

CHAPTER 8

Water, Drainage & Environmental Services



Water, Drainage & Environmental Services

Aim: To develop, protect, improve and extend water and wastewater services throughout Naas and to prioritise the provision of water services infrastructure to complement the overall strategy for the economic and population growth of the town.

8.1 BACKGROUND

The capacity of Naas to accommodate future development is partly dependent on constraints and limitations in the provision of adequate supplies of water and drainage facilities. Naas' position within the Greater Dublin Area and its role as a Large Growth Town with a population target of 27,933 by 2017 in addition to its role as an economic driver for the county, should lead to further growth during the period of the Plan. The Core Strategy for Naas identifies a need to accommodate an additional 3,600 housing units by 2017. This level of growth, which does not include parallel commercial development, highlights the need for continued investment in the infrastructure of the town and its surrounding area.

Naas is inextricably linked and dependent on strategic national/regional solutions to the provision of future water and wastewater infrastructure. The development of new regional water supply sources and the implementation of the recommendations of the Greater Dublin Strategic Drainage Study are central to the long term sustainable development of the town.

8.2 POLICY/LEGISLATIVE CONTEXT

The provision of water, drainage and environmental services infrastructure in Naas must have regard to relevant policy/legislation.

8.2.1 Water Services Act (2007)

The Water Services Act 2007 provides the legislative framework in relation to the planning, management and delivery of water supply and wastewater collection and treatment services. The Act incorporates a comprehensive review, update and consolidation of all existing water services legislation and facilitates the establishment of a comprehensive supervisory regime to ensure compliance with specified performance standards.

Other legislative provisions which the Council must comply with include;

- Drinking Water Regulations 2007
- Waste Water Discharge Regulations 2007
- Urban Wastewater Regulations 2001

8.2.2 Water Framework Directive (2000)

The EU Water Framework Directive, Directive 2000/60/EC, was adopted in 2000 as a single piece of legislation covering rivers, lakes, groundwater transitional (estuarine) and coastal waters and includes heavily modified and artificial waterbodies. Its objectives include prevention of the further deterioration of and the protection, enhancement and restoration of the status of all bodies of water with the aim of achieving at least "good" ecological status by 2015.

8.2.3 Protected Areas in the Eastern River Basin District

Within the Eastern River Basin District there are a number of areas that have special status for environmental reasons. Many of these areas are designated at European level (for example Special Protection Areas under the Birds Directive). There are also nationally designated areas such as Natural Heritage Areas. These protected areas come under the responsibility of the National Parks and Wildlife Service and are listed in the relevant River Basin Management Plan prepared under the Water Framework Directive.

8.2.4 Greater Dublin Strategic Drainage Study (2005)

The Greater Dublin Strategic Drainage Study investigated sewerage, drainage and river systems in the Greater Dublin Area to 2031. The study identified new practices, processes and techniques to take advantage of the latest developments in hydraulic monitoring, geographical information systems and database management. The study recommended that regional and local policies should incorporate up to date and best practice in drainage design, operation and management. A co-ordinated regional approach is required to deliver on the recommendations of the strategy.

8.2.5 The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009)

The Guidelines introduced comprehensive mechanisms for the incorporation of flood risk identification assessment and management into the planning process. Implementation of the Guidelines will be achieved through actions at national, regional, local authority and site specific levels. Flood risk management should be integrated into spatial planning policies at all levels.

The Guidelines require planning authorities to;

- Avoid development in areas at risk of flooding, particularly flood plains, unless there are proven sustainability grounds that justify appropriate development and where flood risk can be reduced or managed to an acceptable level, without increasing flood risk elsewhere;
- Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, substitution, justification and mitigation of flood risk;
- Incorporate flood risk assessment into all stages of the planning process;
- Carry out a Strategic Flood Risk Assessment in accordance with the guidelines for the Naas Town Development Plan 2011-2017

A Draft Strategic Flood Risk Assessment (SFRA) has been prepared in conjunction with this Plan and the recommendations of the SFRA have been incorporated into this Plan.

