

Chapter 5 Transport & Infrastructure

5.0 Introduction

The population of Tramore in the 2011 CSO Census stood at 10,328 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 County. This Chapter examines the transportation networks in the Town and focuses on strategic improvements that can be made to ensure that Tramore 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 Tramore and outlines future requirements to ensure the orderly and planned development of the area.



Tramore Ring Road

5.1 Transport & Traffic

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

The increasing population of Tramore 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 42.1% 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

The Tramore Traffic Management Plan will be reviewed 1 year after the completion of the Riverstown Relief Road. This time period is to allow new traffic flows to be established and so that the reviewed plan will best meet the transport needs on the Towns revised road network. The Community Policing Forum also provides up to date information on traffic issues in the Town.



Cyclist/Pedestrian Signage

5.1.2 Commuter Traffic

Figures taken from the 2011 CSO Census illustrate that the dominant mode of transport in Tramore is the private car. The car accounted for 74.3% of all journeys to work with an average commute time of 21 minutes. It is noted that 10.2% 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 Waterford County Council is committed to ensuring high quality pedestrian and cycle routes in all new planning applications. All major planning applications within Tramore 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

The Tramore Ring Road was opened in January 2005 and has alleviated substantial volumes of traffic from the more congested Town Centre areas. The Riverstown Relief Road is to be completed during the Plan period. For all other proposed routes please refer to the appended maps. Please note that these routes are indicative only and may be subject to change.



Riverstown Relief Road

It is an objective of this Plan to place a road reservation along the local road serving the Monang/Knockenduff area to facilitate future development. One off dwelling houses shall be precluded in this area as it may hamper future road widening and realignment. This road

reservation shall in turn service a substantial land bank that has been zoned as a strategic residential reserve area.

In relation to the Commercial land zoning to the north of the Riverstown Relief Road and in the Townland of Crobally Upper, the Planning Authority requires that any future development of the site must be accessed from the Waterford Road to the west.

5.1.4 Pedestrian and Cycle Routes

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 Tramore, 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.



Cyclist Signage

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 development 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.

Approximately 1.2 km of pedestrian/cycle routes will be included within the amenity grassland area (i.e. former landfill area) during the Plan period. A Cycle and Walking Strategy is currently being prepared for Tramore and once finalised will assist in the delivery of a network of paths and cycleways within the Town with associated infrastructure that will assist in promoting more sustainable transport options than the private car.

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 sustainable 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.

Objective INF 1

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 or avoided.

Objective INF 2

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.

Objective INF 3

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 where appropriate of 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 4

That the amalgamated school site at Ballycarnane is integrated into the surrounding area through high quality vehicular, pedestrian and cyclist paths.

Objective INF 5

To improve the access between Tramore and Waterford Airport and to upgrade the junction of the Glen Road and the Main Waterford / Tramore Road.

5.1.5 Parking

During the last Plan period the introduction of the one way system in the Town Centre under the Town Centre Traffic Management Scheme resulted in an increase in the parking available in this area.

The Council proposes public car park developments, subject to funding availability, during the Plan period in Tramore (these include the upgrade of existing car parks and the provision of new car parks). The Council will use car parking management options such as short term car parking, limited period free parking etc, to optimise the use of public car parking spaces, where appropriate.

Policy INF 3

To ensure the adequate provision of off-street car parking in Tramore to meet the needs of local residents, shoppers and businesses and also the provision of universally accessible parking spaces at appropriate locations throughout the Town.

Policy INF 4

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

Objective INF 6

Investigate the feasibility of a park and ride facility on the outskirts of the Town.

Objective INF 7

Facilitate the provision of a helipad at a suitable location within the Town or its environs subject to an assessment of its impacts on Tramore Backstrand SAC and SPA.

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 Public Bus Services

Bus Eireann provides a regular daily service from Waterford City to Tramore and the service is augmented during the peak season to accommodate the additional numbers of commuters/visitors. Inter County, Regional and National bus services from Tramore are via Waterford City where connections are provided

The provision of an IMP type bus service in the Town would be greatly welcomed. An IMP service would allow passengers to go from the promenade area up to Church Street, thus connecting the upper and lower parts of the Town. An IMP type service would also mean that marginalised groups of society, elderly people or people with mobility impairments would be able to access all areas of the Town without great difficulty.

