

SECTION FOUR
INFRASTRUCTURE

Chapter 8

SOCIAL AND COMMUNITY INFRASTRUCTURE

8.1 Introduction

The provision of accessible social and community infrastructure contributes to the quality of life for all and it is important that such facilities also be provided in tandem with the development of new dwellings and neighbourhoods. The Planning and Development Act requires that Development Plans include objectives for the integration of the planning and sustainable development of a respective area with the social and community needs of its population. The increased emphasis on the provision of social and community infrastructure has been emphasised by the DoE through the production of guidance documents relating to childcare, school provision and urban design, which have in turn been further expanded upon, through publications and work carried out by the Planning and Community & Enterprise Sections of Wicklow County Council.

8.2 Community Development

The term “community development” refers to a complex and broad range of actions and measures involving a wide range of practitioners and bodies with the common aim of improving various aspects of local communities. There are however two key strands to the development of “sustainable communities”;

- (1) Facilitating communities in developing the skills, capacities and projects needed to enable them to have a greater say in the management of their own futures;
- (2) Facilitating access to the goods, services and power structure within society for all, and particularly for those that are marginalised and powerless (social inclusion).

Land use planning plays the following roles in delivering these aims:-

- (1) Facilitating the delivery of community projects, through:
 - The reservation of land for community uses in the plan area;
 - Managing the expansion of residential development commensurate with the community facilities available;
 - Requiring the delivery of new community facilities as part of development proposals;
 - Co-operating with other services providers in the delivery of new facilities.
- (2) Facilitating improved physical access to goods and services through
 - Directing new facilities to suitable locations and in particular, to the locations where people live or locations that are easily accessible by public transport, cycle or foot;
 - Requiring all new facilities to be accessible and useable by all.
- (3) Facilitating an overall improvement in the quality of the built environment, which contributes substantially to our perception of places and communities.

8.2.1 Community Development Objectives

CD1 To ensure sufficient zoned land is available to meet the community needs of the projected population of the plan area over the plan period.

CD2 The Council will promote and facilitate the delivery of community facilities in accordance with the Hierarchy Model of community facilities prepared under Strand 3 of the Development Levy Scheme (under Section 48 of the Planning and Development Acts).

CD3 Unless otherwise specified by the Planning Authority, new significant residential developments¹ will be required to carry out a social infrastructure audit, to determine if social and community facilities in the area are sufficient to provide for the needs of the future residents. Where

¹ This is determined in the case of Wicklow – Rathnew to be any application in excess of **200 housing units** or smaller developments that will accumulate to be part of larger future developments.

deficiencies are identified, proposals will be required to either rectify the deficiency, or suitably restrict or phase the development in accordance with the capacity of existing or planned services.

8.3 Social Infrastructure

The provision of 'social infrastructure', in the form of buildings, facilities, clubs and the means of accessing and using services, is necessary for the development of sustainable communities. The purpose of such infrastructure is both to provide a service and also to promote community cohesion and community identity and in doing so combat social isolation and alienation. A wide variety of facilities are required in order to have a functioning and developing society, and one's use of facilities will depend on a range of factors including age, family structure and physical ability. Essentially there are four broad categories of facilities:-

- (1) Those providing education and development, including primary, secondary and third level schools and colleges and vocational or training centres (Montessoris and pre-schools are addressed under 'childcare');
- (2) Those providing physical and mental care and development, such as health services, nursing homes, childcare and pre-schools;
- (3) Leisure and recreational facilities including community / youth centres, youth cafes, indoor halls, dance / gymnastic studios, playing pitches, courts etc;
- (4) Cultural facilities, such as arts centres, theatres, libraries and places of public worship and burial grounds etc.

8.3.1 Education and Development

Education and training have a key role to play in all three dimensions of 'sustainable development' - environmental, economic and social. It is widely recognised as a key component of a competitive economy and a vibrant society.

The Council seeks to create an environment in which everyone can develop to their full potential to enable them to participate in and contribute to all aspects of social, economic and cultural life.

Primary Education

The population allocation to Wicklow-Rathnew by 2022 is 24,000 persons. The Department of Education advises that 12% of the population at any time is of primary school going age. Therefore this plan will make provision for 2,880 school places (current equivalent of 96 classrooms).

At present, there are **52 permanent classrooms** in the settlement as follows:

Scoil an Choroine Mhuire	16 classrooms
Padraig Naofa BNS	16 classrooms
Wicklow 2 NS (Glebe)	8 classrooms
St. Ernan's BNS	4 classrooms
SN Naomh Iosef	4 classrooms
Wicklow Montessori	4 classrooms

There are currently 2 schools in temporary accommodation as follows:

Gaelscoil Chill Mhantain	8 classrooms
Wicklow Educate Together	8 classrooms

Therefore this plan must make provision for 44 additional permanent classrooms.

Permission has already been granted for a 32 classroom primary school in Merrymeeting, but this will only generate 24 additional classrooms as it is intended that St. Ernan's BNS and NS Naomh Iosef will relocate to this new school.

Therefore the remaining shortfall that must be planned for is 20 classrooms.

Secondary Education

There are currently three post primary schools in Wicklow Town and its environs, with a 2011/2012 attendance of 1,553 students and a capacity of 1,940 students². The Department of Education estimates that 8% of the population at any time is of secondary school going age, however the current secondary population in the settlement as a percentage of the population of Wicklow – Rathnew is closer to 12%, which reflects the fact that secondary schools in the settlement have a wider catchment than the immediate area. In this regard, this plan shall endeavour to provide for sufficient zoned land for the delivery of up to 2,280 secondary school places by 2019 and 2,880 places by 2022.

Therefore by 2019 there may be a shortfall of 340 places and a shortfall of 940 places by 2022 compared to current capacities.

In order to ensure that sufficient opportunities and choices will be available to develop additional primary and secondary classrooms, this plan shall designate the following sites as potential locations for new schools:

Location	Site size	Site capacity
Action Area 2	1.6ha	16 classrooms primary or 250 pupil secondary
Former girl guides site	2.8ha	32 classrooms primary or 500 pupil secondary ³
Ballynerrin – Marlton Road	3.6ha	Potential school campus for 16 classrooms primary and 250 secondary OR 750 pupil secondary

It should also be noted that the relocation of the De La Salle and the Abbey College secondary schools out of the town centre sites to the new secondary school at Burkeen may provide an opportunity to develop one or both of these sites for school use.

Other lands zoned CE in this plan also provide opportunities for the expansion of existing schools or indeed new build schools. Furthermore, Objective CD3 above also requires that where school capacities are found to be inadequate to accommodate significant new development, the developer will be required to address the deficiency, which may involve setting aside residentially or employment zoned land for further school development or existing school expansion. In this regard, the development of schools will be allowable generally in other zones as well as the CE zone.

Third Level Education

Wicklow County Campus is the County's third level institute, located in the former Clermont College in Rathnew. Clermont Campus is a joint venture between Wicklow County Council and the Institute of Technology Carlow. The Strategic Plan adopted by Wicklow County Council for Wicklow County Campus is to develop it as a Centre of Excellence in Enterprise, Education and Innovation in County Wicklow and to act as a catalyst for Economic Development in the County. Higher education courses and training seminars are being provided at the Campus with student numbers increasing annually. This institute is also supported with additional adult education services that are provided by the VEC.

Education Objectives

- ED1** To co-operate with the Department of Education & Skills, the Vocational Education Committee for Co. Wicklow and school management boards in the provision of school places.
- ED2** To promote and facilitate the development of facilities that provide for linkages between schools types. For example, particular encouragement will be given to primary and secondary school campuses, the linking of pre-school services with primary schools and the linking of secondary schools with vocational training facilities.

² In 2012 Dominican College has a capacity of 540 female students, Colaiste Chill Mhantain has a capacity of 1,000 students and East Glendalough School has a capacity of 400 students.

³ The DES currently recommends a minimum site size of 3.1ha for a 500 pupil secondary school

- ED3** Where lands are zoned for employment use, to promote and facilitate the development of employment training facilities (privately and/or publicly funded).
- ED4** Where practicable, education, community, recreational and open space facilities shall be clustered. However schools shall continue to make provision for their own recreational facilities as appropriate.
- ED5** To promote the provision of dedicated facilities for adult and community education in recognition of the growing demand for life-long learning opportunities and the perceived shortage of such facilities at present.
- ED6** To promote the use of education facilities after school hours / weekends for other community and non-school purposes, where possible.

8.3.2 Health, Care and Development Facilities

Health

A number of public, voluntary and private agencies are responsible for the provision of healthcare facilities within the plan area, with the Health Services Executive being the primary agency responsible for delivering health and personal social services.

Health Objectives

- HC1** To facilitate the development of healthcare uses at suitable locations, in liaison with the appropriate health authorities. Health facilities will be considered on appropriately zoned lands subject to:
- The location is readily accessible to those availing of the service, with a particular presumption for facilities close to services. Locations distant from services will not generally be considered except where it can be shown that the nature of the facility is such that it demands such a location;
 - The location is generally accessible by means other than private car, in particular by public transport services, or by walking / cycling;
 - The location is accessible to those with disabilities.
- HC2** To support the establishment of centres of medical excellence, hospices, respite care facilities or facilities for those with long term illness.
- HC3** To allow for the change of use of all or part of an existing dwelling in a residential zone to health care usage, subject to normal planning considerations, paying particular regard to car parking availability, impacts on traffic flow and obstruction and impacts on residential amenities.

Residential and Day Care Facilities

Having regard to the 'ageing' of the Irish population, in addition to health care facilities, there is a growing need for the provision of specific residential and day care facilities for the elderly. The Council recognises that the provision of residential / day care and nursing homes is an essential community requirement within the plan area.

A number of agencies are active in the plan area providing residential and day care services to those with physical or intellectual disabilities. The Council recognises the special services provided by these bodies and aims to facilitate them wherever possible.

Residential and day care facilities can take many forms, ranging from day time activities / services to care / nursing homes, to assisted living units to independent (but supervised) living units and it is not therefore always possible to craft policies that will address all development types. All applications for development will be considered on their merits with particular regard to their location and the type of service being provided.

Residential and Day Care Objectives

- NH1** To encourage the development and improvement of new and existing residential and day care facilities in appropriate locations located close to shops and other community facilities required by the occupants and easily accessible to visitors, staff and servicing traffic.
- NH2** 'Retirement villages', made up of a number of independent housing units, with limited / no on site care facilities will be required to locate on residentially zoned lands.
- NH3** Edge of centre locations at the fringe of the plan area (e.g. SLB zone) will only be considered for residential or day care facilities where:
- There are good vehicle and pedestrian linkages available to town facilities;
 - The site would not comprise an isolated, stand alone development;
 - The design and scale of the facility is reflective of the semi rural location.

Childcare and Preschool Facilities

The provision of childcare and preschool facilities is recognised by the Council as a key piece of social infrastructure enabling people to play a more active role in society, particularly in accessing employment and education. Childcare services range from childminding a small number of children in a private home, to pre-schools and crèches. A large number of childcare facilities now provide a full range of services from caring for newborns to pre-school and Montessori type education. The DoE guidelines on childcare require the provision of 20 childcare places for every new 75 housing units granted permission.

Childcare Objectives

- CC1** To facilitate the provision of childcare in a manner which is compatible with land-use and transportation objectives and adheres to the principles of sustainable development.
- CC2** To require the provision of childcare facilities in all residential developments comprising 75 houses or more (including local authority and social housing schemes). In accordance with Department of Environment guidelines, childcare places shall be provided at a ratio of 20 places per 75 residential units, having regard to cumulative effects of permitted development, (unless it can be demonstrated that having regard to the existing geographic distribution of childcare facilities and the emerging demographic profile of the area that this level of childcare facilities is not required). Without substantial cause, it is the policy of the Council not to allow a change of use of these premises within five years.

8.3.3 Leisure and Recreational Facilities

The types of leisure and recreational facilities provided/required vary greatly from person to person ranging from active to passive activities. The Council recognises this fact and aims to provide for adequate leisure and recreational facilities throughout the plan area, which are capable of meeting the requirements of the resident population.

Children's Play Facilities

In addition to childcare facilities, pre-schools and after school services (dealt with previously) children also require opportunities to socialise, play and exercise. Wicklow Local Authorities through the Office of Community & Enterprise has responded to this need by preparing a Play Policy for County Wicklow. The purpose of the Play Policy is to change the culture of thinking on play and provide more opportunities for children to play. The policy makes a clear commitment to play as a right and to ensuring that children and their needs are considered when it comes to policy making and that provision is made to meet their needs.

Objectives

- CP1** To facilitate opportunities for play and support the implementation of the County Council Play Policy and its objectives, including the collection of development levies.
- CP2** In all new significant residential development ⁴, the developer shall provide, in the residential public open space area, a dedicated children's play zone, of a type and with such features to be determined following consultation with the Local Authority.
- CP3** All new estates, streets, open spaces/parks and community facilities shall be designed with the needs and safety of children as a priority.
- CP4** Subject to safety considerations, natural features (trees, streams etc) shall be retained in new developments.

Facilities for Teenagers and Young Adults

Many teenagers and young adults feel disenfranchised in society, particularly with regard to the lack of facilities provided specifically to meet their needs. These youths are too old for playgrounds and while many are active in sports clubs, there is still a lack of facilities for socialising and relaxation. Depending on the age, there are a number of facilities that are considered attractive to teenagers and young adults including Mixed Use Games Areas (MUGAs), which would typically provide a hard surfaced area allowing for basketball and other hard court sports, skate parks, youth clubs and Internet cafes.

Objectives

- TY1** In accordance with Objective CD3, where a deficiency in facilities for teenagers / young adults is identified in an area, the developer of any significant new residential estate shall submit proposals to address the deficiency.
- TY2** All new 'neighbourhood parks' or 'active open space' zones shall include a MUGA of a size and nature to be following consultation with the Local Authority.
- TY3** New community buildings / facilities shall be designed to facilitate the operation of youth clubs and youth services (see Objective CM2 to follow).

Community Centres

Community centres provide an important function for all groups in society, by providing for an indoor space for active recreation and for meetings / club use. While many 'outdoor' sports clubs also have indoor spaces, these many not be suitable for non-sport activities such as support group meetings, bridge clubs, parent-and-baby groups etc. In Ireland there is a particular dependence on the use of function rooms in hotels and public houses for club or meeting use, which are similarly not often ideal in design or size.