In addition planning authorities are required to assess planning applications for development in accordance with the provisions of the DoEHLG Guidelines, "The Planning System and Flood Risk Management Guidelines for Planning Authorities" (2009) local authority policies and any OPW Catchment Flood Risk Assessment and Management (CFRAMS) Studies in which the functional area of Naas is included. The studies will deliver Flood Mapping by 2013 and Flood Risk Management by 2015.



8.2.6 Regional Planning Guidelines for the Greater Dublin Area (2010-2022)

Continued investment in waste water treatment is required during the life of the RPGs;

- To ensure high water quality standards to meet the Water Framework Directive targets,
- To ensure necessary new economic and housing developments can take place in the most optimal locations.

Local Authorities are advised to assess existing systems on a catchment basis and identify funding for the renewal, upgrading and replacement of surface water infrastructure where needed to meet existing and future demands.

Local Authorities are advised to take account of the issues raised in the Regional Flood Risk Appraisal and the Department of the Environment, Heritage and Local Government "The Planning System and Flood Risk Management –Guidelines for Planning Authorities (2009)" referred to above

8.3 STRATEGY

The development of a sustainable water supply, wastewater and drainage service in Naas seeks to provide for high quality and efficient water supply, drainage and other infrastructure. In this regard the strategy seeks to preserve the capacity of water and wastewater services primarily for the use of developments within Naas and to make provision for improved and additional wastewater services on a planned basis, in accordance with the present and future needs of housing, industry and commerce in Naas. The strategy further seeks to manage areas that are considered to be at potential risk of flooding or are likely to pose a significant flood risk in the future.

8.4 WATER SERVICES INVESTMENT PROGRAMME – ASSESSMENT OF NEEDS 2010-2012

Local Authorities are required to prepare an “Assessment of Needs” for water services capital works in their areas at regular intervals. This highlights the strategic context within which the county is set and the current constraints facing the county particularly in relation to water supply and wastewater treatment. These assessments provide the basis for scheme approval and scheduling under the Water Services Investment Programme. In 2009 a ‘Needs Assessment’ was prepared by Kildare County Council, which will inform the Water Services Investment Programme for the period 2010 – 2012.

A list of priority projects has been drawn up and submitted to the Department of the Environment, Heritage and Local Government for consideration. The upgrade of the Osberstown Waste Water Treatment Plant is top of the Council’s priority list.

8.5 PROVISION OF INFRASTRUCTURE

Kildare County Council, being the Water Services Authority for Naas, is responsible for providing and maintaining adequate public water supply and waste water infrastructure throughout the town and continues to invest in the improvement of the existing water supply and wastewater treatment, in accordance with the Water Services Investment Programme.

8.5.1 Water Supply

At present, Naas town’s daily water demand is in excess of 9,000 cubic metres and is supplied from Dublin City Council’s Ballymore Eustace Water Treatment Plant. Work to increase the capacity of the Ballymore Eustace Plant was completed in 2007 by the construction of a new trunk main laid from Ballymore Eustace to Naas via Dowdenstown Reservoir, and by the laying of an orbital watermain, built in conjunction with the construction of the Naas Ring Roads.



8.5.2 Wastewater Treatment

Naas town’s wastewater is collected via a gravity and rising mains network and is treated at Osberstown Wastewater Treatment Plant which also serves the towns of Newbridge, Kilcullen, Sallins and Kill. The plant has an existing design capacity of 80,000 population equivalent (PE) and is currently operating at or close to capacity.

The Council is seeking to address the capacity constraints at Osberstown Wastewater Treatment Plant as a priority to facilitate development particularly within Naas. It is envisaged that the earliest date for completion of Phase 1 (increase in capacity to 100,000 PE) would be 2013 with Phase 2 (increase in capacity to 130,000 PE) by 2014.

The provision of additional treatment and network capacity in the Osberstown catchment is imperative to address current water quality issues, to facilitate development that has been unable to take place due to capacity constraints, and to permit Naas to fulfil its strategic settlement and economic role identified in the Regional Planning Guidelines.

