffic flow and parking will form the basis for future traffic flows system in the Town. The existing streetscape is well maintained and any future engineering designs to improve the local traffic network should be uncomplicated and unobtrusive. Regard should be had to the protection of the Monument at the Monument Junction in the consideration of any traffic management proposals at this location.

Cyclist/Pedestrian Signage

5.1.2 Commuter Traffic

Figures taken from the 2011 CSO Census illustrate that the dominant mode of transport in Lismore is the car. The car accounted for 59.6% of all journeys to work with an average commute time of 24 minutes. It is noted that 22.3% of workers had a commuting time of in excess of 30 minutes.

In achieving a sustainable community, alternative modes of transport will be encouraged and promoted. To this end the Council is committed to ensuring high quality pedestrian and cycle routes in all new planning applications. All major planning applications within Lismore will be examined to assess the linkages to public transport, pedestrian and cycle routes and where it is deemed appropriate a detailed mobility plan may be requested.

5.1.3 New and Improved Roads

An east/west pedestrian/cyclist/vehicular connector road is proposed in the south of the Town as outlined in the Concept and Zoning Maps in this Plan. The construction of this route is imperative to the development of the Town and will allow traffic to filter into the existing street network (New St., Chapel St and Parks Road) without having to use the Town Centre, as at present. The proposed route of this road shall be reserved free from development. It should be noted that the final route for the east/west connector has yet to be finalised and the

route illustrated is indicative at this point and may be subject to change. The appended mapping also identifies the proposed Cappoquin/ Lismore Bypass route.

Objective INF 1
To implement the recommendation of the Lismore Traffic Management Plan over the lifetime of the Local Area Plan.

Objective INF 2
To provide for an East/West Connector Road to the South of the Town as indicated on the appended mapping.

Objective INF 3
To provide for the proposed Cappoquin/Lismore bypass to the south of the Town and to preserve the lands in the vicinity of the indicated route of the bypass.

Objective INF 4
To ensure that the Monument is afforded adequate protection from traffic in any further upgrading of the Monument Junction.

Objective INF 5
In light of the road proposals to the west of Lismore it is an objective of the Council to prepare a road redesign at the junction of the N72 Tallow Road and the L-1014 Local Road during the Plan period. This design shall be prepared in consultation with the National Roads Authority to ensure consistency of design with the Lismore to Cappoquin scheme.

5.1.4 Pedestrian and Cycle Routes


Cyclist Signage

Walking and cycling are environmentally friendly, fuel efficient and healthy modes of transportation that are highly accessible and sustainable alternatives to vehicular based transport. For the Town Centre to continue to thrive as the social and economic centre of Lismore, increasing priority shall be afforded to pedestrian routes as opposed to vehicular routes through the Town Centre. Good pedestrian routes are essential in areas that cater for a diverse range of activities such as retail, commercial services, housing and employment bases.

Smarter Travel – A Sustainable Transport Future (2009) is a new transport policy for Ireland covering the period 2009-2020. It sets out five key goals:

- To reduce overall travel demand;
- To maximise the efficiency of the transport network;
- To reduce reliance on fossil fuels;
- To reduce transport emissions; and
- To improve accessibility to transport.

The policy is aimed at reversing unsustainable travel patterns through the promotion of walking, cycling, car pooling etc. Furthermore the policy is focused on improving the environment and people's quality of life through the associated health benefits of sustainable modes of transport.

Cycle facilities shall be incorporated into the design and layout of developments schemes as appropriate including road schemes and development schemes in the Town in accordance with the National Cycle Policy Framework, Department of Transport 2009, and any subsequent documents to be released on foot of same which provide guidelines and standards.

Policy INF 1
To implement the smarter travel policy framework as produced by the Department of Transport and to encourage the sustainable creation of cycle and pedestrian friendly communities through the provision of cycle paths and other initiatives to curtail the dependency on private motor vehicles whilst seeking to minimise the depletion of the hedgerow resource that could potentially arise from cycle path provision.

Policy INF 2
Ensure that cycle lanes are provided throughout the Town, where possible on new roads and that designated cycle bays are provided for as part of new retail/commercial/office type developments.

Policy INF 3
To improve pedestrian linkages between the Mills Housing Estate and South Mall.

Objective INF 6
Require planning applications for residential, commercial, retail, community, educational and industrial developments to demonstrate the proposal's accessibility for pedestrians and cyclists. The Council will also seek the provision of appropriate, well-designed pedestrian ways for residential development proposals to link with amenities and facilities. Such proposals shall adhere to the Guidelines on Sustainable Residential Development in Urban Areas and Urban Design Manual (DoEHLG May2009).