Objectives

- CM1** In accordance with Objective CD3, where a deficiency in indoor community space is identified in an area, the developer of any significant new residential estate shall submit proposals to address the deficiency.
- CM2** New community buildings / facilities shall be multi – purpose, designed to facilitate a wide range of uses including active uses (e.g. basketball, badminton, gymnastics / dance, martial arts etc) and meeting / club use, they shall be inclusive, accessible and cater for all ages.

⁴ This is determined in the case of Wicklow – Rathnew to be any application in excess of **200 housing units** or smaller developments that will accumulate to be part of larger future developments.

Sport Facilities

In addition to the Play Policy, Wicklow Local Authorities have also developed a Sports & Recreation Policy. This policy recognises the importance that sport and recreation contributes to the quality of life of individuals, communities and the County as a whole. It provides a strategic approach, which includes the identification of deficiencies, needs and priorities and the inclusion of underpinning principles of social inclusion and sustainable development framework. Its implementation will be carried out in partnership and co-operation, to enable all residents of the plan area to have equal access to sport and recreation facilities and opportunities for participating in the sport or recreation of their choice.

Objectives

- SR1** To contribute to the improvement of the health and well being of the inhabitants of the plan area and to facilitate participation in sport and recreation.
- SR2** To be guided by the Sports & Recreation Policy in the provision and expansion of sport and recreation opportunities in the plan area. In addition the policy will inform the development levy scheme for community facilities, in particular the provision of sport and recreation facilities.
- SR3** Facilities for sports shall normally be located close to the population, on designated Active Open Space land. All efforts should be made to locate new sports facilities close to existing community facilities, schools or areas of dense residential development. The Council may consider providing sites for these purposes or may be prepared to make financial or other assistance available, subject to reasonable access being made available to the public and to reasonable safeguards for the continued use of the land as open space.
- SR4** The redevelopment for alternative uses of open space and recreational lands whether owned by private recreational clubs or publicly owned, will normally be resisted by the Council unless suitable alternative recreational facilities can be provided in a convenient location.
- SR5** The development of new sports or active open space zones shall be accompanied by appropriate infrastructure including car parking and changing rooms.

8.3.4 Cultural Facilities

Cultural facilities are places for the creation, production and dissemination of culture and include buildings and cultural sites.

Arts

The Arts create opportunities for the cultural development of all the community. In addition it offers all the community, young, old and minority groups, a creative outlet and an alternative to sport and active recreation.

In order to provide for the existing and future development of the Arts in County Wicklow the Council has developed the Wicklow County Arts Plan. A number of objectives and actions have been identified in the Arts Development Plan and these will be reflected in increased resources and support to the arts community from Wicklow Local Authorities, Statutory Agencies, Local Development Agencies, the private sector and the wider community.

Libraries

The purpose of the public library is to support the community's needs for education, information, recreation, arts and culture. The public library is a publicly funded resource providing a cost-effective means to equity of access. The library is regarded as a service that promotes social inclusion in providing public access to the Information Society. The library is a means to ensure support for literacy, independent learning and distance education.

Places of Worship and Burial

In many communities, churches, burial grounds and other places of worship form a focal point for the local population and often provide not only a religious service, but also meeting places and other cultural services.

Objectives

- CA1** To maximise the opportunities for the Arts and support the implementation of the Wicklow County Arts Plan and its policies.
- CA2** To encourage and support the creation and display of works of art in public areas, including appropriate locations within the streetscape, provided no unacceptable environmental, amenity, traffic or other problems are created.
- CA3** To support the implementation of the Wicklow Library Development Plan.
- CA4** To facilitate the development of new, improved or expanded places of worship and burial grounds at appropriate locations in the plan area, where the demand for the facility has been demonstrated.

8.3.5 Parks and Open Spaces

Open Spaces are vital part of the urban environment. Open space amenities create benefits not only for the enhancement of the quality of life of residential areas but also provide opportunities for recreational activities and for nature conservation through connecting green spaces. The planning process plays a vital role in ensuring that existing parks and open spaces are protected and enhanced. In addition it is key that appropriate, high quality additional parks and open spaces are delivered as new residential areas are created and the population increases. Maps 8.1 and 8.2 indicate the existing and potential future open spaces and green networks in Wicklow town.

Open space can take a number of forms, with some use types overlapping:

- (1)** Private open space – open space owned and / or dedicated to use of single individuals or small groups for example private gardens, terraces, yards, balconies or shared private spaces in apartment developments;
- (2)** Residential open space – space generally provided in housing developments, that is public in the sense that there are no barriers to access, but its function is to provide for passive and active use by the residents of that development;
- (3)** Public open space – space that is open to general public use, which can be further divided into active and passive public open space:
Passive POS: Squares and civic spaces, picnic areas, walkways, parks, greenways etc
Active POS: Playing fields, hard surfaced courts, MUGAs etc.
- (4)** An emerging new form of open space is the use of land for allotments. Allotment gardens allow a number of people to cultivate their own vegetables in individual plots/land parcels on lands owned by another private individual or body. The individual size of a plot/parcel ranges between 200-400sqm and often the plots include a shed for tools and shelter. The individual gardeners are usually organised in an allotment association which leases the land from the owner who may be a public, private or ecclesiastical entity, provided that it is only used for gardening (i.e. growing vegetables, fruits and flowers), but not for residential purposes.

Open Space

In accordance with the County Sports and Recreation Policy, active open space should be provided for at a rate of 2.4ha per 1,000 population. In this plan area for a target population of 24,000, this equates to 57.6ha, to be divided as follows:

- 38.4ha of outdoor sports areas
- 4.8ha of equipped play areas
- 14.4ha of casual play areas

There is currently:

Table 8.1 Open Space

	Location	Area	Total	Deficiency
Outdoor sports clubs	St. Patrick's GAA	3.3	16.5	21.9
	Rathnew GAA	3		
	Wicklow Rovers AFC	1.3		
	Wicklow Town AFC, Finley Park	0.76		
	Rathnew AFC	2.3		
	Wicklow Rugby Club	2		
	Wicklow Tennis Club	0.25		
	Pitches at Dominican Convent	2.4		
	Pitches / courts at Colaiste Cill Mhantain	1.25		
Equipped play areas	Park St. Laurence's Road	0.9	0.9	3.9
	Ball Alley	0.023		

Wicklow Golf Club also occupies a major land bank of 38ha.

While the only designated casual park is that on St. Laurence's Road, there are many areas where casual recreation takes place in all parts of the settlement such as:

- residential open spaces available in most housing areas
- open areas around the Murrough, around the Black Castle and the beach

Therefore it is an objective of the plan to:

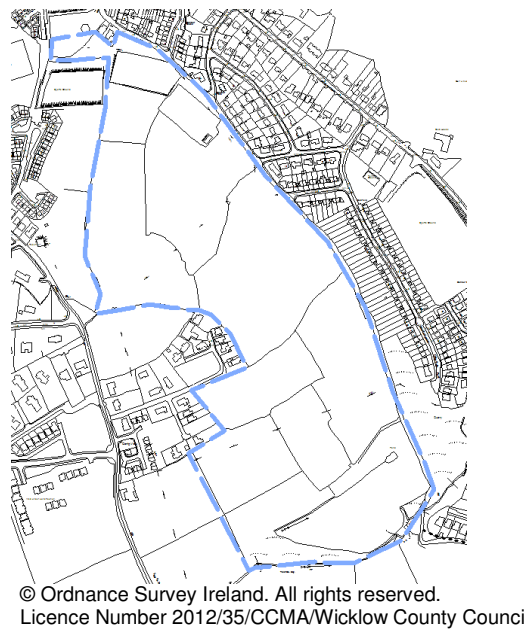
- seek the delivery of two major sports grounds in AA1 and AA2 totalling c. 25.8ha, facilitate the extension of sport facilities at Wicklow Rugby Club on surrounding lands of c.4.5ha, as well as substantial areas of passive open space to be developed as landscaped parks (some of which may also be suitable for more 'active' uses such as outdoor gyms, playgrounds and MUGAs)
- develop the concept of 'greenroutes' which will allow for walking / cycling etc and in particular, to prevent development along river / stream corridors (see maps 8.1 and 8.2)
- require any development proposals for the Murrough Opportunity Area to contribute to the enhancement of open spaces in the Murrough area
- require the delivery of new playgrounds in any large scale housing development
- Support initiatives in association with landowners, recreational users and other stakeholders to improve the management of existing walking trails and amenity areas along the coast.

Open Space Objectives

- OS1** To encourage the provision of open space for both passive and active recreation to serve the needs of the plan area's existing and future population concurrent with new residential development.
- OS2** To develop and facilitate the provision of public open space generally in accordance with "Sustainable Residential development in Urban Areas-Guidelines for Planning Authorities" (DOEHLG 2009).

- OS3** Prohibit non-community uses on areas of lands permitted or designated as public open space in existing residential developments.
- OS4** To facilitate and encourage a series of high quality open spaces throughout the town, preferably as part of a larger linked green network that is available to all ages and accessible to everyone, including people with mobility impairments.
- OS5** To retain open space lands with established recreational uses.
- OS6** To preserve, manage and maintain to a high standard the existing parks and open spaces in the settlement and to preserve the open green spaces within developments that have been identified as open space as part of a planning permission.
- OS7** To facilitate the development of allotments of an appropriate scale on lands which meet the following criteria:-
- Lands situated within or adjacent to the edge of plan area;
 - Lands that are easily accessible to the residents of the plan area;
 - Where an adequate water supply can be provided;
 - Where adequate parking facilities can be provided.
- OS8** To facilitate the provision of a skate-park within the town. In this regard, the development of a skate-park will be 'open for consideration' in a number of zones of this plan and in particular, it shall be a desired use in the Murrough Opportunity Area.
- OS9** To develop and facilitate the provision of public open space subject to compliance with the provisions for the protection of Natura 2000 sites as set out in the EU Habitats Directive
- OS10** To encourage and facilitate the development of the upper slopes of the 'Convent Lands' (zoned CE) for uses relating to ecological management / interpretation, innovative agriculture / horticulture and recreation. Any development proposal should have regard to the highly visible nature of the site and its identification as a valuable habitat in the Wicklow Urban Habitat Study, 2008. In this regard, particularly important habitat areas of the site should be retained and incorporated into any design proposals.

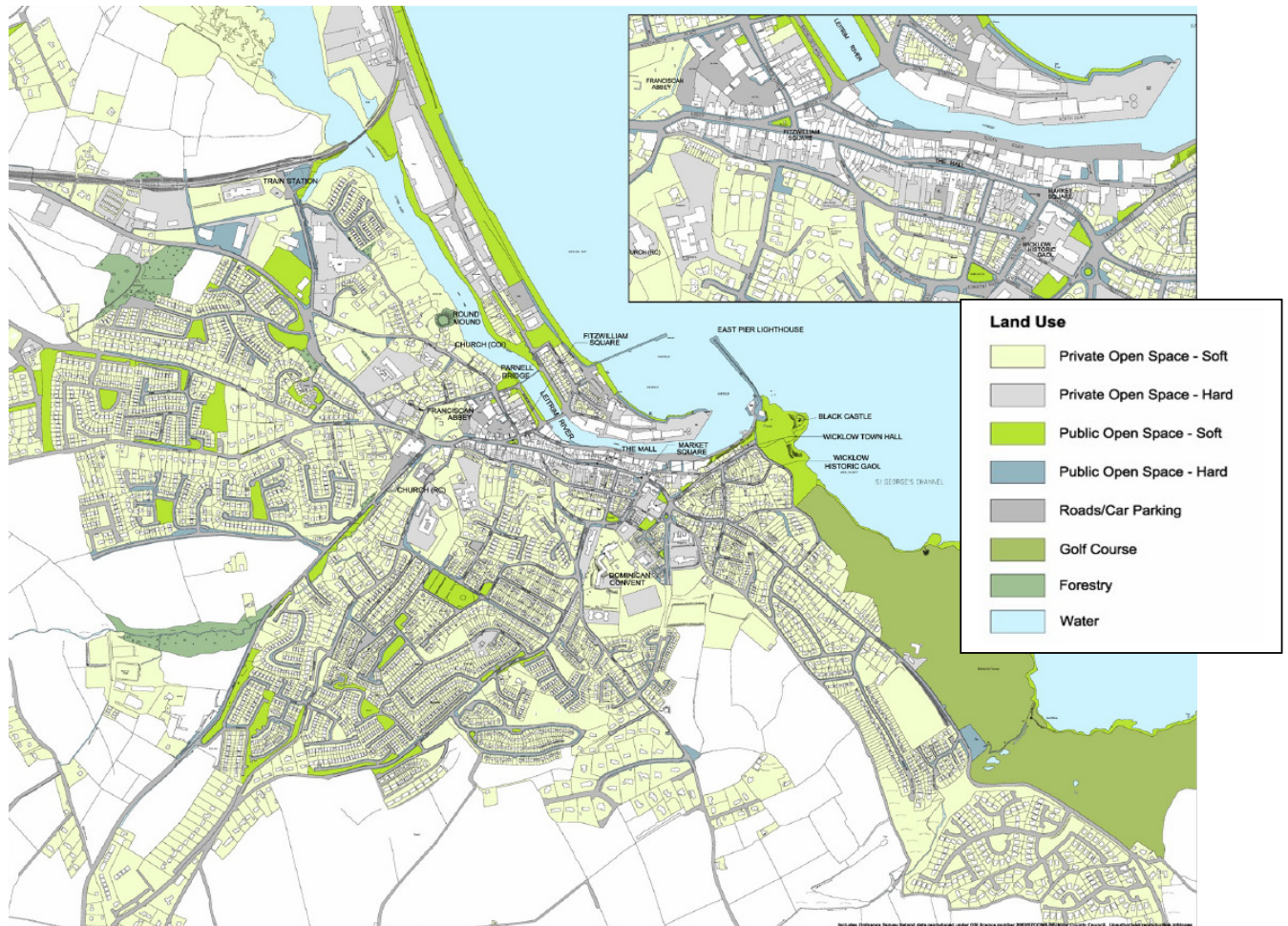
Image 8.1 Convent Lands



Map 8.1 Greenways



Map 8.2 Open Spaces



8.3.6 Harbour Leisure Uses

The potential of the harbour as a recreation and amenity resource has remained largely unexplored to date. As the town fulfils its role as a regional services and employment centre and a concentration of population there may be greater demand water based sports activities. Water based sports activities, such as sailing, also have the potential to attract more visitors to the town. The proximity of Wicklow Town to Dun Laoghaire Harbour underlines this potential.