5.1.8 Private Bus Operators

There are a number of coach, mini-bus, taxi and cab service providers in the Town that provide private non-scheduled services for Tramore. To assist and compliment the private and public operators which respond to local travel needs, the Council will seek to enhance the facilitation of new bus stop, taxi and shelter infrastructure in the Town and the appropriate co-locating of transport service provision at these locations will be encouraged by the Council where practicable.

5.1.9 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 weekly service from Tramore to Waterford City via Cheekpoint. In recognition of the importance of

improving access to and from rural locations, the Council supports the extension of the Rural Transport Initiative during the lifetime of the Plan.

Policy INF 5

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 6

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 7

To support public and private bus operators in the provision of a well functioning, integrated public bus network, which enhances both Tramore's and Waterford'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 Tramore 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.



Tramore Wastewater Treatment Plant

Policy INF 8

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

5.2.1 Water Supply

Tramore is served by two water supply schemes. The East Waterford Water Supply Scheme (Adamstown water treatment plant) serves the majority of the Town and the elevated locations are served from the Carrigavantry water supply scheme.

The East Waterford Water Supply Scheme (EWWSS) is a strategic piece of County Waterford's infrastructure and is the largest water supply scheme in the South East Region. The EWWSS serves Waterford City and the entire County to the east of Kilmeaden. The EWWSS is a state of the art facility that comprises multiple sources and multiple treatment processes that consistently produces water that meets all European standards.



East Waterford Water Supply Scheme

There are two lake sources (Ballyshonock and Knockaderry impoundments) and two river sources (River Clodiagh and River Mahon). Treatment comprises the following stages; raw water balancing, coagulation, flocculation, rapid gravity filtration, pH correction, chlorination and fluoridation. The site also has sludge treatment. Final treated water is pumped to the following storage reservoirs; Sporthouse reservoir (2,500m³, 106.3m TWL) and Ballydrislane reservoir (10,000m³, 69.3m TWL). A SCADA system continuously monitors all water quality and performance parameters from source to distribution.

Various improvements between 2005 - 2010 have increased the capacity of the EWWSS to 56,000m³/day. This capacity is adequate to meet the current and future needs of Tramore Town. The Carrigavantry treatment plant is supplied with raw water from impoundments at Ballyscanlon and Carrigavantry. Treatment comprises the following stages; rapid gravity filtration, pH correction, chlorination, UV and fluoridation. Treated water from Carrigavantry is stored at an on-site reservoir (682m³, 113.12m TWL) and the higher levels of Tramore Town are served from this reservoir. The output of this scheme is limited by source and treatment capacity to approximately 1,000m³/day.

Policy INF 9

To liaise with the IDA/Enterprise Ireland in the provision of water for industrial purposes.

Policy INF 10

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

Objective INF 8

Maintain a programme for upgrading and improving the water supply scheme, particularly those water supplies listed on the EPA's Remedial Action List in terms of quantity, quality, pressure, storage and reliability.

5.2.2 Wastewater Treatment

The existing Tramore Sewage System is a combined system, which incorporates storm overflows. The majority of the sewage in Tramore discharges to the main pump station at the eastern end of the Promenade. This includes the Newtown area, which is served by the Cove pump station which in turn pumps sewage into the Town's gravity sewer network. From the Promenade pump station, the sewage is pumped to the new treatment plant at Riverstown. There is also a new pump station at Riverstown serving the northern section of the Town.

Construction of the new Wastewater Treatment Plant at Riverstown was completed in 2008. This plant provides treatment of effluent to E.U Urban Waste Water Treatment Directive standards and EC and National Bathing Water Quality standards. The design treatment capacity of the plant is for 20,000 population equivalent. The existing year round population equivalent is 12,500 persons and the plant has the capability of treating up to 20,000 p.e during the peak summer period. The second phase of the Tramore Sewerage Scheme upgrade is proposed to commence during this Plan period and will consist of increased capacity at the Wastewater Treatment Plant, the separation of foul and storm flows as well as improved stormwater attenuation.

Policy INF 11

To endeavour to facilitate the orderly growth of the urban area and to preserve coastal amenity by providing sewerage of those areas delineated for development under this Plan.

Objective INF 9

The lands to the north of the Garraun stream are currently unserved. The development of these lands will require the provision of a new sewer along the northern banks of the stream and upgrading of the sewer along the Glen Road. The development of this overall area which is the subject of a Master Plan will be dependent on a public-private-partnership approach to infrastructure provision in the area.