Objective INF 7
It is the objective of the Council to support the policies of the *'National Cycle Policy Framework 2009-2020-Smarter Travel',* Department of Transport, April 2009 while ensuring that any environmental effects of the implementation of the policies are fully assessed and adequately mitigated.

Objective INF 8
It is the objective of the Council to promote the sustainable development of safe and convenient pedestrian and cycling facilities in the Town, to minimise the dependence on private motor vehicles, and to encourage an active and healthy lifestyle. New and upgraded road developments will be encouraged to integrate cycle lanes.

5.1.5 Parking

The existing park area adjacent to the Millennium Park and playground currently provides car and coach parking facilities to the many seasonal tourists to the Town. The design, layout and location of this parking area also improves the accessibility to the adjacent amenities and the wider Town. It is recognised that a second public car park adjacent to the Town Centre is required to augment the existing parking provision.

Free on-street parking is available throughout the Town. Parking on Chapel Street, close to the junction of Main Street and the area adjacent to Ferry Lane junction is discouraged because of the narrow width of the road carriageway.

Policy INF 4
To ensure the adequate provision of off-street car parking in Lismore to meet the needs of local residents, shoppers and businesses.

Policy INF 5
Ensure that commercial and industrial developments provide adequate number of parking spaces for vehicles, provision of loading bays and sufficient circulation for pedestrians, cyclists, motorists and delivery/ service vehicles.

Objective INF 9
To encourage the provision of short stay parking in both West Street and Main Street.

5.1.6 Public Transport

Public transport investment is crucial to sustainable development and a good quality living environment.

Public transport provides for alternative modes of transport, reduces overall trip generations and alleviates town centre congestion.

5.1.7 Bus Services

Bus Eireann provides a Sunday bus service to Waterford City via Cappoquin, Dungarvan and Kilmacthomas (i.e. Route 366). A private bus company provides a Saturday service to Cork City. There is a need for a formal bus stop/shelter.

5.1.8 Déise Link

The Déise Link Community Transport Service was established under the Rural Transport Programme in 2001. With the assistance of Waterford County Council, Pobal and the Department of Social Protection this service seeks to promote social inclusion through the provision of a door-to-door accessible and affordable rural transport service.

Déise Link provides a bus service from Lismore to Dungarvan on Wednesday, Friday and Saturday. In recognition of the importance of improving access to and from rural locations, the Council supports the extension of the Rural Transport Programme during the lifetime of the Plan.

DEISE LINK
WATERFORD COMMUNITY TRANSPORT

Policy INF 6
To support the Rural Transport Initiative and the provision of an integrated public transport system as a means of reducing social isolation and as a viable long-term sustainable public transport option.

Policy INF 7
To support and co-operate with public and private transport operators in the provision of an effective, attractive and sustainable transport service and in the development of key infrastructural requirements such as bus lay-byes and set-down locations in appropriate locations.

Policy INF 8
To support public and private bus operators in the provision of a well functioning, integrated public bus network, which enhances Lismore's competitiveness, encourages economic improvement, promotes balanced regional development and contributes to social inclusion.

5.2 Water Infrastructure

The provision of infrastructure is imperative for the continued sustainable development of Lismore Town. The provision of additional infrastructure should be compatible and concurrent with new construction so as to ensure that there is a systematic and planned approach to the provision of new services.

Policy INF 9
Ensure that the timing and location of providing new services and utilities are compatible and concurrent with new construction.

5.2.1 Water Supply

The LCB water supply scheme services the Towns of Lismore, Cappoquin and Ballyduff and the substantial hinterland in between. The LCB scheme is made up of interconnected sources and service storage comprising one surfacewater treatment plant (Lismore filters) and four groundwater sources (Ballyhane, Cappoquin Monument, Deerpark, Aglish Glencairn).

The primary source for Lismore Town and the hinterland to the west as far as Ballyduff is the Glenakeefe and Rough Glen Rivers. The raw waters from the Glenakeefe and Rough Glen Rivers are treated at Monamon Filter Beds (slow sand filtration, chlorination and fluoridation) and supply Lismore via a treated water storage reservoir located at Ballygalane (590m3, 97.93m TWL). There is also a boosted supply that serves the local rural area of Monamon. There is no yield test available for the Glenakeefe and Rough Glen Rivers. Current supply varies from 500-600m3/day.