Objectives

- PL1** To encourage any recreational use of the harbour, waterside or landside where appropriate which does not compromise the commercial operation of the port, the environmental quality of the surrounding area, or the conservation objectives of Natura 2000 sites.
- PL2** To support the provision of a pontoon to facilitate recreational or pleasure craft where this is also compatible with the commercial operation of the Port.

8.4 Development Management Standards

Open Space

These standards will apply to all new residential developments and should be read in conjunction with Chapters 3 of this plan.

8.4.1 Sports Grounds

- New organised sports areas shall be located in proximity to existing or planned community or neighbourhood facilities such as neighbourhood retail centres, schools etc and opportunities for the sharing of facilities, including changing rooms shall be explored and exploited;
- Where shared indoor facilities are not available, new sports facilities shall be accompanied by a building of scale commensurate with the size and nature of the sports facility for indoor changing and administration;
- Sports areas should be located such that a suitable separation from residential properties is provided, in order to limit disturbance from noise and light
- Sports facilities shall be provided with access to suitable roads and car parking facilities shall be required on site;
- Proposals for the floodlighting of playing fields/pitches shall be accompanied by details of external lighting schemes. All lighting shall comply or be so altered to comply with the *Guidance Notes for the Reduction of Light Pollution* (Institute of Lighting Engineers, 2000).

8.4.2 Neighbourhood Parks

- Neighbourhood parks should be ideally located within 800 metres of the population served;
- While not specifically for the purpose of sport or organised recreation, all parks shall be so laid out, contoured and landscaped to allow for walking, jogging, cycling and casual play;
- Neighbourhood parks may be provided as part of a number of housing developments, in part delivery of residential open space requirements (see below).

8.4.3 Equipped Play Spaces

- The siting and location of playgrounds / mixed use games areas (MUGAs) shall take account of the surrounding environment and be sited in order to ensure passive surveillance by neighbouring residential properties with minimum impact on residential amenity;
- The layout and positioning of apparatus shall exploit existing landscape features to provide adequate shade and shelter from wind and sun for users and create visual harmony with the surrounding area;
- Play equipment shall generally be located in accordance with the following standards:
 - 10 metres from the edge of a building or major structure;

- 20 metres from adjoining residential property lines, the edge of any local road or car park pavement area;
- 30 metres from distributor road pavements (if proposed to be closer, a perimeter fence will be required);
- 20 metres from hazards such storm water drains, bike tracks and playing fields.

8.4.4 Allotments

Proposals for the development of allotments shall be evaluated against the following criteria:

- The suitability of the site location vis-à-vis the location of the population served – sites in or at the edge of the plan area will be preferred;
- The adequacy of the public road
- The adequacy of water supplies;
- The suitability of the land to absorb the somewhat haphazard appearance of allotments, which often include randomly positioned sheds, tunnels and greenhouses.

8.4.5 Residential public open space

- Public open space in residential developments shall be provided in accordance with the following standards:-
 - public open space will normally be required at a rate of 15% of the site area – areas within the site that are not suitable for development or for recreational use must be excluded before the calculation is made;
 - where a public park is being provided by the same developer (or by a group of developers in a combined Action Area) in close proximity to the residential development site, the residential public open space provided on site may be reduced to 7.5% of the residential site area, with the remainder being made up in the park;
 - the need to provide public open space in town centre developments may be waived, particularly where public amenity space such as a town park or beach is in close proximity;
 - open spaces shall be attractively landscaped through the use of both hard and soft landscaping where appropriate. Open spaces should incorporate existing features and encourage pedestrian use by suitable paving;
 - in greenfield developments, subject to the size of the site, a hierarchy of open spaces shall be provided to provide for the different play needs of different age groups. In this regard, all developments shall aim to include:
 - at least one, flat space with dimensions on not less than 20m x 40m, suitable for ball games (trees should only be planted around the perimeter); and
 - a number of smaller spaces immediately adjacent to dwellings, with interesting contours and natural features, suitable for play activities of younger children,
 - the layout and orientation of residential developments should maximize the potential for passive surveillance of open spaces - all efforts shall be taken to ensure that all houses are in visual range of one open area.

8.4.6 Private Open Spaces - gardens, terraces, balconies

- All residential units shall be provided with private open space, either in the form of private balconies, terraces or rear / side gardens. Where necessary to make up for shortfall in genuinely private space, communal private space, for example, in the form of internal courtyards or roof gardens, shall be provided. Care shall be taken to ensure such spaces receive adequate sunlight and meet the highest safety standards;
- All apartments shall be provided with a minimum area of 30sqm private open space, which shall be at least partially made up of a private balcony or terrace. The minimum balcony / terrace sizes shall be:

Table 8.2 Balcony/terrace size

Apartment size	Minimum balcony / terrace size
One bedroom	5sqm
Two bedrooms	7sqm
Three bedrooms	9sqm

- Dwellings shall be provided with private open space at a rate of 0.64sqm per 1sqm house floor area (up to 150m²), with the minimum garden size allowable being 48sqm;
- In certain development circumstances, the open space requirements, as set out above are not appropriate to special housing needs categories, including the special needs requirements of certain social and affordable housing categories, such as the elderly and disabled. The open space requirements to be provided for certain special needs housing developments, (including social and affordable housing) shall have regard and be appropriate to, the special needs of those to be accommodated in any development.

8.4.7 Landscaping

- Tree planting can be used to complement hard-landscapes in high-density / urban developments and re-inforce and enhance existing natural features and integrate development with surrounding landscape. A landscaping plan shall be designed as an integral part of all new residential estates and shall be submitted with the planning application. This plan shall highlight existing landscape features to be retained and detail new landscaping including species, number, size and location. The plan should put an emphasis on the use of native species, and biodiversity enhancement where possible.

8.4.8 Community Facilities

- New community facilities shall be conveniently located and accessible by both residents of the development and others that have reason to use the facility. They should be well integrated with pedestrian and cycle routes and where they serve a wider community, located on or close to a quality public transport route;
- Community facilities must be accessible to all members of society, including those with disabilities.

8.4.9 Childcare

- The location and design of new childcare facilities shall generally in accordance with the guidance set out the 'Childcare Facilities: Guidelines for Planning Authorities' (DoEHLG) and the 'Child Care (Pre- School Services) Regulations 1996 & 1997' and any other relevant statutory guidelines which may issue during the life of this plan;
- As a general rule 20 childcare spaces shall be provided for every 75 dwelling units. A childcare facility within a residential development shall be sited at or near the entrance/exit to the proposed development so as to allow for ease of access, drop off/pick up points;
- Where a large development (or a development in conjunction with other developments in an Action Plan area) comprises more than 75 units, a single large childcare facility capable of serving all proposed units (and future units) may be permissible, subject to a ceiling of 100 places (full and part time);
- The internal layout and design of proposed childcare facilities should allow, where possible, for the dual usage of the proposed facility e.g. night time community uses;
 - All applications for a childcare facility shall be accompanied by the following information in addition to those set out in the policies set out for childcare developments:
 - The need for the proposed development;
 - The nature of the facility e.g. full day care, sessional care, after school care;
 - Number and ages of children to be catered for;
 - Compliance with standards for parking, traffic impacts and turning areas;
 - Proximity to public transport/areas of employment;
 - Hours of operation;
 - Open space provision and measures for management of same;
 - Impact on residential amenity.

Childcare facilities will be required to be provided in large-scale employment zones developments. Any application for employment development with in excess of 100 employees shall include a childcare facility unless it can be shown, with regard to the demographic of the workforce or the availability of existing facilities in the immediate area that no such service is necessary.

8.4.10 Education

Primary and Secondary schools

While the location, layout and design of new public primary and secondary schools shall generally be determined by the Department of Education, new schools shall be required to comply with the following criteria;

- Sites shall be well serviced by road infrastructure and in particular, shall be on or adjacent to a road network capable of accommodating existing or future public transport facilities;
- Complete foot and cycleways shall be available to the site from the residential areas that are located in the school catchment;
- Pedestrian crossings of the existing / new road network serving the site shall be provided as may be required;
- Adequate car, bicycle and bus parking shall be provided on site, including convenient short term set down area;
- Building design shall meet the highest standard possible with regard to architectural quality, visual integration with the area and minimisation of impacts on adjoining properties or residences;
- The layout and design of the school shall facilitate possible out of school hours use by other bodies /the community.

Temporary School structures

- While certain exemptions apply for temporary classrooms at school sites, where the exemptions are not applicable, positive consideration will be given for temporary structure subject to the following controls:
 - Permission shall be granted on a temporary basis for a period of a maximum of 5 years;
 - The development of temporary classroom developments shall not impede traffic movements and circulation within the school premises or significantly reduce open space;
 - The structures shall be of a high design quality and shall be painted or coloured to integrate with any existing school structure.

8.4.11 Nursing Home Developments

- Nursing home developments and facilities for the elderly shall be located close to local amenities and where adequate pedestrian infrastructure has been or is capable of being provided;
- Individual/independent housing units proposed as part of a nursing home / retirement village shall generally be held in single ownership with the overall site, with lease agreements to the occupants. Where for the viability of the project the sale of units required, this shall be strictly only on the basis of a legal agreement specifying that the units shall at all times be utilised only for accommodation for the elderly / those in need of nursing home care;
- Developments comprising of a number of independent dwellings shall comply with the housing layout and design standards set out in this plan. Deviations from the density, car parking and open space may be considered where this can be suitably justified having regard to the needs of the future residents;
- Facilities shall be so laid and designed to meet standards and obligations specified in Nursing Homes (Care and Welfare) Regulations, (1993) and the Building Regulations, in particular Part M.

8.4.12 Care Facilities

- In accordance with the Planning & Development Regulations 2001, change of use from residential to a care facility for more than six persons with an intellectual or physical disability or mental illness requires planning permission;
- Applications for permission for change of use to care facility or a new care facility shall be evaluated against the following criteria:
 - Care facilities shall be located close to local amenities and where adequate pedestrian infrastructure has been or is capable of being provided;
 - Adequate provision shall be made for car parking and open space facilities.

8.4.13 Accessibility

- In considering access for those with a disability, the Council will adhere to the criteria set out in Part M of the Building Regulations (S.I. No.179, 2000) and Part M (Amendment) Regulations 2010 (S.I. No.513 of 2010) and associated Technical Guidance Documents. Developments should also have regard to the National Disability Authority's Building for Everyone – a Universal Design Approach document (2012);
- New dwellings should be designed in order to ensure that they are visitable and accessible by people with disabilities or mobility impairments. Design considerations shall include:-
 - The provision of a level/gently sloped or ramp approach access to the dwelling from the entrance point to the site or from a suitable parking spot.
 - A level access at one entry point to the dwelling.
 - A front door and living room door wide enough to accommodate a wheelchair.
 - Circulation space for a wheel chair at entry storey.
 - A ground floor toilet located so as to be usable by wheelchair users and other people with disabilities or mobility impairments.

Chapter 9

Traffic, Transport and Accessibility

9.1 Introduction

While the overarching rationale for the production of a development plan is to guide land-use, the integration of good land use planning with transportation is a key that can unlock significant improvements in the quality of life, in ways that are tangible to many in Wicklow, who have long identified commuting as being a major drawback to living in this County. Reducing the need to travel long distances by private car, and increasing the use of sustainable and healthy alternatives, can not only bring multiple benefits to both our environment and communities, but also to our own mental and physical wellbeing.

It is therefore the strategy of this plan to:

- Provide for a land use strategy that produces a settlement of such form and layout that facilitates and encourages sustainable forms of movement and transport, prioritising walking and cycling, and public transport. To achieve this aim, an IFPLUT⁵ study was prepared in 2005, which will continue to inform future policy formulation;
- Promote the delivery of local transport links within the settlement (such as feeder buses to the train station), and between the town and outlying rural areas;
- Promote the improvement of public transport services, in particular the upgrading of the Dublin – Rosslare train line and the development of improved bus services;
- Allow for the improvement or provision of new walking and cycling facilities throughout the settlement;
- Facilitate the improvement of the existing road network, to remove bottlenecks and increase free flow;
- To improve facilities for pedestrians and access for people with special mobility needs.

The overarching consideration in transport planning for the settlement is the hierarchy of road users. This considers transport user needs in the following order:

1. Pedestrians (including those accessing public transport);
2. Cyclists;
3. Public transport users;
4. Private vehicles users.

The application of this hierarchy will guide transport investment in Wicklow- Rathnew over the life of this plan.

9.2 Walking and Cycling

The compact form of Wicklow- Rathnew lends itself to walking and cycling; however, the topography of much of the town and the traffic in the town centre combine to undermine the potential of walking and cycling as popular transport modes. Many of the residential areas within Wicklow- Rathnew are hilly and this acts as a deterrent to the use of pedestrian or cycle transport. The opening of the Port Access Road has greatly enhanced the pedestrian and cyclists' environment within Wicklow town and this road, along with the Town Relief Road, has provided an important walking and cycling route around Wicklow-Rathnew.

Government Policy, as set out in "Smarter Travel - A New Transport for Ireland 2009-2020", places an emphasis on walking and cycling as alternatives to vehicular transport. The provision of walking and cycling routes within Wicklow-Rathnew forms an essential part of the linked-up transport system, involving a variety of transport modes where public transport facilities can be availed of. While the land-

⁵ IFPLUT – Integrated Framework Plan for Land Use and Transportation.

use plan cannot influence whether members of the public will walk or cycle to a destination it can include objectives that would promote these forms of transport.

