PUBLIC UTILITIES

CHAPTER 8

PUBLIC UTILITIES

Sanitary Services

8.1 Introduction

This section deals with the provision of sanitary services facilities including water, drainage and wastewater treatment and waste management. The policies and objectives of Drogheda Borough Council as they affect the above matters in the context of the Development Plan are then set out.

Drogheda has witnessed high levels of growth in recent years and this has led to increased pressure for residential and other developments. There are segments of the zoned land within the Borough that do not yet have the necessary infrastructure to accommodate development. Pressure has continued to grow for the provision of additional and upgraded infrastructure for these areas within the Borough of Drogheda and in areas of the adjoining local authorities adjacent to the Borough and the new M1 motorway. The provision of the necessary infrastructure is a prerequisite to development.

8.2 Sanitary Services - Drainage

The Drogheda Main Drainage Scheme including the Newtown Pumping Station and the Waste Water Treatment Plant on the Marsh Road are completed and are in operation since 2001. The wastewater treatment plant has been constructed to its Phase 1 design capacity of 67,000pe and currently meets the towns wastewater drainage needs. This plant also treats effluent from parts of east Meath and south Louth. However, to accommodate and facilitate further development of parts of east Meath and south Louth it will be a requirement to extend the plant to its Phase 2 design capacity of 101,000pe. Tender documents regarding the Phase 2 extension to the treatment plant have been approved by the Dept. of Environment, Heritage and Local Government. It is envisaged that this extension will be constructed and in operation during the lifetime of this Plan.

Under the Drogheda Main Drainage Scheme a large diameter pipe was installed along both the north and south sides of the River Boyne to intercept all foul effluent flows that previously discharged to the river. The effluent is now conveyed to the wastewater treatment plant for treatment. The main drainage scheme did not include the upgrading/renewal of the existing main drainage network that extends through the Borough outwards from the river. It will be necessary for Drogheda Borough Council to initiate a comprehensive condition survey of the complete existing drainage network within the Borough to facilitate in a future maintenance and renewal/upgrading programme.

Water quality in the River Boyne will continue to improve since the completion of the Drogheda Main Drainage Scheme and the operation of the Waste Water Treatment Plant in 2001. The completion of these works has a major influence in improving the water quality and aesthetics in the town with resultant amenity and economic benefits. This improvement will provide an opportunity of developing the river from an amenity point of

view for tourism, river walks and boardwalks and generally for water frontage development and living.
The effluent discharge from the wastewater treatment plant must continue to comply with the requirements of the EU Urban Waste Water Treatment Directive.

Policy
In terms of Drainage it is the policy of Drogheda Borough Council:

- **To continue to develop and expand, in a sustainable manner, the foul and surface water drainage system for the Borough in co-operation with the adjoining local authorities, where required, in order to facilitate the supply of serviced land for residential, commercial and industrial development in the Borough.**

- **To provide wastewater treatment facilities to cater for the growth in demand from residential, commercial and industrial development in the Borough and to maintain within acceptable limits wastewater contamination of the River Boyne.**

- **To promote the use of Sustainable Urban Drainage Systems, which balance the impact of urban drainage through the achievement of control of run-off quantity and quality and enhancing amenity and habitat.**

- **To apply the precautionary principle against the development of lands where such development would, in the opinion of the Planning Authority, be on a natural floodplain or likely to cause or exacerbate a risk of flooding to other developments and/or locations.**


Drogheda Wastewater Treatment Plant

OBJECTIVES;
In terms of Drainage it is an objective of Drogheda Borough Council:

- ***SAN 1***
  To eliminate as far as it is practicable to do so, surface water from wastewater sewerage network.

- ***SAN 2***
  In conjunction with the adjoining local authorities, to extend the existing wastewater treatment plant up to 101,000pe.

- ***SAN 3***
  To co-ordinate the laying of new foul and surface water drainage infrastructure to serve areas within the Borough and/or to interconnect with adjoining local authorities to facilitate development, such as the Leonards Cross area, the North Road/Moneymore area and the Termonfeckin Road - Newtown Road Link Road area.

- ***SAN 4***
  To discourage the use of pumping stations to service new developments, except in the case where a substantial sub-catchment will become serviceable and where the entirety of the sub-catchment is zoned for development.