The Council will have regard to all relevant waste water legislation particularly Sections 43 and 44 of the Waste Water Discharge (Authorisation) Regulations 2007 when carrying out its function.

8.6 SURFACE WATER AND DRAINAGE

Sustainable Urban Drainage Systems are advocated within the Greater Dublin Strategic Drainage Study with a specific objective to ensure that any future development does not increase flooding or pollution of rivers. The system aims to mimic the natural drainage of a site to minimise the impact of a development on potential flooding and pollution of waterways.

The control of surface water and appropriate measures for minimising flood risk is important to a sustainable water services policy. The potential for increased incidences of flooding due to climate change is acknowledged and the Council will seek to include flood risk as a key consideration in both policy formulation and assessment of planning applications.

The issue of surface water drainage is an increasingly important issue in the context of climate change, with higher rainfall levels and increased flood frequency predicted. It is important to note that the town of Naas has not been prone to severe flooding since the installation of a new surface water overflow system in the 1970's. However, it is important to continue to maintain this system, including upgrading the system as required.

Prior to the submission of a development application, it shall be ensured that sufficient surface water capacity exists. Development will not be permitted in areas where insufficient surface water capacity exists.

8.6.1 Surface Water and Flood Alleviation

The control of surface water and appropriate measures for managing flood risk is part of the Council's sustainable water services policy. The Office of Public Works (OPW) is the lead agency for flood risk management in Ireland.

The Council is charged with implementing and complying with the Planning System and Flood Risk Guidelines. The Council is also responsible, in liaison with the OPW for the implementation of the Water Services Flood Alleviation Capital programme 2009-2013. An owner of land along the riparian zones are responsible to maintain land and drains that flow through private lands and that do not form part of a drainage district.

The Council is mindful of the potential for increased incidences of flooding due to climate change and will seek to include flood risk identification and management as a key consideration in both policy formation as part of the development plan and in the assessment of planning applications.



8.7 WATER QUALITY

The maintenance and improvement of water quality is a key objective of the River Basin Management Plans and other legislative provisions. Drinking water quality in Kildare is monitored on an agency basis, by the Environmental Health Service of the Health Service Executive (HSE) in accordance with the Council's 2007 Drinking Water Monitoring Plan.

The European Communities (Drinking Water) (No. 2) Regulations 2007 (S.I. No. 278 of 2007) transpose outstanding aspects of the EU Drinking Water Directive into Irish Law by underpinning comprehensive supervision and maintenance regimes for both sanitary authority and group water scheme supplies and by providing for increased penalties for non-compliance. Achieving and improving appropriate water quality standards are of significant importance to the Council.

8.8 WATER AND DRAINAGE POLICIES

8.8.1 Water Supply

It is the policy of the Council:

- WS1:** To secure the development of the priorities outlined in the Water Services Investment Programme - Assessment of Needs 2010 - 2012.
- WS2:** To provide water, sufficient in quantity and quality to serve the needs of the existing and future population.
- WS3:** To examine ways of improving and upgrading the drinking water supply in Naas to cater for existing development in line with changing EU and National Directives, and concurrently to allow for increased residential, industrial and commercial growth in line with the objectives of this Plan.
- WS4:** To upgrade the existing water supply network infrastructure with the aim of improving the supply and quality of drinking water and reduce the level of unaccounted for water.
- WS5:** To promote conservation of water resources and where possible effect a reduction in the overall demand for treated water.
- WS6:** To promote water conservation measures within Naas by requiring the installation of water meters in all new residential units and in units where planning permission is required for an extension.
- WS7:** To require developments to connect to the public water supply.