Walking and Cycling Objectives

- CW1** To enhance the permeability of the settlement through the facilitation and promotion of opportunities for safe pedestrian and cycling linkages to and within the town / village centres, employment areas, schools and public transport nodes that will maximise travel by sustainable modes; to improve existing or provide new foot and cycleways on existing public roads, as funding allows.
- CW2** To require all new (district or local) distributor roads, that is, roads that carry traffic between industrial, commercial and residential areas to regional road / national primary roads and roads between district distributors to local access roads (i.e. roads abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function) to include footways and to provide for cyclists in accordance with the NTA National Cycle Manual.
- CW3** To require new foot and cycleways developed as part of large scale development proposals outside of the town centre to be integrated where possible with existing foot and cycle networks in the town, at the developer's expense.
- CW4** To facilitate the development of foot and cyclepaths off road (e.g. through open spaces), where they will provide greater levels of permeability for these modes, while ensuring that personal safety, particularly at night time is of utmost priority. Such developments will be subject to assessment for environmental sustainability, and protection of the conservation objectives of Natura 2000 sites in accordance with the EU Habitats Directive.
- CW5** To encourage the provision of secure bicycle parking facilities at strategic locations within the settlement, such as within Wicklow town centre, Rathnew village centre, Wicklow train station, at community facilities within the settlement and at transport nodes.
- CW6** To promote and encourage the Green Schools Programme within Wicklow and to liaise with all relevant Departments/agencies involved in the operation of the programme.
- CW7** To facilitate the better management and formalisation of cycling and walking routes along the coast and looped walk along the east bank of Broadlough, ensuring that these help to alleviate current recreational pressures on the conservation objectives of Natura 2000 sites

9.3 Public Transport

Public transportation into and within Wicklow and Rathnew is available by means of rail, bus routes and taxi/hackney services. The Dublin-Rosslare railway line serves Wicklow Town with approximately 9 services per day in each direction from Monday to Sunday. The train station is located to the north of Wicklow town centre and is relatively remote from both Wicklow Town Centre and Rathnew Village Centre. Bus services are made up of a national bus route operated daily by Bus Eireann, a local/rural commuter services from the surrounding villages and a local bus service from Wicklow to Arklow via Avoca. The services range from approximately twenty-one return journeys on the expressway route to two daily returns to Wicklow via Avoca. There are also a number of local taxi/hackney services within the town.

There is no official 'park and ride' facility in Wicklow, however there is a large (c. 80 spaces and c.15 bike spaces) car park at the train station. While there is strong daily demand for spaces in this car park, given the limited train services, the car park adequately caters for this demand. Provision shall be made in this plan to reserve undeveloped land in close proximity to the train station for a larger car park, should the train service / demand for carparking significantly increase.

There has been an increased emphasis in recent times on public transport as an alternative to the private car; however, while it is noted that there has been significant progress made in the national public transport network, the level of investment in services has not kept pace with the increased levels of

population growth, which has contributed to the increase in the car-based commuting to Dublin. While the Development Plan is a land-use, rather than a transport plan, it will endeavour to put in place the necessary policy framework to encourage and facilitate the improvement of public transport.

Public Transport Objectives

- PT1** Facilitate the use of public transport for travel within the settlement and to external destinations.
- PT2** To encourage and co-operate with the statutory bodies responsible for improving the public transport facilities within the town.
- PT3** To reserve lands of c. 1ha to the north of the train station for future expansion of car parking facilities
- PT4** To ensure that possibilities for the improvement of the Dublin-Rosslare line are maintained and to ensure that land uses adjacent to the station and rail lines are appropriate and will facilitate future improvements.
- PT5** To encourage the development of the train station and the surrounding lands / roads as the primary 'transport interchange' where a number of transport types can interchange with ease. In particular:
- To improve the bus links within the plan area to the train station and to examine the potential for buses to service the train station directly;
 - To encourage the improvement of bicycle facilities at the station;
 - To improve existing and provide new footway / cycleway linkages to the train station;
 - To encourage the development of a designated taxi rank at the station;
 - To work to improve signage between Whitegates and the station
 - To improve linkages between the station and development land to the north of the railway line
- PT6** To encourage the development of two secondary 'transport interchanges' at Wicklow Gaol and in Rathnew Village, in particular:
- To improve bus turning and parking facilities
 - To facilitate the development of covered shelters and bike parking stands
 - To encourage the development of designated taxi ranks at these locations;
 - To improve existing and provide new footway / cycleway linkages to these hubs;
 - To work to improve signage at these locations
- PT7** To promote the delivery of improved and new bus services in Wicklow-Rathnew by:
- Facilitating the needs of existing or new bus providers with regard to bus stops;
 - Facilitating the development of bus shelters and improved signage throughout Wicklow-Rathnew;
 - To facilitate a shuttle bus between the train station and Wicklow Town Centre, Rathnew and Clermont Campus.

9.4 Roads

Wicklow is strategically located between Dublin and Rosslare and benefits from its location on the N11/M11. Wicklow town centre is connected to the N11 by two major regional roads – the R750 which links the town to the N11 Rathnew-Ashford interchange via Rathnew and the R751, which links the town centre to the N11 at the Beehive. Wicklow town centre is also linked via local road L509 (Rocky Road) to the N11 Ballinabarney interchange. All of these routes from and to Wicklow town centre connect to the new Town Relief Road, which allows for circulation around the town from any entry point from the N11.

Rathnew village centre is located in close proximity to the N11 Rathnew-Ashford interchange and is also connected to the Ballinabarney interchange via the old N11 (now a regional road).

The R750 is the principal local distributor road through the settlement from the N11 to the north, through Rathnew, through the Main Street of Wicklow town and onto Dunbur and the coast road to the south. The Regional Road R752 connects Rathnew to Rathdrum and on to the west of the County. The new Port

Access Road connects both centres to the Murrough area obviating the need to travel through Wicklow town centre.

Below this distributor level network are secondary routes that provide a through and loop access to the town centre, residential areas and other sectors of the town. Traffic flows on a number of the main routes within the town centre is constrained due to the restricted capacity of the junctions.

Road Objectives

- RP1** To facilitate the future improvement of the settlement's roads hierarchy to distribute vehicular traffic on appropriate distributor routes whilst minimising the number of car trips through the town centre.
- RP2** To facilitate the development of a new inner relief road to the east of Rathnew Village (as shown on Map 9.1) which would facilitate access to new developments from the existing road network, would prevent congestion at the Rathnew mini roundabout due to the development of AA1 and achieve good traffic circulation in the area
- RP3** To facilitate the development of a continuation of the distributor link road west of Marlton Park estate to the Town Relief Road.
- RP4** To facilitate the upgrading of Rocky Road in Wicklow Town and environs to a distributor road.
- RP5** To facilitate the upgrading of the Greenhills Road to serve future development of zoned lands in this area.
- RP6** To facilitate the development of a speed restricted link road from Crinion Park to the Broadlough residential estate, alongside the Convent lands to the south within the town.
- RP7** To facilitate the development of a new distributor road from the Rathnew – Glenealy Road (west of the village centre) to the R772, north of the village centre (as shown on Map 9.1) which would facilitate access to new developments from the existing road network, would prevent congestion at the Rathnew mini roundabout due to the development of employment zoned lands at Milltown / Charvey and achieve good traffic circulation in the area

9.5 Parking

It is national policy to reduce the dependency on the private car and move to a more sustainable form of transport namely public transport and / or cycling / walking. However notwithstanding this shift in policy there is still a requirement to cater for the needs of car users in terms of efficient traffic management, car parking, road infrastructure improvements and provision. There are over 1,000 paid parking spaces in Wicklow town centre with provision for short and long term parking and there is limited free parking in Rathnew Village.

Parking Objectives

- P1** New / expanded developments shall be accompanied by appropriate car parking provision as detailed in Table 9.2. Deviations from this table maybe considered in the following cases:
 - In the town / village centres where it is illustrated that there is sufficient public parking, and there is parking enforcement;
 - In multi-functional developments, where the developer provides a robust model of car-parking usage to show that dual usage will occur and that peak car parking demand at any time of the day will be met;
 - Where a residential development is in close proximity to a public transport node.
- P2** Provision shall be made in all new / expanded developments for disabled parking (and associated facilities such as signage, dished kerbs etc), at a suitable and convenient location for users.

- P3** Provision shall be made for off street loading / unloading facilities in all new / expanded developments, which are to receive regular deliveries.
- P4** To facilitate the operation and free flow of traffic in a safe manner in particular in the town / village centres and in locations proximate to schools, health and community facilities, by appropriately controlling car parking at such locations.
- P5** To facilitate the development of a multi-storey car park in Wicklow town centre at a suitable location, subject to the protection of the built heritage.

9.6 Harbour and Port

Wicklow Port and Harbour are an important physical feature and source of economic activity associated with the town. However, the full potential of the port and harbour is not being realised and investment in this asset could provide significant economic benefits to the settlement. This however must be balanced with competing demands to develop the amenity and recreational potential of the area.

Key to the development of this area, for either further commercial activity or leisure uses is access - with the construction of the Port Access Road in 2009, vehicular access to the Port was improved significantly with the effect of re directing Port HGV's away from the town centre.

Harbour and Port Objectives

- HP1** To promote and facilitate through appropriate land-use zoning and development management the expansion or development of recreational facilities and/or marinas at the harbour in Wicklow subject to compliance with the protection of the conservation objectives of surrounding Natura 2000 sites in accordance with the EU Habitats Directive.
- HP2** To support and facilitate the continued development of commercial marine and shipping activity at Wicklow Port, and to support proposals for port expansion and / or relocation subject to compliance with all of the objectives and standards set out in this development plan.

9.7 Development Management Standards.

9.7.1 Public Transport

Rail Network:

- Development in the vicinity of existing railway lines shall comply with the set back and construction requirements of Iarnrod Éireann.

Bus Network:

- New and improved roads shall generally be designed and include infrastructure for bus use unless otherwise advised by the Local Authority;
- In areas of large-scale housing expansion and employment development, road layouts shall be designed to allow for high permeability of buses;
- New / improved bus stops shall be of a suitable design in order to assist mobility-impaired passengers in boarding / leaving the vehicle;
- Proposed bus shelters should be sited and designed with due cognisance of both the needs of the bus users and bus routes and the visual sensitivity of the location of the proposed shelter.

9.7.2 Park and Ride Facilities

In all proposed park and ride facilities, the Council shall require the provision of the following:

- Pedestrian and cycle paths connecting the proposed facility to the public transport node it is serving and to the surrounding developments;
- Environmentally friendly lighting along all pedestrian and cycle paths connecting the facility to the transport node

- Adequate set down, waiting and turning areas for feeder buses;
- Bicycle parking facilities.

9.7.3 Public Roads

National Road and Regional Road Development Control Objectives

- Any works carried out on national and regional roads shall comply with the National Roads Authority publication 'Design Manual for Roads & Bridges', 'Manual for Streets' and the 'National Cycle Manual' as may be amended and revised, unless local conditions determine otherwise;
- No development shall be permitted that would involve direct access to or from a motorway in accordance with Section 46 of the Roads Act (1993);

Local Road Development Management Objectives (General)

The design of new urban local roads or improvements to existing urban roads and new means of access onto urban local roads and rural local roads shall generally comply with the guidance set out in the "Traffic Management Guidelines" (DTO), the National Cycle Manual and "Recommendations for Site Development Works for Housing Areas"(DoE), as appropriate. In particular-

- Positive measure for pedestrian and cycle safety, including designated tracks and junction facilities, will be required on district distributor roads;
- Local access roads should be principally designed with the pedestrian in mind (particularly at junctions) and in some circumstances shared pedestrian/vehicular areas may be appropriate.

District Distributor Roads-urban

- The existing urban regional and local road network in the plan area provide "district distributor road" functions. However in large scale developments or new expansion areas, new district distributor roads will often be required and the location and route of required new district distributor road will be indicated within the plan area;
- New district distributor roads will be required to be designed to the standards of (urban) regional roads, unless otherwise specified by the Planning Authority.

Local Collector Roads/local Access Roads (Urban)

- Regardless of the nature of the development serviced, new local roads should be designed in a hierarchical manner, with collector or spine roads distributing traffic around local access roads providing direct access to properties and buildings;
- Measures to control the speed of roads to reflect their function in the hierarchy shall be employed as appropriate. This does not always imply the use of traffic calming devices such as ramps or rumble strips, but speed may be controlled through the manipulation of road alignment or the use of different surfaces;
- Local collector roads will normally be at least 6m in width, with footpaths and cycleways on both sides.
- Entrances and car parking shall generally be kept to a minimum on collector roads and shall only be provided where design speed is low and visibility is high;
- Local access roads shall be kept to the minimum width necessary to serve the scale and type of development proposed to reduce speed, and in housing areas, widths as narrow as 4.8m may be considered. However, the needs of emergency and refuse vehicles must also be accommodated.
- In employment areas, as local access roads will normally be serving industrial / warehousing / office buildings, adequate width will be required for larger vehicles, turning etc;
- Where new 'town centres' or 'streets' are being created, they should be designed on the 'local access road' scale. However, through careful design, appropriate provision shall be made for deliveries and commercial vehicles;
- In new housing areas, innovative road layouts will be encouraged and in particular, local access roads should be designed to give the highest priority to pedestrians and cyclists. The creation of 'home zones' should be a priority.

9.7.4 Pedestrian and Cycling Facilities

- New pedestrian and cycle facilities shall be designed in accordance with the standards set out in the Traffic Management Guidelines and the NTA National Cycle Manual and shall ensure ease of connectivity with the environs and between origins and destinations;
- Footpaths shall be provided on all new urban roads (from district distributor down to local access roads) to allow for full permeability of residential districts by pedestrians. All footpaths shall be designed to accommodate those with mobility difficulties or who are wheelchair bound;
- Cycleways shall be provided on urban district distributor roads and local collector routes e.g. spine routes through new housing estates. They will not be required on local access roads; instead the design of such roads should be based on reducing vehicular speeds and concentrate on making the road a safe environment for cyclists and children at play;
- The use of shared road space, that is suitable for safe use by vehicles and cyclists / pedestrians may be considered in lieu of footpaths and cycleways; the requirements of the Planning Authority should in such cases be determined prior to the making of any application;
- Pedestrian and cycleways will be required to follow the most direct route from origin to destination, subject to safety considerations. In particular, such routes should have adequate surveillance surrounding the development;
- Street lighting along foot and cycle paths shall be provided in accordance with the recommendations made in 'Site Development Works for Housing Areas' (DoEHLG 1998) as may be revised or replaced.

9.7.5 Vulnerable Road Users

- Particular design solutions will be called for in areas where vulnerable users might be present e.g. at or near schools / crèches, near youth or sports facilities. At these locations, vehicular traffic shall be required to be slowed appropriately or stopped to give priority to cyclists and pedestrians.
- Developers of such facilities may be required to fund such alterations as deemed necessary to accommodate their users;
- Suitable measures shall be put in place at junctions and crossings for those with mobility or visual impairment, such as ramps and tactile pavements;
- Facilities with vulnerable road users shall be located in areas with minimum conflicting traffic movements on local roads and allow access by the greatest number.