- ***SAN 5***
  To carry out a review of the existing drainage information and data within the Borough and to initiate a comprehensive condition survey of the complete existing drainage network within the Borough to facilitate in a future maintenance and renewal/upgrading programme

- ***SAN 6***
  To apply a general presumption against the granting of planning permission within the Borough for single dwellings and developments served by way of individual effluent treatment systems, other than in exceptional circumstances. Poorly managed septic tanks can lead to localised water pollution and in turn impact upon ground water supplies.

8.3 Sanitary Services – Water Supply

The majority of Drogheda's potable water is supplied mainly from the Staleen Water Treatment Plant near Donore, some 5km from the town. The raw water is abstracted from the River Boyne at Roughgrange in Co. Meath and is pumped up to the elevated site of the water treatment plant located in Staleen. The capacity of the Staleen plant is 32,000m^3/day and the plant is currently producing in the order of 28,500m^3/day of treated water. Over half the volume of water treated at present in this plant is exported to Co. Meath and is directly fed into the water distribution networks in areas of Duleek, Bettystown, Laytown, Ashbourne and Dunshaughlin. The remaining water volumes serve the distribution networks of Drogheda Borough Council and parts of Co. Louth such as Termonfeckin and Clogherhead. At the Staleen Water Treatment Plant the raw water from the River Boyne is settled, followed by rapid gravity filtration, disinfected and fluoridated before being fed into the water distribution networks.

The Staleen public water supply is supplemented by water taken from two impounding reservoirs at Barnattin and Killineer and treated by slow sand filters at the Rosehall Water Treatment Plant (WTP) located on the north side of the town. The Rosehall WTP is capable of supplying up to 2,400m^3/day. However during dry spells, this plant occasionally needs to be taken out of operation to allow recovery and this can take several months depending upon the prevailing weather conditions.

The Staleen Water Treatment Plant is currently operating at 90% capacity and will be insufficient to accommodate and provide for the drinking water demand requirement for the areas supplied over the lifetime of this plan. In this regard consulting Engineers P.H. McCarthy & Partners / P.J. Tobin Joint Venture were appointed by Co. Meath (on behalf of Drogheda Borough Council, Louth Co. Co. & Meath Co. Co.) to prepare a preliminary engineering report entitled *'East Meath, South Louth & Drogheda Water Improvement Scheme*' to address this infrastructural constraint. This report was issued in September 2004. The report indicates that to accommodate future demands for the next 20 years, it will be essential to maximise the use of existing sources together with the development of new ones. The report also identifies he strategic requirements in the water distribution network, the storage and the treatment facilities to ensure water supply to customers within the area. Measures will need to be implemented by Drogheda Borough Council and the adjoining local authorities to ensure and safeguard the water supply over the lifetime of this plan.

Drogheda Borough Council, in conjunction with Louth County Council, will be initiating a Water Conservation Programme during the period of this Plan. In this regard, specialist consultants have been appointed to oversee a countywide water conservation programme.

The quality of the potable water supplied from both the water treatment plants must meet the standards set down in the European Communities (Quality of Water Intended for Human Consumption) Regulations 1988, as governed by EU Directive 80/778 EEC on Drinking Water Quality. The 1988 Regulations will be superseded by the European Commission (Drinking Water Regulations 2000 (SI No 439) as governed by EU Council Directive 98/83/EC. These new regulations have been effective since 1st January 2004. Drogheda Borough Council will be continuing with the implementation of measures to improve water quality at the water treatment plants.

Drogheda Borough Council are also committed to implementing the Water Services Pricing Policy which is Government policy to meter and charge all non domestic users of public water by 2006. This will encourage water conservation and reduce demand on the water supply network.

Policy

In terms of Water Supply it is the policy of Drogheda Borough Council:

- **To implement measures to ensure that the quality of treated drinking water supplied to all of its customers is in compliance with the Water Quality Directives of the EU and national legislation.**
- **To maintain, upgrade and improve the water supply and distribution system, as required, serving the Borough.**
- **To continue to develop and expand, in a sustainable manner, the water distribution network for the Borough, in co-operation with the adjoining local authorities where required, in order to ensure that an adequate, sustainable and economic supply of piped water of suitable quality is available for residential, commercial and industrial development in the Borough and the environs.**

Water Supply Policy (Contd.)