8.8.2 Wastewater

It is the policy of the Council:

- WW1:** To secure priorities outlined in the Water Services Investment Programme - Assessment of Needs 2010 - 2012 including the upgrade of Osberstown Waste Water Treatment Plant.
- WW2:** To upgrade the Osberstown Waste Water Treatment Plant to 130,000 P.E. and to reserve and allocate 20,000 P.E. of that capacity to development that yields long term sustainable employment.
- WW3:** To minimise leakage from the foul sewer network and to minimise surface water infiltration into the foul sewerage system and at the same time reduce groundwater pollution.
- WW4:** To ensure that in areas not served by a public sewer, all single dwellings proposed to be served by a private wastewater treatment system (septic tank or proprietary wastewater treatment system) shall comply with the EPA Code of Practice (Wastewater Treatment and Disposal Systems Serving Single Houses P.E less than or equal to 10) and shall have regard to the County Kildare Groundwater Protection Scheme.

8.8.3 Surface Water and Drainage

It is the policy of the Council:

- SW1:** To implement the requirements of the DoEHLG, The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009) in the carrying out of functions during the period of the Plan and to update the Strategic Flood Risk Assessment for Naas as appropriate.
- SW2:** To provide the necessary drainage facilities to serve the needs of all development within the town and to prevent pollution and minimise the risk of flooding.
- SW3:** To ensure that new developments incorporate SuDS facilities, unless it can be clearly demonstrated that SuDS is impractical due to specific site circumstances.
- SW4:** To ensure that development proposals for lands that are identified in the Naas Town Council Strategic Flood Risk Assessment (Map 8.1) as being located within an area of potential flood risk, are accompanied by a site specific flood risk assessment appropriate to the type and scale of the proposed development.

- SW5:** To seek to ensure flood risk assessments are undertaken by competent persons (holding an adequate level of professional indemnity insurance) in accordance with the requirements of the DoEHLG 'The Planning System and Flood Risk Management- Guidelines for Planning Authorities' (2009) and that other available flood information is utilised in assessments as it becomes available.
- SW6:** To ensure that all structures adjacent to watercourses (including hard landscaping) be set back from the edge of the watercourse to allow access for channel clearing/maintenance. A set back of between 5 - 20 metres is required depending on accessibility of the watercourse.
- SW7:** To ensure that development in areas liable to flooding and areas where the conveyancing capacity of watercourses is limited must so far as is reasonably practicable, incorporate the maximum provision to reduce the rate and quantity of runoff. For example:
- Hard surface areas (car parks etc) should be constructed in permeable or semi-permeable materials,
 - On site storm water ponds to store and / or attenuate runoff from the development should be provided,
 - Soak-ways or French drains should be provided to increase infiltration and storage and minimise additional runoff.
- SW8:** To ensure that the requirements of the Inland Fisheries Ireland are adhered to in the construction of flood alleviation measures. This includes, but is not limited to:
- Allowance for dry weather flow conditions to be reflected in channel cross section;
 - Appropriate programming of any "instream works" to reflect the requirements of the Fishery Boards.
- SW9:** To protect groundwater resources and drinking water catchments having regard to the County Kildare Groundwater Protection Scheme 1999 (as amended) and Environmental Protection Agency guidelines applicable at the time.

8.8.4 Water Quality

It is the policy of the Council:

- WQ1:** To co-operate with the EPA, HSE and other authorities and to co-operate and assist the Eastern River Basin District project (ERBD) lead authorities in the continued implementation of the EU Water Framework Directive, the Programme of Measures from the River Basin Management Plans and any other legislation for the protection and improvement of drinking water, surface water and groundwater in Naas.
- WQ2:** To work in co-operation with relevant organisations and major stakeholders, to ensure a co-ordinated approach to the protection and improvement of water resources.



- WQ3:** To continue efforts to improve water quality under the Local Government (Water Pollution) Act 1977, (as amended) and by implementing the measures outlined under the Nitrates Directive (91/676/EEC) and complying with the requirements of the Surface Water Legislation Environmental Objectives (Surface Waters) Regulations 2009 and other relevant Regulations.
- WQ4:** To promote public awareness of water quality issues and the measures required to protect both surface water and groundwater bodies.
- WQ5:** To ensure that all agricultural activities adhere to any current or future legislation on water quality, such as the Phosphorous Regulations, Water Framework Directive and Nitrate Directive.