9.7.6 Parking

Car Parking

- Where on-site car parking is provided, the car parking area shall be suitably surfaced and all bays and aisles marked out with white durable material. Spaces shall meet the following size requirements:

Table 9.1 Car parking spaces

Car-Parking Bays	5.0m x 2.5m
Disabled Parking Bay	5.0m x 2.5m + 0.9m between bays
Loading Bay	6.0m x 3.0m
Circulation Aisles	6.0m in width

- Loading bays shall be located to prevent any obstructions to traffic circulation or use of other spaces;
- Where parking is permitted in the view of the general public, adequate soft landscaping shall be provided to soften the appearance of hard surfaced areas;
- Parking areas shall be reserved solely for the parking of the vehicles and should not be used for the storage of materials or goods associated with the development, nor for the parking of goods or other heavy vehicles;

- The standards set out in Table 9.2 to follow shall apply to all new developments, be it new construction or additions to or material change of use of existing buildings;
- Disabled car parking spaces shall generally be provided at a rate of 5% of the total number of spaces, for developments requiring more than 10 car parking spaces, with the minimum provision being one space (unless the nature of the development requires otherwise).

Bicycle Parking

- The Planning Authority will require the provision of a minimum level of bicycle parking facilities in association with new developments and the change of use of an existing property. Where the provision of bicycle parking facilities are intended for use by the staff of that particular development, stands should be located within the curtilage of the development to ensure security and supervision. Bicycle stands for use by visitors should be located to maximise convenience to the entrance of buildings and positioned so as to ensure safety, security and supervision; the NTA's National Cycle manual should also be referred to for guidance.
- In residential developments without private gardens or wholly dependent on balconies for private open space, bicycle stands should be provided in secure private communal areas;

The bicycle parking standards set out in Table 9.2 to follow shall apply.

Entrances and Sight Lines

- In all areas, new entrances shall be designed having regard to the function and traffic volumes on the adjoining public road as well as pedestrians, cyclists and vulnerable road users;
- Clear sightlines will be required to be available or provided at new junctions and entrances. The sight distance required shall be calculated using the applicable road design manuals (at the time of application) having regard to the following criteria:-
 - The designation of the road, its function in the road hierarchy and existing / projected volumes of traffic;
 - The speed limit of the road;
 - The vertical and horizontal alignment of the road;
 - And any other such factors that may be pertinent to the specific location or as may be set out in road design manuals.

When locating new entrances and proposing increases in traffic movements at existing entrances, it must be shown that vehicles turning right into the entrance do not obstruct or cause a hazard to other road users. Sufficient forward sight distance must be available to (a) cars approaching an entrance in case a car is waiting on the road carriageway to turn right, (b) for cars waiting to turn right at an entrance. Right turning lanes may be required and these shall be designed in accordance with the applicable road design manuals (at the time of application).

Road Gradients

- Flat gradients (i.e. no more than 1:40 / 2.5%) will be generally required at new junctions / entrances.
- The length of this flat area shall be determined having regard to the function of the new road. For a single dwelling or smaller housing development (less than 10 units), this area shall normally be a minimum of 6m in length. For larger housing developments or commercial developments, this may increase to 10m or more in order facilitate larger vehicles such as delivery vans, refuse trucks etc
- Roads serving new housing or commercial development shall nowhere be allowed to exceed a gradient of 1:10 (10%). Where a development includes roads at such gradients, the gradients will be required to be reduced appropriately at bends and corners.

Table 9.2 Car parking standards

Use Class	Car Parking spaces to be provided	Cycle Spaces to be provided
Auditorium, Theatre, Cinema, Stadium	0.33 per seat	1 per 100 seats
Church, Place of Worship	0.33 per seat	1 per 5 seats
Nursing Homes	0.5 per bed	1 per staff
Third Level Colleges	0.5 per student	1 per 3 students
Hotel (excluding function room)	1 per bedroom	1 per 50 bedrooms
School (primary)	1.2 per classroom	1 per 4 children
School (secondary)	2.0 per classroom	1 per 2 children
Hospital	1.5 per bed	1 per 4 staff plus 1 per 10 beds
Clinics & Group Medical Practices	2 per consultant	1 per 4 staff plus 1 per 10 beds
Dwelling /Apartment	1-2 per unit	1 per unit (apartment only)
Warehousing	1 per 100 m2 gross floor area	1 per 200m2 gross floor area
Retail Warehousing & Factory/ Outlet/ Garden	2 per 100 m2 gross floor area	3 per 100m2 gross floor area
Library	3 per 100 m2 gross floor area	1 per 4 staff +1 per 100m2 of gross floor area
Manufacturing	3 per 100 m2 gross floor area	2 per 100m2 gross floor area
Offices (ground floor)	5 per 100 m2 gross floor area	2 per 100m2 gross floor area
Offices (above ground floor)	4 per 100 m2 gross floor area	2 per 100m2 gross floor area
Bank or Financial Institution	7 per 100 m2 gross floor area	2 per 100m2 gross floor area
Restaurant dining room	10 per 100 m2 gross floor area	1 per 4 staff +4 per 100m2 of gross floor area
Take-Away	1 car parking space per 18sqm gross floor area	2 per unit
Ballroom, Private dance Clubs	8 per 100 m2 gross floor area	1 per 4 staff plus 4 per 100m2 of gross floor area
Bar, Lounges, Function Rooms	10 per 100 m2 gross floor area	1 per 4 staff plus 4 per 100m2 of gross floor area
Marina	1 car space per berth	1 per 4 berths
Playing Fields	10 car spaces per pitch	10 per pitch
Childcare facilities	0.5 spaces per staff member + 1 car parking space per 10 children	0.5 per staff member
Allotments	1 space generally per plot within the plan area, however relaxation of this standard shall apply on a case by case basis	1 per plot
Out of town / regional shopping centres	6 per 100sqm floor area	4 per 100m2 gross floor area
Other retail (district / neighbourhood centre, large / discount foodstore)	4 per 100sqm floor area	4 per 100m2 gross floor area
Small Shop (<500sqm Gross Floor area)	4 per 100m2 of gross floor area	4 per 100m2 of gross floor area
Leisure facilities	4 per 100m2 of gross floor area	1 per 4 staff plus 4 per 100m2 of gross floor area
Showrooms	4 per 100m2 of gross floor area	2 per 100m2 of gross floor area
Cultural or Entertainment facility	7 per 100m2 gross floor area	1 per 4 staff plus 4 per 100m2 of gross floor area
Garages	N/a	1 per 4 staff plus 4 per 100m2 of gross floor area
Rail Stations	N/a	5 per departing service in peak period
Bus Stations	N/a	4 per bus bay
Bus Stops	N/a	4 per stop

Set Backs from Public Roads

- In the interests of traffic safety, residential amenity and because of the long term space requirements of roads, particularly in rural areas, the Council will normally require buildings to be set back from the edge of the hard-paved surface of the public road as set out in Table 9.3 below;
- Where a set back lower than that shown in Table 9.3 is already existing on a site or in the immediate environs of a site, the Planning Authority may consider a reduction in the set back, having due regard to

- The likelihood of future road widening / realignment at that location;
- The desire to maximise development density at locations in or close to urban areas;
- The need to ensure adequate separation between roads and dwellings, to ensure adequate residential amenity; in particular to ensure limited disturbance by traffic noise and headlight glare from the adjacent road.

Table 9.3 Set Backs from Public Roads standards

Road Type	Set back	Description
Motorway National Primary / Secondary	20m* 100m	Employment development * All other development
Rural Regional	20m* 40m	Employment development * All other development
Rural Local Roads	20m	All development
Urban Distributor Roads	10m	All development
Urban Collector Road	6m	All development
Urban Access Road	The minimum required to facilitate necessary footpaths and a 'buffer' area between the structure and the public realm	All development

* The Council may allow a reduction in the set back for employment development, to 20m, where it is satisfied that no adverse impact are likely to arise either in terms of future road widening needs or distraction to road users

Road Safety Audits

Road Safety Audits will be required at the discretion of the Planning Authority, but shall generally be required where new road construction or a permanent change to the existing road layout is proposed.

The objective of a road safety audit is to ensure that the road safety implications of all schemes are fully considered for all users of the road and others affected by the scheme. It evaluates a road scheme during the design, construction and before the scheme is opened to traffic to identify potential safety hazards and suggest measures to eliminate or mitigate these problems.

Road Safety Audits shall be prepared in accordance with the guidance set out in the Design Manual for Roads and Bridges HD19/09 (and subsequent amendments). The principles of Sustainable Safety should also be considered.

Thresholds for Traffic and Transport Assessment

As an indicator for all roads, Table 1.4 of the Traffic Management Guidelines (DoT / DoEHLG / DTO, 2003) gives the thresholds above which a Transport Assessment is automatically required. Table 9.4 below reproduces this.

Table 9.4: Traffic Management Guidelines - Thresholds For Transport Assessments

Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.
Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists or the location is sensitive.
Residential development in excess of 200 dwellings.
Retail and leisure development in excess of 1,000m ² .
Office, education and hospital development in excess of 2,500m ² .
Industrial development in excess of 5,000m ² .
Distribution and warehousing in excess of 10,000m ² .

Sub-threshold Criteria for Traffic and Transport Assessment

In some cases the impact of traffic volumes may not be significant and the thresholds for a TTA may not be exceeded. However, the type and volume of generated traffic on National Roads may be of a nature to raise concerns about effects on road safety and road structure. In such cases, the criteria in Table 9.6 below will be consulted. If the proposed development meets two or more of these criteria, then a TTA should be requested.

Table 9.6: Sub-threshold Criteria for Traffic and Transport Assessment

Vehicle Movements	The character and total number of trips in / out combined per day are such that as to cause concern.
Location	The site is not consistent with national guidance or local plan policy or accessibility criteria contained in the Development Plan.
Other Considerations	The development is part of incremental development that will have significant transport implications.
	The development may generate traffic at peak times in a congested area or near a junction with a main traffic route.
	The development may generate traffic, particularly heavy vehicles in a residential area.
	There is significant concern over the development's effect on road safety.
	The development is in tourist areas with potential for congestion
	Planning authority considers the proposal will result in a material change in trips or raises significant transport implications.

Roadside Signage

Signage serves three functions as set out below. This section covers signage on and adjacent to the public road but does not cover road traffic and directional signs erected by the Road Authority.

Directional and Information Signage

These are signs that provide the public with directions to a particular location, where destinations may be difficult to find (e.g. a specified business / service, sports club, public or voluntary service, etc.) particularly at the latter stage of a journey. What differentiates these from advertising signs is that they are for the purpose of directing people to a place, club or service that they already know about, or a facility aimed at tourists, that they would be expected to be seeking. These are intended to complement, but not replace, pre-planning of the journey and the use of verbal instructions, maps and road atlases. Examples of such destinations would typically, but not exhaustively, include railway stations, football clubs, theatres, schools/colleges, national and regional attractions.

Advertising Signage

These are signs whose objective is to market a business, product or service. These can take many forms, ranging from billboards and posters, to pole mounted signs (including fingerpost signs). While the Council acknowledges the need for advertising and accepts that it is a necessary part of commercial life, it is also aware of its responsibility to protect the visual amenity in urban and rural areas and for the elimination of traffic hazards. A conglomeration of signs or a sign of inappropriate size can detract considerably from the character and visual amenity of a settlement, result in visual clutter and conflict with the interests of road safety.

Identification Signage

These are signs to identify a business, service or premises, and are normally proximate to the premises/business/service. There are two distinctive ways in which consent can be applied for advertising or signposting structures.

- Firstly, planning permission is required for the erection of signs located on private property (except those exempted under Schedule 2 Part 2 of the Planning & Development Regulations 2001, as may be amended).

- Secondly, the erection of advertising signs on, over or along the public road is licensable under Section 254 of the Planning & Development Acts as amended. Such licences are granted on a temporary basis.

The nature and extent of signage allowable will be determined by its location and in particular, the classification of the road will set the control parameters.

Advertising Signage Standards

Advertising Signs

Advertising signs will not be permitted except for public service advertising. This is to avoid visual clutter, to protect and preserve the amenity and/or special interest of the area, to ensure traffic safety and where applicable, to preserve the integrity of buildings, particularly those listed for preservation.

Strictly temporary signs may be permitted to advertise permitted development, subject to an assessment of the cumulative impact of signage in the area and having regard to the particular environment of the site.

Information and Directional Signs

Regional and Local Roads

Directional and information signage will be permitted on Regional and Local Routes. Such signage shall be in finger post form and shall include only the business / facility name and distance information. Subject to the following:

- These are intended to complement, but not replace, pre-planning of the journey and the use of verbal instructions, maps and road atlases;
- Supplement rather than duplicate information already provided on other direction signs. In particular signs will only be considered from the town or village (that is already well signposted) nearest to the facility;
- Tourism and leisure facilities shall be on signs of white writing on brown background. All other signs shall be black writing on a white background;
- Signs will be permitted from more than one direction only where it can be demonstrated that the different approaches are well trafficked, and add convenience to road users;
- In addition signs will also be considered where there are clear benefits to the road user, e.g. for safety reasons, where locations may be hard to find or to encourage visitors to use particular routes.

Identification Signage on Sites / Buildings

Signage on sites or buildings shall comply with the following requirements:

- Signage on shopfronts or other non-retail service uses in town and neighbourhood centres shall comply with Chapter 6 of this plan;
- Signage on other commercial buildings / sites (e.g. in business parks, hotels etc) shall be tastefully designed and positioned at or near the main entrance to the site / structure, with lettering size limited to that necessary to identify the site when in visual distance (which would not normally require lettering in excess of 300mm height);
- In semi-rural areas, a wall mounted plaque type sign at the entrance gates will normally be considered sufficient for site identification purposes, with lettering not exceeding 200mm. A pole mounted traditional hanging type style, not exceeding 300mm x 500mm may also be permitted, subject to the proviso that no impacts on traffic safety arise;
- The size, scale and number of freestanding signs, flagpoles or other signage structures with logos or advertising thereon will be controlled in the interests of amenity and the preservation of the character of the area;
- Signs will not be permitted where they compete with road signs or otherwise endanger traffic safety.

Chapter 10

Services infrastructure – Water, Waste, Energy & Telecommunications

10.1 Introduction

The provision and operation of water, waste, energy and telecommunications services infrastructure is a key element in supporting economic growth and providing a satisfactory quality of life for existing and future residents within the plan area through sustaining environmental quality. In particular, water infrastructural capacity is a pre-requisite for new development within the plan area. Whilst universal access to these services is the ideal model the reality is that there are limitations on available resources. This stems from a combination of environmental, organisational capacity, planning and other constraints, coupled with economic reality, all of which dictate that resources must be focused in a manner that will maximize potential benefit to the settlement.