- **To implement a Water Conservation Programme in order to conserve valuable water resources by reducing wastage.**
- **In conjunction with adjoining local authorities, to implement a strategy to ensure the development of water systems and to provide for the expansion of water systems to meet anticipated demand for the Borough and its environs.**
- **To ensure that all costs associated with the provision of water and the collection and treatment of wastewater to/from non-domestic customers are recovered from those in accordance with the polluter pays principle.**

Objectives

In terms of Water Supply it is an objective of Drogheda Borough Council:

- ***SAN 7***

  To implement the key findings and recommendations of the 'East Meath, South Louth & Drogheda Water Improvement Scheme Report' (September 2004) for a water supply scheme to serve the area.

- ***SAN 8***

  To continue the programme of monitoring the public water supply to ensure compliance with Drinking Water Quality legislation.

- ***SAN 9***

  To initiate a Water Conservation Programme in the Borough.

- ***SAN 10***

  To implement the Water Services Pricing Policy in respect of all non-domestic consumers and to recover all attributable costs associated with maintenance and upgrading of supplies and networks through implementation apportioned on the basis of usage of the services.

- ***SAN 11***

  To ensure that in accordance with EU and Government Policy directives the water supply to all non-domestic properties shall be metered by 2006.

- ***SAN 12***

  To continue with the updating and improving of the existing water mains records and data within the Borough.

- ***SAN 13***

  To co-ordinate the laying of new trunk water mains to serve areas within the Borough and to interconnect with adjoining local authorities to facilitate development, such as the Leonards Cross area, the North Road/Moneymore area, the Termonfeckin Road - Newtown Road Link Road area, the Marsh Road to Borough Boundary and Bryanstown Cross Route to Marsh Road.

8.4 Solid Waste Management

Waste Management is one of the most controversial and problematic environmental issues facing Local Authorities throughout the country. The Waste Management Plan for the North East Region aims to improve waste management in the region in line with government policy. It is an integrated waste management strategy for the region in accordance with the Waste Management Act 1996, which requires adherence to a 'waste hierarchy'. This hierarchy places the greatest emphasis on prevention and minimisation of waste production, followed by re-use, recycling and recovery (including energy recovery), with disposal to landfill as the lowest preference. The waste hierarchy deals with all types of waste, from household, commercial, and agriculture to construction and demolition waste.

In an attempt to conform to National and European policy Drogheda Borough Council has introduced a number of environmental initiatives. There are currently 10 recycling 'bring bank sites' strategically located throughout the town at Ballsgrove Shops, Wheaton Hall Shops, Platin Road/Industrial Estate, Mell Car Park, Murdocks Car Park, King Street Car Park, Bolton Street Car Park, McMahons Timber Yard, Moneymore, McCabes Garage, North Road and the Old Hill Car Park, Drogheda to which the public can bring their recyclable domestic refuse. In general glass, plastic containers and cans are accepted at these sites. Drogheda Borough Council will endeavour to locate additional sites as is necessary throughout the town.

Furthermore, householders within the Borough have access to the 'Green Bin' kerbside collection system. Householders are now able to put their dry recyclables (newspapers,

magazines and cans) into a green bin that they have received from their waste service operator, which is collected on a monthly basis.

The old landfill site on the Collon Road is closed. However, Drogheda Borough Council will be continuing with the monitoring requirements in accordance with the EPA Licence. Furthermore Drogheda Borough Council will be carrying out the capping and restoration plan for the landfill site.

Drogheda Borough Council are currently developing a proposal to construct a purpose built recycling centre, Civic Amenity Centre, in the vicinity of the old landfill site on the Collon Road. The Civic Amenity Centre will facilitate the general public in the disposal of a wide range of large and small items such as green, brown and clear glass, newsprint, magazines, cardboard and cardboard packaging, mixed paper, food and drink cans, plastic bottles and bags, reusable clothing, household batteries, lead acid car batteries, fluorescent tubes and lamps, waste oils, white goods, timber, electronic goods, garden waste and scrap metal.

In addition, home composting units are available through the Borough Council. To date Drogheda Borough Council has provided approximately 300 of these units to the general public.