8.9 WATER AND DRAINAGE OBJECTIVES

It is an objective of the Council:

- WDO1:** To improve the provision of water and drainage services in new developments and in those areas of the town where deficiencies exist.
- WDO2:** To protect, improve and conserve the town's wastewater resources.
- WDO3:** To facilitate the provision of necessary water infrastructure in a sustainable manner.
- WDO4:** To improve water quality in the town in accordance with European and National legislation.
- WDO5:** To monitor and review the water quality standards of Naas Town Council in light of European Communities (Drinking Water) Regulations 2007 (SI 278 of 2007), and to ensure continuing compliance with the regulations.
- WDO6:** To improve and expand the water supply to all areas in accordance with the Water Strategy and the Water Services Investment Programme for County Kildare.
- WDO7:** To promote rain water harvesting in all developments and in particular for larger developments, as an alternative to attenuation.
- WDO8:** To promote the changeover from septic tanks to mains connections in Naas where this is feasible.
- WDO9:** To carry out a feasibility study on the capacity of the attenuation lakes on the Ballymore Road.
- WDO10:** To design and procure the necessary upgrade works by way of de-silting and possibly enlarging the existing attenuation lakes on the Ballymore Road so as to maximise their efficiency and benefits by way of flood alleviation, while having regard to the natural heritage of the area.
- WDO11:** To carry out a survey of the surface water culverts in Naas to assess their current state, and to improve culverts where necessary.
- WDO12:** To carry out a programme of dredging surface water drains and to continue to ensure that the drains are regularly maintained to minimise the risk of flooding.
- WDO13:** To develop a groundwater protection scheme for Naas in line with the recommendations contained in the DoEHLG/GSI/EPA publication "Groundwater Protection Schemes" 1999 (as amended).

8.10 ENVIRONMENTAL SERVICES

Aim: To conform with European Union, National and Regional policies in relation to waste management, to protect and enhance water, air and noise quality and to promote environmental awareness in Naas.



8.11 CONTEXT

Protection and enhancement of the physical environment is of primary importance to Naas Town Council. The role of the Council in this regard is to prevent water, air and noise pollution and to ensure the provision of the highest standards of waste management facilities.

8.12 STRATEGY

The strategy for environmental services seeks to conform with national and regional policy in relation to waste management and to maintain and improve environmental services in Naas. Central to the environmental strategy for the town is a focus on the promotion of environmental protection through education.

The strategy has regard to the internationally recognised hierarchy of waste management options which is:

- Prevention
- Minimisation
- Reuse/recycling
- Environmentally sustainable disposal of waste

8.13 WASTE MANAGEMENT

The Council is obliged to collect or arrange for the collection of household waste in its jurisdiction.

Waste collected is currently transferred to Dublin from the Integrated Waste Management Facility at Silliot Hill, Kilcullen for baling prior to disposal at Arthurstown Landfill Site.

The County Waste Management Plan 2005-2010 sets out the overall waste management objectives and includes details on waste production with specific objectives for infrastructure. Policies are outlined for waste prevention, minimisation, recovery/ reuse, recovery / recycling, energy recovery, disposal, waste collection, animal slurries, sludge, hazardous waste and litter prevention. This Waste Management Plan is due to be reviewed.

Section 22 of the Waste Management Act 1996 (as amended by Section 4 of the Waste Management (Amendment) Act 2001) provides the link between a Development Plan under the Planning and Development Act 2000 and the Waste Management Plan.

8.13.1 Litter Management

In accordance with the Litter Pollution Act 1997 local authorities are required to adopt Litter Management Plans. Naas Town Council adopted a Litter Management Plan in 2008 which is due to be reviewed in 2011. The Plan sets out the Council's objectives to prevent and control litter as well as measures to encourage public awareness of the litter problem with particular emphasis on educational and information strategies.

The Plan includes information on and was prepared having regard to:

- The policies and objectives of the Council in relation to the prevention and control of litter;
- Litter prevention and control measures carried out by the Council;
- Litter prevention and control activities being carried out by agencies other than the Council;
- Recycling and recovery facilities provided for public use;
- The Council's enforcement of the Litter Pollution Act 1997.