10.2 Water

10.2.1 Water Supply

The 'Wicklow Water Supply Scheme' is the water supply for the plan area which comes from the Dublin Regional Supply at Vartry Reservoir in Roundwood. This water is then piped to the Cronroe Water Treatment Plant and Reservoir in Ashford and then piped along the Glenealy Road to Broomhall before being equally split to initially serve the Broomhall Reservoir and then piped on to the Ballynerrin Reservoir.

Upon completion of a new pipeline from the Vartry supply to the Cronroe Reservoir by 2013, the town will have sufficient water supply to meet the needs of projected population growth. Notwithstanding the availability of water supply, the ability to supply all lands within the environs boundary is restricted, mainly due to the lack of a high level reservoir, and also to requirements regarding the upgrade and rationalisation of existing systems.

It is important that measures are taken to control the demand for water and focus now needs to be placed on water conservation as well as supply increase. The term 'water conservation' refers to the wide range of measures that can be employed to more efficiently utilise the water resource, such as reducing the demand for water in homes, farms and places of work, reducing leakage in the water distribution network and the reuse of rain / storm water and grey water.

10.2.2 Wastewater

The wastewater from Wicklow town, environs and Rathnew (as well as Ashford) is directed to the Murrough Pumping Station where the primary screening of the wastewater takes place. Thereafter the screened wastewater is pumped to the new Knockrobin Wastewater Treatment Plant where it goes through the treatment process. The high quality treated effluent is returned to the Murrough Pumping Station where it is discharged to sea via a surge tower and a long sea outfall pipe. The remaining sludge is treated and used for beneficial use.

This waste water treatment system has a capacity of 34,000 p.e. (population equivalent) and is currently (2012) operating at 17,500pe capacity. Therefore there is adequate capacity to meet the needs of the 2022 projected plan area population and its associated commercial and community development.

10.2.3 Surface Water

Surface water in the town is mainly collected in the combined sewer system and treated in the waste water system before being discharged directly to the sea. In accordance with current practice, newer developments have separate surface water collection and attenuation systems however they are being

collected in the main sewer system as there is no separate surface water drainage system within the town. In times of excess surface water, this is attenuated in the Murrough storage tanks to minimise the risk of overflows before being treated in the waste water plant.

10.2.4 Water Objectives

- W1** To ensure that all waste water generated is collected and discharged after treatment in a safe and sustainable manner, strictly in accordance with the standards and requirements set out in EU and national legislation and guidance documents including the provisions of the Eastern River Basin Management Plan and the Habitats Directive.
- W2** All new development on zoned land shall be required to connect to public mains system, i.e. the 'Wicklow Water Supply Scheme' and 'Wicklow Sewerage Scheme', for water supply and effluent disposal.
- W3** Permission will be considered for on site effluent treatment and disposal systems for single houses in the Strategic Land Bank zoning in accordance with the with the EPA manual and relevant objectives of the County Development Plan.
- W4** To examine the feasibility of connecting unsewered areas, including individual properties / premises serviced by septic tanks, to existing and planned sewer networks
- W5** To ensure the separation of foul and surface water effluent through the provision of separate sewerage networks.
- W6** To ensure the implementation of Sustainable Urban Drainage Systems (SUDS) and in particular, to ensure that all surface water generated in a new development is disposed of on-site or is attenuated prior to discharge to an approved surface water system.
- W7** To protect existing and potential water resources of the Town and its Environs area, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies.
- W8** To ensure that safe, reliable and effective water services infrastructure is put in place to service the existing and future development needs of the settlement. To require new developments to connect to public water supplies and it has been demonstrated by the developer that any such connection will provide for adequate water for the intended development without impacting on existing supply or pressure elsewhere in the settlement.
- W9** To seek to minimise wastage and demand for water, through ongoing monitoring and improvement of the Local Authority controlled water distribution system and requiring new developments to incorporate water efficiency measures.

10.3 Flooding (Flood Management)

Flooding is a natural phenomenon of the hydrological cycle. Different types of flooding include overland flows, river flooding, coastal flooding, groundwater flooding, estuarial flooding and flooding resulting from the failure of infrastructure. Like any other natural process, flooding cannot be completely eliminated, but its impacts can be avoided or minimised with proactive and environmentally sustainable management and planning.

The Office of Public Works (OPW) is the lead agency for flood risk management in Ireland. This gives the OPW a role in policy advice and coordination in addition to its operational roles, but not responsibility for addressing all issues related to flooding. Local Authorities are required to implement the provisions of 'The Planning System and Flood Risk Management' Guidelines (DoEHLG 2009) in the carrying out of their development management functions.

These guidelines require the planning system at national, regional and local levels to:

- (1) Avoid development in areas at risk of flooding by not permitting development in flood risk areas, particularly floodplains, unless where it is fully justified that there are wider sustainability grounds for appropriate development and unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere and where possible, reducing flood risk overall;
- (2) Adopt a sequential approach to flood risk management based on avoidance, reduction and then mitigation of flood risk as the overall framework for assessing the location of new development in the development planning processes; and
- (3) Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

Flood Management Strategy

The Council shall adopt a comprehensive risk-based planning approach to flood management to prevent or minimize future flood risk. In accordance with the Ministerial *Guidelines on the Planning System and Flood Risk Management*, the avoidance of development in areas where flood risk has been identified shall be the primary response. Proposals for mitigation and management of flood risk will only be considered where avoidance is not possible and where development can be clearly justified with the guidelines' *Justification Test*. The justification test has been designed to rigorously assess the appropriateness, or otherwise, of particular developments that, for the reasons of town centre location, are being considered in areas of moderate or high flood risk. Flood management should have regard to surface water, groundwater, drinking water supply, flood plains and water and wastewater infrastructure.

Avoidance of Development in Flood Risk Areas

Flood zones are geographical areas within which the likelihood of flooding is in a particular range and they are a key tool in flood risk management within the planning process as well as in flood warning and emergency planning. There are three types or levels of flood zones defined for the purposes of the guidelines:

- Flood zone A – where the probability of flooding is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding) and where a wide range of receptors would be vulnerable;
- Flood zone B – where the probability of flooding is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding); and
- Flood zone C – where the probability of flooding is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

A flood risk assessment has been carried out in accordance with the *Guidelines on the Planning System and Flood Risk Management* and is included in this plan as an Appendix. Map 10.1 below illustrates Flood Zones A and B in the plan area – for clarity and legibility, Flood Zone C is not marked and can be taken to be all other areas.

Flood Management Objectives

- FL1** To implement the provisions of the *Guidelines on the Planning System and Flood Risk Management* and the Flood Risk Assessment carried out as part of this plan.
- FL2** Applications for developments in high or moderate flood risk areas (Flood Zones A and B) shall be assessed in accordance with 'The Planning System and Flood Risk Management Guidelines (Nov 2009 DEHLG & OPW)'. Where the planning authority is considering proposals for new development in areas at high or moderate risk of flooding that include types of development that are vulnerable to flooding and that would generally be inappropriate as set out in Table 3.2 of the Guidelines, the planning authority shall be satisfied that the development satisfies all the criteria of the Justification Test for development management, as set out in Box 5.1 of the Guidelines. Flood Risk Assessments shall be in accordance with the requirements set out in the Guidelines.
- FL3** Notwithstanding the identification of an area as being at low or no risk of flooding (Flood Zone C) where the Planning Authority is of the opinion that flood risk may arise or new information has

come to light that may alter the flood designation of the land, an appropriate flood risk assessment may be required to be submitted by an applicant for development permission.

- FL4** To limit or break up large areas of hard surfacing in new developments and to require all surface car parks to integrate permeability measures such as permeable paving.
- FL5** Excessive hard surfacing shall not be permitted for new, or extensions to, residential or commercial developments and all applications will be required to show that sustainable drainage techniques have been employed in the design of the development.
- FL6** To require all new developments to include proposals to deal with rain and surface water collected on site and where deemed necessary, to integrate attenuation and SUDS measures.
- FL7** For developments adjacent to all watercourses of a significant conveyance capacity or where it is necessary to maintain the ecological or environmental quality of the watercourse, any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/ maintenance/ vegetation. A minimum setback of up to 10-15m will be required either side depending on the width of the watercourse with riparian vegetation generally being retained in as natural a state as possible.

10.4 Waste and Emissions Control

The issue of waste management is recognised as one of the most problematic areas of environmental management. Waste generation is directly linked to trends in consumption and output, reflecting population growth and household formation, the level of manufacturing, industrial and agricultural activity, and overall economic performance. The waste produced from the above activities can be quite diverse requiring consideration of a wide range of environmental, technical, economic and market related issues in order for it to be efficiently managed.

The County's strategies and policies on waste management as whole are already set out in the Wicklow Waste Management Plan. This section will therefore only set out the strategies and objectives of plan with regard to solid waste and 'waste' emissions to the environment, as they impact on land use decisions and applications for planning permission.

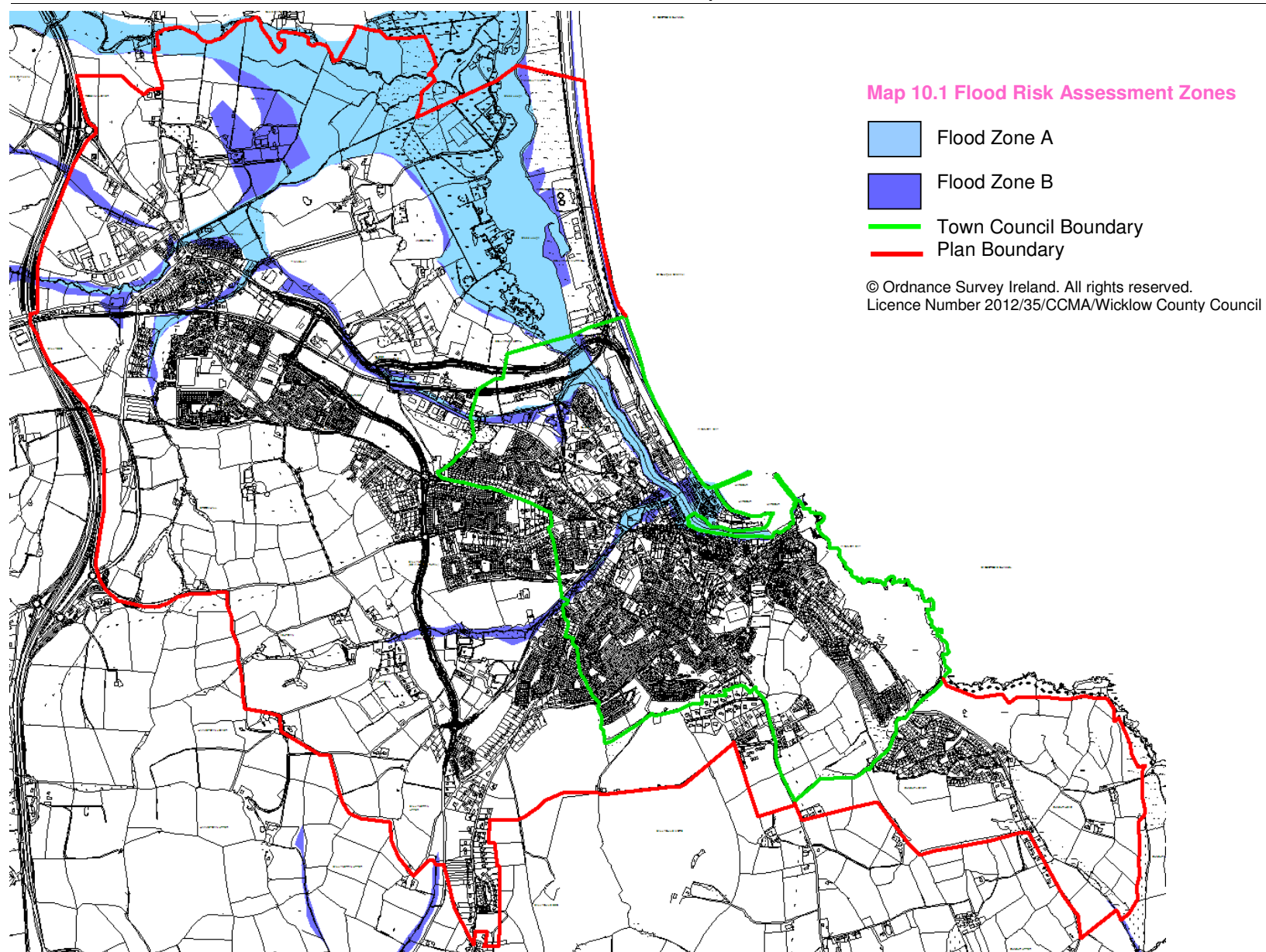
10.4.1 Solid Waste Management

It is the policy of the Council, as set out in the Wicklow Waste Management Plan, to:

- Prevent or minimise the production of waste in the first instance
- Reduce, re-use and recycle to the maximum extent possible
- Endeavour to recover energy from waste where possible
- Ensure the efficient and safe disposal of any residual waste

The role of a land-use plan in the achievement of these objectives is somewhat limited, but it will play a role in guiding the location of new facilities and services that are necessary to implement the Wicklow Waste Management Plan.

Hazardous wastes pose a greater risk to the environment and human health than non hazardous wastes and thus require a stricter control regime. Hazardous waste is generated by all sectors of Irish society, from large industry, to small businesses, households, schools and farms. It is for the most part managed by the professional hazardous waste industry and is treated appropriately and in accordance with legal requirements. A significant amount of hazardous waste is generated in County Wicklow, in the main due to the presence of the chemical and pharmaceutical industries. While the Wicklow Local Authorities do not directly manage waste generated by these private companies it does provide for civic amenity sites for the proper collection of small quantities of household hazardous waste.



Solid Waste Management Objectives

- WM1** To facilitate the development of sites, services and facilities necessary to achieve implementation of the objectives of the Wicklow Waste Management Plan.
- WM2** To have regard to the Council's duty under Section 38 (1) of the 1996 Waste Management Act, to provide and operate, or arrange for the provision and operation of, such facilities as may be necessary for the recovery and disposal of household waste arising within its functional area.
- WM3** To require all developments likely to give rise to significant quantities of waste, either by virtue of the scale of the development or the nature of the development (e.g. one that involves demolition) to submit a construction and / or operation management plan, which will outline, amongst other things, the plan for the safe and efficient disposal of waste from the site.
- WM4** To require all new developments, whether residential, community, agricultural or commercial to make provision for storage and recycling facilities.
- WM5** To facilitate the development of existing and new waste recovery facilities and in particular, to facilitate the development of 'green waste' recovery sites.
- WM6** To have regard to the "Major Accidents Directive" (European Council Directive 96/82/EC). This Directive relates to the control of major accidents involving dangerous substances with an objective to prevent major accidents and limit the consequences of such accidents. This objective will be implemented through Development Management, through specific control on the siting of new establishments and whether such a siting is likely to increase the risk or consequence of a major accident.