Policy

In terms of Waste Management it is the policy of Drogheda Borough Council:

- **In conjunction and co-operation with Louth Co. Co. to promote the implementation of the Waste Management Plan for the North East Region.**
- **To promote the development of facilities in accordance with the waste hierarchy principle, which involves a shift towards preventative and waste minimisation measures, while developing recycling and reuse, disposal with energy recovery and, as the last option, disposal of residual waste to landfill.**
- **To liase with and encourage private sector, semi-state and voluntary groups to actively pursue initiatives, which involve recycling and/or reuse.**
- **To encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials in future construction projects.**
- **To ensure that effect is given as far as is possible to the polluter pays principle in relation to waste management.**

Objectives

In terms of Waste Management it is an objective of Drogheda Borough Council:

- ***SAN 14***

  In conjunction with Louth Co. Co. to continue to expand environmental awareness initiatives designed to create increased public awareness of waste prevention minimisation and reuse.

- ***SAN 15***

  To provide a Civic Amenity Centre within the Borough.

- ***SAN 16***

  To carry out the restoration and capping plan for the old landfill site on the Collon Road and to continue with the monitoring requirements in accordance with the EPA Licence issued for the site.

- ***SAN 17***

  In conjunction with Louth Co. Co. to ensure that no development shall commence (apart from a new single dwelling or extension to an existing dwelling) prior to the submission of a Waste Management Plan. The plan, as a minimum, shall include a provision for the management of all construction and demolition waste arising on site and shall make provision for the appropriate waste storage facilities in the proposed development and adequate access to those facilities.

8.5 Flood Risk and Development

Introduction

The underlying causes of flooding, heavy rain and high sea levels are essentially uncontrollable. However, some of the factors that influence the extent and severity of the flooding attributable to these causes can be addressed. The most influential of these factors is development, in particular development in flood plains i.e. areas adjacent to rivers that tend to become flooded following periods of heavy rain. Historic records will help to indicate which areas might be prone to flooding, although it is always possible that areas not known to have flooded in the past or for which no records of flooding are available, might flood in the future due to changes in upstream or downstream conditions or the occurrence of a more extreme rainfall event.

The risk of flooding will be considered in all cases where development is being considered, in the interests of individuals proposing the development and of the public in general.

8.5.1 Impact of Flood Risk on Development

Locating development in an area at risk from flooding can lead to property damage, human stress and hardship, problems obtaining property insurance and consequential demands for the expenditure of local authority or central government resources on flood protection works. The construction of protection works either at the time of the development, or at a later date, will incur additional costs, may not provide absolute immunity from the risk of flooding and can, if not appropriately designed, have detrimental effects on flood risk elsewhere.

8.5.2 Impact of Development on Flood Risk Upstream

In times of flood, the river flows not only through its normal channel but also along the flood plains. Any constriction of the natural flow path can 'back-up' the river and lead to increased flood levels upstream. The construction of buildings or houses, and particularly embankments for infrastructure or protection, in or across a floodplain can therefore not only put the development itself at risk of flooding, but can also increase the flood risk for land and properties upstream. The same is obviously true of any construction in, or encroachment into, the normal river channel.

8.5.3 Impact of Development on Flood Risk Downstream

Natural or agricultural land, such as forests, woodland, pastures or crop fields, is normally able to absorb a considerable proportion of any rain that falls onto it. Covering such land with buildings, tarmac (such as for parking areas or roads), or other impermeable materials significantly reduces this ability to absorb rainfall, and will lead to increased land runoff. As a result, large developments, including those away from major rivers, can increase river flows and the risk of flooding to land and property downstream. A number of smaller developments built up over a period of time can have the same effect.

8.5.4 Impact of Tidal Flood Risk on Development

A combination of high tides, waves, high winds and surges developed from low-pressure systems can lead to extensive flooding. Current predictions of climate change indicate that the risk of flooding from the sea will increase in the future. Any area below current or predicted future peak sea levels, including areas behind existing defences that offer only a certain level of protection, are at risk from flooding in the future.

8.5.5 Impact of Possible Climate Change

Current predictions of climate change in Ireland indicate that winters will become wetter and the rainfall distribution 'stormier', and that sea levels will rise. This would mean that areas not currently prone to flooding may be at risk from flooding in the future.

Policy

- **It is the policy of Drogheda Borough Council that new developments, either individually or cumulatively should not be subject to an inappropriate risk of flooding. In addition it is a policy of Drogheda Borough Council that new development should not exacerbate the risk of flooding at other locations.**