A secondary source at Deerpark (chlorination and UV) supplies directly to the network south of Lismore. The Deerpark borehole supplies an average of 400m3/day directly into supply.

Issues associated with the Lismore scheme include elevated colour in periods of sustained rainfall, overtaxed capacity, inadequate final water storage, taste and odour problems. Alternative sources are required to provide capacity for future development and in the event of the temporary loss of the Glenakeefe and Owenashad river sources.

Consulting engineers have prepared:

- A strategic review of water supplies in West Waterford, identifying possible water sources in the West Waterford Area to resolve current source capacity and quality problems; and
- A preliminary report setting out proposals for new water infrastructure in the Stage 1 area.

The preliminary report concentrated on resolving current supply difficulties in the Stage 1 Area (which comprises the Lismore, Cappoquin, Ballyduff and Tallow areas). Waterford County Council regards the development of a major Regional Water Scheme for the west of the County as an important water supply strategic objective. However the overall regional scheme has not been approved by the Department. The current West Waterford Water Supply Scheme & Strategic Study in the Stage 1 area are considered to be interim steps towards the realisation of the County's overall strategic objectives.

Policy INF 10
Ensure adequate supplies of water for residential and other developments over the lifetime of the Plan.

Objective INF 10
Maintain a programme for upgrading and improving the water supply scheme in terms of quantity, quality, pressure, storage and reliability.

5.2.2 Wastewater Treatment

Lismore is located on a regionally important karst flow aquifer of high-extreme vulnerability rating to groundwater pollution. This highlights the need for proper sewage treatment in the locality.

The existing Lismore Sewerage Scheme consists of a combined collection network discharging to an extended aeration Wastewater Treatment Plant with discharge to the River Blackwater. The capacity of the treatment plant is nominally 3,000 p.e. at 3 DWF. However the secondary settlement tank can only accommodate 1800 p.e. at 6 DWF[1], which is the hydraulic load to the plant. The hydraulic load to the plant is problematic as a result of the lack of separate stormwater drainage in Lismore.

[1] Dry Weather Flow

The existing extended aeration plant is thus overloaded and requires additional capacity to provide adequate treatment for future development loads. It is proposed to upgrade the capacity to 3,000 p.e. in 2014. The existing plant is located in an old quarry site which affords no room for convention expansion. An additional site nearby is being acquired and stormwater attenuation and influent screening are proposed to ensure that only 3 DWF flows forward to the treatment plant.

Policy INF 11
To ensure adequate wastewater treatment facilities in Lismore to cater for the needs of current and future residents.

Objective INF 11
To upgrade the existing wastewater treatment capacity to approximately 3,000 p.e.

5.2.3 Surfacewater, Drainage Systems and Flood Control

It is essential for the efficient operation of the existing and proposed treatment plants to minimise the surfacewater contribution to the combined network. A stormwater collection system is required to facilitate transfer of surfacewater collection from the existing combined system and also for future development. A length of 3.5km of stormwater network is proposed which includes stormwater drainage for all main roads in Lismore Town. In addition, a significant combined network upgrade is also required to accommodate future flows and to minimise infiltration.

Changes in rainfall patterns and rises in sea levels resulting from climate change have increased the frequency of flooding incidents over the past number of years. The risk of flooding should be considered in all cases especially areas that are prone to flooding. The National Flood Hazard maps by the Office of Public Works identify the area surrounding Ballyrafter flats in Lismore as being susceptible to flooding.

The DoECLG/OPW '*Planning System and Flood Risk Management – Guidelines for Planning Authorities'* (2009) outline three key principles that should be adopted by local authorities and developers when considering flood risk. These are:

- Avoid the risk, where possible;
- Substitute less vulnerable uses, where avoidance is not possible; and
- Mitigate and manage the risk, where avoidance and substitution are not possible.

In order to inform preparation of the Draft Plan and SEA Screening land use zoning was cross checked with indicative flood risk mapping of the River Blackwater. There is no

encroachment of flood risk areas on land zoned for development within the Lismore Plan area. No zoning amendments were required as all development land is outside the indicative flood risk area of the River Blackwater. Figure 5.1 below details the Lismore Plan area in relation to the floodplain of the River Blackwater.