10.4.2 Litter and Illegal Dumping

The occurrence of illegal dumping and the amount of litter and street cleaning waste generated in the County has been falling. This can be attributed to the National Litter Campaign and increased public awareness. All such wastes are disposed of to landfill and therefore all efforts are required to continue to reduce this form of waste.

Litter and Illegal Dumping Objectives

- LT1** To facilitate the implementation of the County and the local Litter Management Plan.
- LT2** To proactively pursue enforcement and legal action against perpetrators of illegal dumping and 'fly tipping'.
- LT3** To require all new potential litter generating developments (such as shops, takeaways, pubs etc) to provide litter / cigarette bins on or directly adjoining the premises and to provide for the cleaning of the adjoining streetscape in accordance with the provisions of Part II Section 6 of the Litter Pollutions Act 1997 and 2003.

10.4.3 Air Emissions

The Environmental Protection Agency holds overall responsibility for the co-ordination and monitoring of air quality in accordance with EU air quality directives. Damaging emissions in the air can take the form of pollutant gases (for example from car exhausts) and air borne particulates (such as dust). At present, there is a localised effect upon air quality in the town centre area due to traffic emissions. In general, potential concerns in terms of air quality, either from traffic or industrial activities, are greatly reduced by Wicklow-Rathnew's coastal location. The attendant sea winds and air movements generally result in the dispersal of emissions in the town. Air quality in the general study area is not considered to be a significant issue.

Air Emissions Objectives

- AE1** To regulate and control activities likely to give rise to emissions to air (other than those activities which are regulated by the EPA).
- AE2** To require proposals for new developments with the potential for the accidental release of chemicals or dust generation, to submit and have approved by the Local Authority construction and/or operation management plans to control such emissions.
- AE3** To require activities likely to give rise to air emissions to implement measures to control such emissions, to install air quality monitors and to provide an annual air quality audit.

10.4.4 Noise pollution

Noise pollution can be described as unwanted sound that disrupts the activity or balance of our daily lives. There are many sources of noise pollution, most of which are associated with urban development; road, rail and air transport; industrial, neighbourhood and recreational noise.

In Ireland, the principal laws relating to noise are set out in Sections 106, 107, and 108 of Part VI of the Environmental Protection Agency (EPA) Act 1992. Under this legislation local authorities or the EPA are empowered to serve a notice requiring measures to be taken to limit or prevent noise. The local authority has a role in the issuing of noise conditions as appropriate in planning permissions and in the enforcement of any planning permissions granted.

Noise Pollution Objectives

- NP1** To enforce, where applicable, the provisions of the Environmental Protection Agency (EPA) Acts 1992 and 2003, and EPA Noise Regulations 1994.
- NP2** To regulate and control activities likely to give rise to excessive noise (other than those activities which are regulated by the EPA).
- NP3** To require activities likely to give rise to excessive noise to install noise mitigation measures and monitors. The provision of a noise audit may also be required as appropriate.

10.4.5 Light pollution

While the use of artificial light has done much to safeguard and enhance our night-time environment, if it is not properly controlled, obtrusive light (commonly referred to as light pollution) can present physiological, ecological and safety problems. Outdoor lighting, when misdirected towards public roads (light glare), can be a hazard to drivers. Light pollution, whether it keeps you awake through a bedroom window (light trespass) or impedes your view of the night sky (sky glow), is a form of pollution and could be substantially reduced without detriment to the lighting task.

Light Pollution Objective

- LP1** To require proposals for new developments with the potential to create light pollution or light impacts on adjacent residences, public roads and environmentally sensitive areas to mitigate impacts.

10.5 Energy and Telecommunications

The word *energy* is used as a synonym of energy resources, and most often refers to substances like fuels, petroleum products and electricity in general. These are sources of *usable energy*, in that they can be easily transformed to other kinds of energy sources that can serve a particular useful purpose.

Today, we burn fossil fuel, such as coal, oil, and natural gas to make energy. Fossil fuels are non-renewable, that is, they are not replaced as soon as we use them. We therefore face the potential depletion of these resources in the future and the associated risk to security of fuel supply. Furthermore, the combustion of such fuels results in emissions to the atmosphere. It is imperative that our use of and dependence on fossil fuels be reduced. Therefore the development of renewable energy shall be to the forefront in the Councils policy formulation.

The Councils recognise the importance of a high quality telecommunication infrastructure in the context of national, regional and local development. The development of this service is an essential element in industrial, commercial, tourist and social development. The next generation of telecommunication networks is likely to be coming on stream during the course of this plan, such as higher capacity and speed broadband and facilitation of these systems is key goal of this plan.

10.5.1 Energy

The most recent comprehensive data available for energy use in Ireland is from 2007. In that year, the total requirement for all uses of energy including energy used to transform one energy form to another (e.g. burning fossil fuels to generate electricity) and energy used by the final consumer, which is measured in terms of its oil equivalent, was 16.1 MTOE (million tonnes oil equivalent). This energy use is split evenly between the three principal energy users – transport (33%), electricity generation (33%) and heating (34%). Growth in energy demand is forecast to be 2-3% annually to 2020.

The problem is with the source of this energy. In 2007, Ireland was 96% dependent on fossil fuels, 90% of which were imported. This gives rise to two serious problems:

- Ensuring the continued security of energy supply;
- Continued release of CO₂ and pollutants into the atmosphere, with their associated impacts of environmental health and climate change.

These issues in themselves give Ireland the impetus to move away from fossil fuel dependency and to exploit and develop renewable sources of energy. Ireland's commitment to a move to renewables however also stems from its international commitments such as the Kyoto Protocol, European Directives 2001/77/EC¹ and 2009/28/EC for the Promotion of Renewable Energy Sources, which will establish a target of 20% of overall EU energy consumption coming from renewable sources by 2020. The Government have recently revised the target for energy consumption from renewable sources (RES-e) and has increased the target to 40 % by 2020.

Therefore it is imperative to consider both the issues of supply and demand for energy.

Energy Objectives

- E1** To encourage the development of alternative and renewal energy sources, including wind, solar, hydro, bio energy sources, and other energy infrastructure subject to all normal planning considerations, including the protection of environmental and ecological quality and visual amenity.
- E2** To encourage the development of wind energy at suitable locations in the plan area, in accordance with the County Wicklow Wind Strategy and in particular to allow wind energy exploitation subject to:
- The maintenance of a suitable buffers between any wind turbine and any existing residential areas and detailed evaluation and mitigation of potential impacts on any residence within 600m of any wind turbine;
 - Consideration of any Natura 2000 sites and the potential direct, indirect and/or cumulative impact of the proposal on their conservation interests;
 - Impacts on visual, residential and recreational amenity;
 - Impacts on 'material assets' such as towns, infrastructure and heritage sites;
 - Consideration of grid connection issues;

¹ EU target of 21 % of electricity from RES by 2010, Irish target of 13.2% by 2010.

- Best practice in the design and siting of wind turbines, and all ancillary works including access roads and overhead cables.
- E3** To facilitate the development of off-shore wind energy projects insofar as onshore facilities may be required, having regard to the provisions of the National Offshore Renewable Energy Development Plan and subject to all normal planning considerations, and the protection of the conservation objectives of Natura 2000 sites.
- E4** To facilitate the development of solar generated electricity and to positively consider all applications for the installation of PV cells at all locations, having due regard to architectural amenity and heritage.
- E5** To facilitate the development of expanded or new river / lake based hydroelectricity plants, subject to due consideration of ecological impacts, in particular, the free flow of fish, the maintenance of biodiversity corridors and the potential impact, directly, indirectly or cumulatively on Natura 2000 sites.
- E6** To facilitate the development of small-scale electricity generation installations such as solar panels, single stand-alone or wall mounted wind turbines and biomass converters.
- E7** To require all new buildings during the design process to incorporate sustainable technologies capable of achieving a Building Energy Rating in accordance with the provisions S.I. No. 666 of 2006 European Communities (Energy Performance of Buildings) Regulations 2006 and to support a building design that facilitates the achievement of a high rating.
- E8** To support the development and expansion of the electricity transmission and distribution grid, including the development of new lines, pylons and substations as required; to suitably manage development within 35m of existing 110KV/220kV transmission lines and to support and facilitate the development of landing locations for any cross channel power interconnector. All such proposals shall be subject to compliance with the protection of the conservation objectives of Natura 2000 sites in accordance with the EU Habitats Directive.
- E9** To facilitate the development of alternative transport fuels and the development of services and utilities for alternative vehicles types.

10.5.2 Telecommunications

The availability of high quality, high-speed information, telecommunication and broadcasting network is essential to the economic development of the Country. This principally comprises traditional telephone networks, mobile networks and broadband (all of which can carry voice and digital information, including the internet). Such networks not only provide for better communications between individuals and businesses but also provide opportunities to change the way we live and work, including working from home.

Telecommunications Objectives

- ICT1** To facilitate the development and expansion of communication, information and broadcasting networks, including mobile phone networks, broadband and other digital services, subject to environmental and visual amenity constraints.

10.6 Development Management Standards

10.6.1 Water Supply

- Proposed developments connecting to the public water supply shall provide the following information at application stage:
 - Point of connection to existing mains system

- Information on the capacity and supply available at the point of connection
 - Analysis of pressure available
 - Proposals for pressure boosting or on-site water storage as may be required
 - The design of the water supply network on site, which shall be compliant with the specifications of Sections 3 and 4 of *"Recommendations for Site Development Works for Housing areas"* (DoEHLG 1998), as may be revised or amended
- Proposed developments dependent on an existing or new private well source shall provide the following details at application stage:
- Location of water source and aquifer type and vulnerability;
 - Hydrogeological analysis of the water regime in the area, direction of flows, location of possible sources of contamination etc;
 - Measures to ensure the protection of the source;
 - Yield and quality analysis (in accordance with current Drinking Water Regulations);
 - Proposals for a duty and standby well, each with its own submersible pump to ensure security and continuity of supply to the proposed development;
 - Management measures including treatment (where necessary) and ongoing maintenance;
 - Such assessment shall be provided by a recognised hydrogeological professional with professional indemnity insurance.

10.6.2 Water Demand

- The provision of "dual flush" toilets shall be required in all new developments, in accordance with Part G of the Building Regulations (as amended 2008).
- Rainwater butts⁶ shall be installed by the developer for all new residential developments.

10.6.3 Wastewater Systems

- Proposed developments connecting to the public wastewater collection system shall provide the following information at application stage:
 - Point of connection to existing mains system;
 - Information on the capacity available at the point of connection;
 - The design of the wastewater collection system on site, which shall be compliant with the specifications of Sections 3 and 4 of *"Recommendations for Site Development Works for Housing areas"* (DoEHLG 1998), as may be revised or amended;
 - Details of any proposed pumping stations, to include full details of design and operating processes, which accord with the requirements of the Water Services Authority.
- Proposed developments dependent on private wastewater collection and treatment systems shall comply with the appropriate EPA Wastewater Treatment Manual:
 - Persons carrying out a site assessment must submit appropriate background information confirming their competency to carry out the assessment and details of their professional indemnity insurance;
 - Developers of private temporary treatment plants will be required to submit a maintenance contract for the operational lifetime of the plant.

⁶ A water butt is a container for collecting rainwater from the roof and downpipes of a dwelling, which can later be used for gardening etc.

10.6.4 Surface and Storm Water Systems

All new developments shall be designed to ensure:

- The on-site collection of surface water separate from foul water;
- Surface water is appropriately collected on site to prevent flow onto the public roadway, adjoining properties or into the public foul sewer / sewage treatment plant;
- The appropriate on-site disposal of surface water (where the scale and amount of water generated makes this feasible) e.g. through soakpits. For larger scale developments, it may be necessary to demonstrate through soil and subsoil tests that the site is capable of absorbing the surface water generated;
- Where on-site disposal is not feasible and discharge to surface waters is necessary, that the system has been designed in accordance with Sustainable Urban Drainage measures (SUDS) and in particular, that run-off has been attenuated to greenfield conditions;
- Discharges to water courses shall be channelled through adequately sized filters /interceptors for suspended solids and petrol/ oils prior to discharge.

10.6.5 Residential Development

- The design and layout of all individual and multi house developments shall provide for on site waste storage (including recyclables) and composting facilities;
- For traditional housing layouts, this will normally require the inclusion of sufficient space to the side or rear of a dwelling for the storage of waste, including up to 4 wheelie bins (recyclables, glass, organic and residual waste);
- For terraced houses or courtyard type developments (i.e. those developments that include houses with either no / limited private gardens) and apartment developments, bin storage and composting areas shall be provided;
- Waste storage areas shall be designed and screened so as not to cause any adverse visual impact on the proposed complex.

10.6.6 Employment and Commercial Developments

- All commercial developers shall appraise themselves of their obligations under the Waste Management Acts and the Wicklow Waste Management Plan 2006-2011 (and any subsequent reviews) and show at application stage details of waste storage and other waste facilities necessary to meet these obligations. In particular, as appropriate to the type of development:
 - Details of waste storage areas, including areas for the storage of recyclables shall be detailed. Such areas shall be suitably located and screened on site so as to minimise impacts on visual or residential amenity;
 - Developments likely to result in litter generation shall provide and manage litter bins on or immediately adjacent to the site;
 - Records of wastes arising / accidental emissions occurring shall be maintained and made available at any time as required by the Local Authority.
- Where permission does not specify the exact processes to be carried out on a site (e.g. permission for a light industrial development with no specified users), written approval shall be obtained from the Planning Authority for the exact use before such use is commenced. Details shall be provided of effluents, waste products, materials to be used in the industrial process, toxic or hazardous by-products of the industrial process, together with details of the intended means of disposing of effluents and waste materials and controlling toxic or hazardous by-products.

10.6.7 Agriculture

- Agricultural wastes shall be managed in an environmentally sustainable manner in accordance with the principles set by the Rural Environment Protection Scheme, the Farm Waste Management Scheme and relevant EU and national legislation (in particular, the EC (Good Agricultural Practice for the Protection of Waters) Regulations).