5.2.3 Surfacewater, Drainage Systems and Flood Control

The Garraun Stream has a limited capacity to cater for additional surfacewater run-off from adjoining lands. Any additional development north of the Garraun stream will have to be served by this water course. However prior to any further development in the catchment of the Gaurran stream a review of the 2001 Flood Studies Report will have to be commissioned to examine the flooding issue and the viable solutions and mitigation measures that may need to be implemented. Any attenuation measures should be specifically modelled as part of the catchment assessment and the success of such measures should be indicated. The report should include an interactive model so that all development proposals can effectively be checked prior to permission to ensure they do not aggravate flooding. The Council are committed to undertaking such a Flood Studies Report of the Garraun Stream during the life time of this Plan.

The DoECLG/OPW ‘*Planning System and Flood Risk Management – Guidelines for Planning Authorities*’ (2009) outline 3 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.



Figure 5.1: OPW-CFRAM Indicative Flood Risk Mapping

In fulfilment of the requirements of the EU “Floods” Directive (2007/60/EC) and under the CFRAM Programme for the South East, the Office of Public Works (OPW) carried out an initial Preliminary Flood Risk Assessment in 2011 to identify Probable and Possible Areas for Further Assessment (AFAs) or Individual Risk Receptors (IRRs). The PFRA was based upon information on past flood events, OPW and local authority knowledge of flood risk areas and analysis of available and predictive flood hazard. Review of the *South Eastern CFRAM Study Flood Risk Review - Final Report* indicates that areas along the Tramore Promenade are susceptible to coastal flooding. Site inspection and coastal flood hazard mapping produced through the Irish Coastal Protection Strategy Study indicate a 0.5% AEP tidal event would affect 15 residential and commercial properties in the Town. This flood risk has merited the inclusion of Tramore & Environs in the list of areas for further assessment in the CFRAM’s study. For these risk areas, flood risk maps and flood hazard maps will be drawn up by 2014. Flood Risk Management Plans (FRMP’s) will be developed by 2016. Consultation with indicative flood risk mapping informed review of land use zoning in the preparation of the Tramore Local Area Plan and flood risk areas in the main coincide with areas zoned for Open Space minimising the risk of flooding to development land.

In assessing the potential for flood risk in Tramore the Planning Authority also had regard to the following:

- Floodmaps.ie – Records of previous flood events (e.g. storm in December 1989 and also February 2006 ESBI meeting minutes & Record rainfall in November 2006).
- The Irish Coastal Protection Strategy Study – Phase 3 – Draft Mid-Range Future Scenario Flood Hazard Maps.
- 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

The Council will require compliance with best practice guidance for the collection, reuse, treatment and disposal of surface waters for all future development proposals. Development proposals must demonstrate adequate water conservation, water quality protection, and surfacewater run-off rate regulation including SUDS measures where relevant and appropriate to prevent the increase of flooding issues in the catchment.

Objective INF 10

To prepare a Flood Studies Report for the lands within the catchment of the Gaurran Stream.

Objective INF 11

To implement the provisions of a Flood Management Plan for Tramore and environs as prepared under the SE CFRAM Study.

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. Tramore landfill which is situated at the eastern end of the Promenade was closed in 2005 and has since been remediated by Waterford County Council in compliance with EPA licensing standards. It is proposed to develop the site as a public amenity area during the period of the Plan. Waterford County Council together with a number of permitted private waste collection service providers operate a domestic waste collection service in the Tramore area. Two Bring Centres which facilitate the disposal of glass & textiles are located at the eastern end of the promenade and at the carpark of Supervalu on Priests Road.



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 technology on a local, County and Country wide basis.

The “*House of Tomorrow Development*” at Crobally in Tramore includes 20 social housing units which contain energy efficient equipment and is an example of how through the use of renewable technologies the energy efficiency of residential dwellings may be substantially improved. The Council continues to encourage such energy efficiency in all public and private housing. Consideration shall be given to the use of solar panels, domestic wind turbines, geothermal heating etc in appropriate instances.

The Waterford Energy Bureau which is based in the Council offices in Tramore provide 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 the 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 Waterford 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. 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) and to more recent planning legislation (i.e. as revised by Circular Letter PL 07/12 (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.