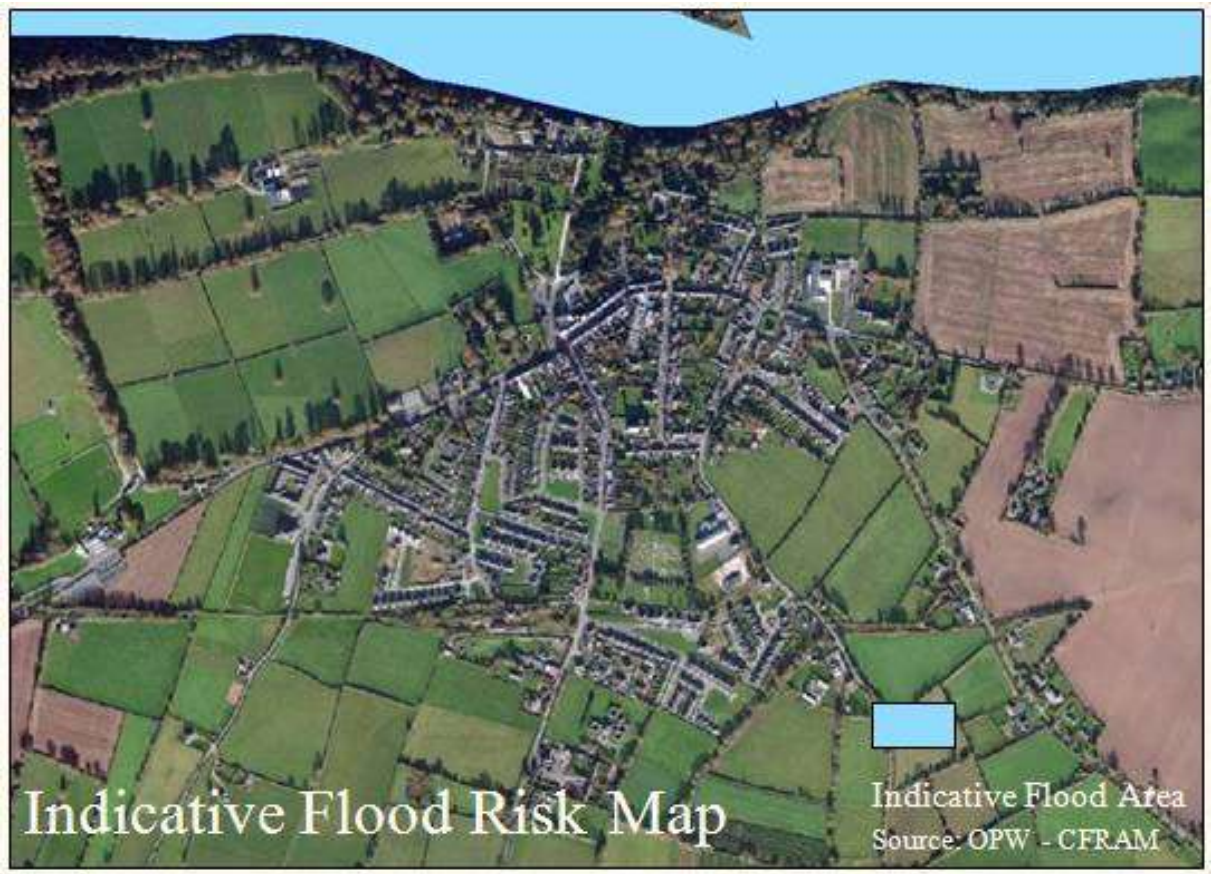

Figure 5.1: Indicative Flood Risk Map

In assessing the potential flood risk in Lismore the Planning Authority were also informed by the following:

- Floodmaps.ie – Records of previous flood events.
- Indicative assessment of existing flood risk under preliminary flood risk assessment.
- River Basin Management Plans and Reports.
- Topographical maps.
- GSI mapping.
- Liable to flood markings on the old 6 inch maps.
- Newspaper reports.
- Consultation with the Local Community.
- Local Authority knowledge & walkover surveys.
- Teagasc soil mapping.

Policy INF 12
To ensure that all new developments can be attenuated on site or to a nearby watercourse and shall not pose any risk of flooding to adjacent lands.

5.3 Waste Management

Waste management is one of the most challenging issues facing local authorities at present. Waterford County Council is committed to ensuring the safe and sustainable management of waste. The six constituent Local Authorities in the South East Region commissioned the development of the Joint Waste Management Plan in order to make provision for the effective management of the waste generated in the South East. The Plan is currently being reviewed in line with the revised regional structure. Waterford County Council together with a number of permitted private waste collection service providers operate a domestic waste collection service in the Lismore area. A Bring Centre which facilitates the disposal of glass & textiles is located at Townspark.