10.6.8 Construction and Demolition Waste

Construction Management

All construction sites shall be appropriately managed to ensure that environmental emissions are strictly controlled. This will be enforced by requiring (by planning condition) the agreement and implementation a 'construction and demolition management plan', which will set out detailed measures to manage waste arising from the construction activity. In drawing up such plans, developers should have regard to DoEHLG guidance publication 'Best Practice Guidelines on the preparation of Waste Management Plans for Construction and Demolition Projects' (2006) as may be amended and revised. In particular, such plans will set out:-

- Construction programme for the works
- Hours of operation
- A traffic management plan
- Noise and dust mitigation measures (including details of a truck wheel wash at the site entrance)
- Details of construction lighting
- A Construction Manager will be required to be appointed to liaise directly with the various sections of the Council.

Construction and Demolition Waste Facilities

Applications for the development of commercial waste disposal or recycling facilities catering for the disposal or reuse of inert clean soils, clays, sands, gravels and stones shall only be permitted at appropriate locations and shall be subject to the following:

- It shall be for the disposal of inert clean material only;
- There shall be a proven need for the proposed development;
- The proposed development shall be in accordance with the policies set out in the Wicklow Waste Management Plan;
- The proposed development shall not be located on lands that have a negative impact on the surrounding landscape or near a designated Natura 2000 site, or which interferes with a protected view or prospect, a public right of way, an existing or planned piece of strategic infrastructure, or an important tourist site;
- A development shall not be permitted if it has a detrimental impact on the amenity of adjoining residents, by reason of unacceptable levels of traffic, noise, dust, lighting or other impact resulting from the operation of the facility;
- A development shall not be permitted if it has a detrimental impact on the flora and fauna, ecology, ground and surface water, air quality, and geological/ archaeological heritage of the area;
- The development shall not result in the creation of a significant traffic hazard and the road network is suitable and has the capacity for anticipated traffic levels.

It should be noted that this policy pertains to an inert clean waste disposal facility only, and does not relate to any ancillary activities pertaining to the operation of sorting, manipulation and recycling of other wastes.

A detailed phasing programme for the importation of material, to include details of the volume of material to be included in each phase, cross sections of each phase of operation, the construction of slopes or banks in each phase, details for the seeding and capping of each phase, details pertaining to the impact on the landscape at each phase and landscaping details for the final phase of site restoration must be submitted.

10.6.9 Air emissions

Dust

- Any activities likely to give rise to dust emissions (e.g. construction activities, extractive industry) shall make suitable arrangements, and take precautionary measures, to suppress and control dust arising from the activity or the handling and transportation of materials. The deposition of dust on surrounding lands, or spillage onto public roads shall be prevented at all times;
- Dust levels emanating from any site shall not exceed 350 milligrams/square metre per day averaged over a continuous period of 30 days, measured as deposition of insoluble particulate matter, at any position along the site boundary.

Particulates

- The concentration in ambient air of PM10 at any sensitive / residential receptor shall not exceed the quantity specified in a schedule to the Air Quality Standards Regulations 2002, and which is not to be exceeded for the period and under the conditions specified in the schedule in relation to that pollutant.

Noise

- The noise level arising from any development shall not exceed 55 dB(A) Leq (1 hour) with a maximum peak of 65 dB(A) between 0800 to 1800 hours, Monday to Saturday inclusive, but excluding public holidays, when measured at the closest residence. At all other times the noise level shall not exceed 45 dB(A) Leq (1 hour) measured at the same locations. No pure tones should be audible at any time;
- As and when required by the Planning Authority, a survey of noise levels at monitoring stations on adjacent properties (to be agreed with the Planning Authority) shall be undertaken by an agreed professional (at the expense of the developer) and the results submitted to the Planning Authority within one month of such a request.

The results of such surveys shall include, inter alia:-

- i. Type of monitoring, equipment used, sensitivity or calibration evidence, and the methodology of the survey.
- ii. Prevailing climatic conditions at the time of the survey.
- iii. The time interval over which the survey was conducted.
- iv. What machinery was operating at the time of the survey.

Light

- Applications for permission which include the provision of new street lighting or significant on site / on building lighting shall be accompanied by a certificate from a suitably qualified professional in the field confirming that all lighting has been so positioned and designed to eliminate or mitigate impacts on adjoining properties, particularly residences (light trespass) or on the night sky (sky glow). Regard shall be taken of **Guidance Notes for the Reduction of Light Pollution** (Institute of Lighting Engineers, 2000);
- All external lighting attached to buildings shall be cowled and directed away from the public roads and adjacent dwellings;
- To preserve the character of the night time landscape, roads in rural areas should use the minimum amount of lighting necessary, restricted to critical intersections. Passive measures, such as cat's eyes and reflectorised markings, should be preferred as night time safety guides.

10.6.10 Contaminated Land

Applications for the development of sites where soil or groundwater contamination is evident or is known to have occurred, or sites where a previous or current activity is at high risk of causing contamination, shall be accompanied by such documentation and investigations as appropriate to identify the nature and

extent of the contamination and necessary measures required to contain and redress previous contamination and to prevent new contamination.

10.6.11 Design Standards for Improved Energy Efficiency

‘Energy efficiency’ in building design relates to (a) reducing the amount of energy used in the building and (b) increasing the use of renewable sources of energy. There are a number of ways in which both can be achieved:

- High quality insulation, which will minimise heat loss and therefore reduce demand for heat generation;
- The use of energy efficient lighting, which includes not only the use of energy efficient long life bulbs but also the installation of devices to control use of lights such as light movement sensors;
- The use of energy efficient appliances;
- In use of renewable energy technologies such as
 - Solar panels (for either or both water heating and for the generation of electricity)
 - Biomass burners, such as wood pellet boilers (again which can generate both heat and electricity)
 - Small scale wind turbines.

Even without these technologies, measures can be taken through siting and design to reduce energy use. The following are the main principles of Passive Solar Design (PSD) which should be integrated into the design process:

- Building location – where there is a choice in location, consideration should be given to the ability of any site to make use of sunlight for passive space heating;
- Orientation - the capture of solar gain can be maximised by orientating the main glazed elevation of a building within 30 degrees of due south;
- Room layout - placing rooms used for living and working in the south facing part of the building, to reduce reliance on artificial lighting and heating methods;
- Avoidance of overshadowing - careful spacing of buildings will minimize overshadowing of southern elevations, particularly during the winter when the sun is low;
- Window sizing and position – sizing and positioning windows to maximise gain from the sun, while minimising windows on other elevations. The precise amount of glazing utilised should be based on considerations of latitude, altitude, climatic conditions and heating / cooling requirements. Care is needed to avoid ‘over-glazing’ resulting in overheating / glare / fading of furnishings and heat loss when ambient temperatures fall;
- Ventilation and shade – to use natural ventilation or heat exchange system in order to avoid the need to install air conditioning;
- Thermal buffering - unheated spaces such as conservatories, green houses and garages attached to the house can act as a barrier to unwanted heat loss or gain in the main living area;
- Excessively large open spaces within the building should be avoided as this may lead to unequal distribution of warm air between upper and lower floors as air rises;
- Exterior finishes – materials and colours can be chosen to reflect or absorb solar thermal energy;
- Landscaping – energy efficient landscaping materials, including the use of trees, plants, hedges or trellis can be used to selectively create summer shading and also create winter wind chill shelter.

10.6.12 Masts and Telecommunications Development Standards

These standards deal with those telecommunications installations which form part of the requirements for licensed, public mobile telephony and which are considered to be development in accordance with the Planning & Developments Acts. Operators of broadcast VHF and fixed radio link installations, which support the mobile radio requirements of the emergency services, should, where applicable, take cognisance of these standards.

Need for the new installation

All applications for new antennae shall be accompanied by adequate information to show that there is a requirement for the new installation. In particular, the following information shall be provided;

- Map of the area concerned (minimum 10km radius) showing all antennae operated by the applicant and the applicant's existing coverage in that area;
- Details of antennae operated by other providers in the area and their associated coverage maps;
- Details of the area to be covered by the proposed antennae and technical explanation of the reasons why coverage cannot be provided by existing antennae.

Location

Where it has been proven that there is a need for new / expanded coverage in a particular area, the applicant shall show that all existing masts and support structures in the area have been firstly examined to determine if the attachment of new antennae to existing support structures can provide the coverage required. This will require the submission of:

- A map of all existing support structures in the vicinity of the coverage 'gap';
- A technical evaluation of the capabilities of these masts to take additional antennae and provide the coverage required.

Once it has been determined that new antennae / antennae support structures are required and co-location on an existing support structure is not feasible, permission will be considered for new support structures and associated base stations subject to the following control criteria.

Locations in Settlements

The applicant shall be required to follow a 'sequential' approach to site location i.e. in accordance with the order of priority set out to follow, the applicant must show that the preferred locations have been examined in the first instance and rejected for specified reasons (commercial competition in this instance will not be acceptable as a reason) and only then, can locations further down in the hierarchy be considered:-

- 1) Clustering with existing support structures;
- 2) In industrial estates or on industrial zoned lands;
- 3) Rooftop locations in commercial / retail zones;
- 4) In parks / open space areas ('disguised' masts may be requested in such areas).

New support structures shall not be permitted within or in the immediate surrounds of a residential area or beside schools.

Impacts on protected structures, Architectural Conservation Areas, National Monuments or other building / sites of heritage value shall be considered.

Rural Locations

- Masts and base stations should be sited in a manner which respects the landscape and which limits the intrusion on the landscape. Notwithstanding coverage obligation issues:
 - Hilltops shall generally be avoided, except in exceptional circumstances, where technical or coverage requirements make it essential;
 - Locations in the direct line of listed views or prospects shall be avoided;
 - Along major tourist routes, care shall be taken to avoid terminating views
- The location of structures, archaeological sites and sites designated for nature conservation reasons (e.g., NHAs, SACs, SPAs) shall be considered against the conservation objectives of these sites;
- Forested locations are likely to be preferable, subject to the nature of the forestry and its felling programme. In such cases, the applicant must be in a position to maintain a suitable cordon of trees around the site and bonded undertakings to that effect will be required to be submitted;
- Unless otherwise advised through pre-planning discussions, a visual impact assessment shall be submitted with any application, which shall address, inter- alia,
 - Landscape and topography, elevation and overall visibility;

- Any listed views or prospects in the area;
- Intermediate objects (e.g. buildings or trees) between the site and the principal viewing locations;
- The scale of the object in the wider landscape;
- The multiplicity of other objects in the wider panorama;
- The position of the object with respect to the skyline;
- Weather and lighting conditions.

Access Roads and Power Supply

- Access roads and new overground power lines shall be permitted only where they are absolutely necessary and great care should be taken that they would not appear as a scar on a hillside;
- It will normally be a condition that access roads are grubbed up at the end of the construction period. In exceptional cases, the Planning Authority can consider requiring the use of a helicopter for the construction and installation of base stations.

Mast / Antennae Design

- Subject to visual and landscape considerations, support structures will normally be required to be so designed as to facilitate the attachment of additional antennae. Where such a design is facilitated, it will be a condition of any permission that the mast be made available for collocation with other operators;
- Support structures shall be so coloured as to minimise visual impact – in forestry areas, dark green will normally be required whereas those structures that would be visible against the skyline will normally be required to be a neutral sky grey;
- Whilst the design of the antennae support structures and the antennae themselves will be dictated by radio and engineering parameters, all applicants will be asked to explore the possibilities of using other available designs where these might be an improvement on traditional design;
- While it is acknowledged that there is a trade off between height (taller height implying better coverage) and the number of masts required for network coverage, in all cases, height shall be restricted to that required to bridge the existing coverage gap identified. Alternatively, consideration may be given to higher masts if this would allow for an overall reduction in masts in any given area.

Site Layout / Design

- Support structures, associated antennae and base stations shall be designed to minimize visual intrusion. In particular, height and width of the mast shall be kept to a minimum, subject to coverage considerations;
- In built up areas, monopole structures may be preferable, subject to consideration of future co-location demands;
- Site boundaries shall be suitable to the location. In particular, palisade type metal fencing will generally not be considered appropriate in built up areas – render or stone clad solid walls will normally be required;
- Landscaping shall be integrated into the scheme in both urban and rural locations;
- The number of ancillary buildings / containers shall be kept to a minimum, with all such structures proposed being clearly justified. Such structures shall be painted or clad in a material / colour suitable to the location.

Safety Criteria

- As part of their planning application, applicants will be required to furnish a statement of compliance with the International Radiation Protection Association (IRPA) Guidelines (Health Physics, Vol. 54, No. 1(Jan) 1988) or the equivalent European Pretender 50166-2 which has been conditioned by the licensing arrangements with the Departments of Transport, Communications, Energy& Natural Resources and to furnish evidence that an installation of the type applied for complies with the above Guidelines;
- Where the applicant proposes to share an existing mast or to enter a clustering arrangement on an existing site, a statement from the owner/landlord of the mast or site that the shared mast or cluster

will continue to operate under the guidelines applicable to it should be presented to the Planning Authority;

- The results of monitoring, shall, if required, be made available to the Council and through the Council to the members of the public;
- Safety aspects of the antennae and support structures will, unless perhaps in the case of ground mounted single poles, stayed or otherwise, involve anti climbing devices and proper ducting and insulation measures for cables;
- During construction of the site, special precautions may have to be taken in relation to traffic.

Obsolete Structures

- Where the original operator is no longer using the antennae and their support structures and no new user has been identified they should be demolished, removed and the site reinstated at the operators expense (This will be a condition of any permission and a bonding arrangement to this effect will be put in place);
- Where the owner of a site disposes of the site to another suitably licensed operator, the original operator/owner will be required to inform the Planning Authority of such transfer so that the Authority may be in a position to readily enforce any continuing conditions on the new operator.

Duration of Permission

- Permissions for antennae support structures and associated base stations shall only be granted for 5 years;
- Further permissions for the facility at the end of the 5 year period shall be conditional on the provision of evidence, as necessary, to justify the continued need for the facility, given changes in technology and development of other sites in the meantime;
- Where a subsequent permission does not include any alterations to the permitted facility, the applicant shall be required to show that no new changes in technology have come about that would allow the design (height, width, number of antennae etc.) or environmental impacts of the installation to be improved;
- The Planning Authority shall apply more stringent conditions on any subsequent permission for the same site, if considered necessary.