Refuse Collection Vehicle

5.4 Renewable Energy

The depletion of fossil fuels and their effects on the environment requires the development of renewable energy sources/alternative energy technologies on a local, County and Country wide basis. The Waterford Energy Bureau provides a range of energy management, energy conservation and renewable energy services to the general public, to businesses and to the Waterford Local Authorities. The Council is committed to the continued co-operation with Waterford Energy Bureau in the promotion of renewable energy.

The Planning and Development Regulations 2001 were amended in 2007 to provide planning exemptions subject to limitations for the construction and provision of micro-renewables such as domestic wind turbines, solar water heating, biomass boilers etc. Further amendments were made to the Regulations in 2008 which allowed for planning exemptions for micro-renewable forms of energy in industrial buildings and on agricultural holdings.

Policy INF 13
The Council will facilitate and promote the use of micro-renewable technologies in the generation of electricity where they will not have an adverse impact on residential amenities, biodiversity, water quality and landscape sensitivities. Screening for Appropriate Assessment will be carried out where required to ensure that there is no negative impact on the integrity (defined by the structure and function and conservation objectives) of any Natura 2000 site located at or adjacent to proposed site for micro renewable development and that the requirements of Articles 6 (3) and (4) of the EU Habitats Directive 92/43/EEC are fully satisfied.

Policy INF 14
To promote sustainable approaches to housing design and construction and encourage responsible environmental management in construction.

5.5 Climate Change

This Local Area Plan is the channel for the delivery of local area climate adoption policies. The Council's Climate Change Committee will implement mitigation and adoption measures, that will contribute to limit the environmental impact of climate change on a community which will include;

- Implementation of measures within the community that reduce the levels of green house gasses being emitted into the environment;
- The installation of infrastructure that caters for more extreme weather conditions including storms, rainfall events, river and coastal flooding;
- Design and install infrastructure to cater for any future risk of water shortages;
- Monitor and control invasive species; and
- Subject to available resources, continue to deliver bio-diversity measures to reduce the risk of possible extinction of vulnerable species.

The DoECLG published the *National Climate Change Adaptation Framework (Building Resilience to Climate Change)* in December 2012. This framework provides a mandate for local authorities and other agencies to prepare local adaptation plans (including mitigation) for climate change as part of development planning to be published by mid-2014.

Policy INF 15
The Council will continue to implement mitigation measures that reduce the emissions of greenhouse gases which are driving climate change**.** Such measures will continue to reduce the affects of global warming and meet national and international commitments.

Objective INF 12
The Council will continue to implement adaption measures that reduce the effects of climate change**.** Such measures will contribute to preparing local areas, to any possible changes of climate and habitat.

5.6 Telecommunications and Broadband

The development of a good quality communications and broadband network is imperative for attracting major business and industrial development to a Town. It will also facilitate individuals who may be afforded the opportunity to work from home. Both wireless and fixed line broadband are available in Lismore. In the consideration of proposals for telecommunication masts, antennae, and ancillary equipment developers will be required to submit details of:

- The potential for co-location of equipment on the existing mast infrastructure; and
- The visual impact of the proposed equipment on the natural and built environment, particularly in areas of sensitive landscape or cultural/historical importance.

The development of telecommunication masts and antennae in urban areas should be avoided where alternative locations are available.

Policy INF 16
The Council will facilitate proposals for the provision of telecommunication and broadband infrastructure and ancillary equipment subject to normal planning considerations having regard to the DoEHLG publication '*Telecommunications Antennae and Support Structures - Guidelines for Planning Authorities*' (1996) as revised by Circular Letter PL07/12 (*Telecommunications Antennae and Support Structures*).

Objective INF 13
It is the objective of the Council to encourage the clustering and co-location of telecommunication masts, antennae or ancillary equipment and more favourable consideration will be given to their location near existing similar type structures.

Objective INF 14

It is the objective of the Council to ensure that where permission is granted for telecommunication masts that it will generally be for a temporary period not exceeding 5 years. This will enable the Planning Authority to review the situation considering changing technology and the effect of the development on the amenities of the area. Subsequent applications may be for such longer periods as the Planning Authority may direct.

Objective INF 15

It is the objective of the Council to facilitate developers and utility providers in meeting the requirements for utility services such as telecommunications, gas and electricity. Pre-planning application discussions with providers of telecommunication and ESB structures are encouraged.

Objective INF 16

It is the objective of the Council to support the co-ordinated and focussed development and extension of broadband infrastructure throughout the County. To this end the Planning Authority will seek to ensure that there is ducting for broadband fibre connections:

a) Installed during the installation of services;
b) In all new commercial and housing schemes; and
c) During any work on roadways.