Since the adoption of the Naas Development Plan in 2005, Naas Town Council has been actively involved in facilitating the delivery of a more sustainable approach to waste management and litter. It is important that an effort is made to reduce the amount of waste going to landfill sites through the introduction of recycling initiatives.

Existing recycling facilities are located at Tesco car park, public car park at Friary Road, church car park Ballycane/Craddockstown, Eurospar car park, Fairgreen and at Áras Chill Dara, Devoy Park.



8.14 POLLUTION CONTROL- WATER, AIR AND NOISE

The importance of a clean environment for the economic and social life of the town is well recognised. In this regard, continuous effective monitoring and enforcement in relation to pollution control measures is imperative and will continue over the period of the Plan.

8.14.1 Water/Air

The Council's role in relation to water and air is to monitor and promote a reduction in water pollution, through implementation of relevant legislation and through the provision of advice and guidance on best practice.

8.14.2 Noise

The Council prepared a Noise Action Plan (2009) in accordance with the requirements of the Environmental Noise Regulations (SI 140 2006). These Regulations give effect in Ireland to EU Directive 2002/49/EC, relating to the assessment and management of environmental noise. Environmental noise is defined as unwanted or harmful outdoor sound created by human activities, including noise emitted by means of transport, road traffic, rail traffic, air traffic, and from sites of industrial activity. The Regulations do not address domestic or neighbourhood noise.

The objectives of the Noise Action Plan are to avoid, prevent and reduce, where necessary, on a prioritised basis, the harmful effects of long term exposure to environmental noise. The Plan promotes action on environmental noise through four avenues:

- Noise Reduction at source
- Land use planning adapted to noise goals
- Procedures to reduce noise impact
- Operating restrictions to reduce noise emissions.

8.14.3 Light

Light pollution can cause problems in a similar way to noise pollution, however the effects can be reduced. External lighting schemes and illuminated signage on commercial and industrial premises, sports grounds, and other developments, should be designed, installed and operated, so as to prevent nuisance to adjoining occupiers and road users, in the interests of amenity and public safety.

8.15 ENVIRONMENTAL SERVICES POLICIES

8.15.1 Waste Management

It is the policy of the Council:

- WM1:** To have regard to the County Kildare Waste Management Plan in the implementation, operation and management of schemes and services for the disposal of waste.
- WM2:** To seek to ensure that Naas is served by adequate recycling facilities in the form of kerbside collection, civic site and bring bank-recycling facilities.
- WM3:** To encourage waste prevention, minimisation, reuse, recycling and recovery as methods of managing waste. Where waste management is not being carried out properly, the Waste Management Act, 1996 to 2008 will be used as a means to ensure specific national policies and regulations are adhered to.
- WM4:** To promote and facilitate communities to become involved in environmental awareness activities, community-based recycling initiatives and environmental management initiatives, which will lead to local sustainable waste management practices.

8.15.2 Noise

It is the policy of the Council:

- N1:** To enforce, where applicable, the provisions of the Environmental Noise Regulations 2006.
- N2:** To seek to ensure that noise levels do not exceed accepted standards and that new developments incorporate measures to ensure compliance with the Environmental Noise Regulations 2006 and any subsequent revision of these Regulations.
- N3:** To regulate and control activities likely to give rise to excessive noise (other than those activities which require regulation by the Environmental Protection Agency).
- N4:** To require activities likely to give rise to excessive noise to install noise mitigation measures and monitors.



8.15.3 Litter

It is the policy of the Council:

- L1: To enforce, where applicable, the provisions of the Litter Pollution Act 1997.
- L2: To implement the strategic actions of the Naas Litter Management Plan 2008 (as amended).
- L3: To continue education and awareness programmes in local schools and to promote grant schemes and initiatives for resident associations and other groups which aim to reduce litter in the town.
- L4: To seek to minimise the effects of all new external lighting on environmental amenity.
- L5: To require the provision of litter bins on or directly adjoining the premises of all neighbourhood facilities.

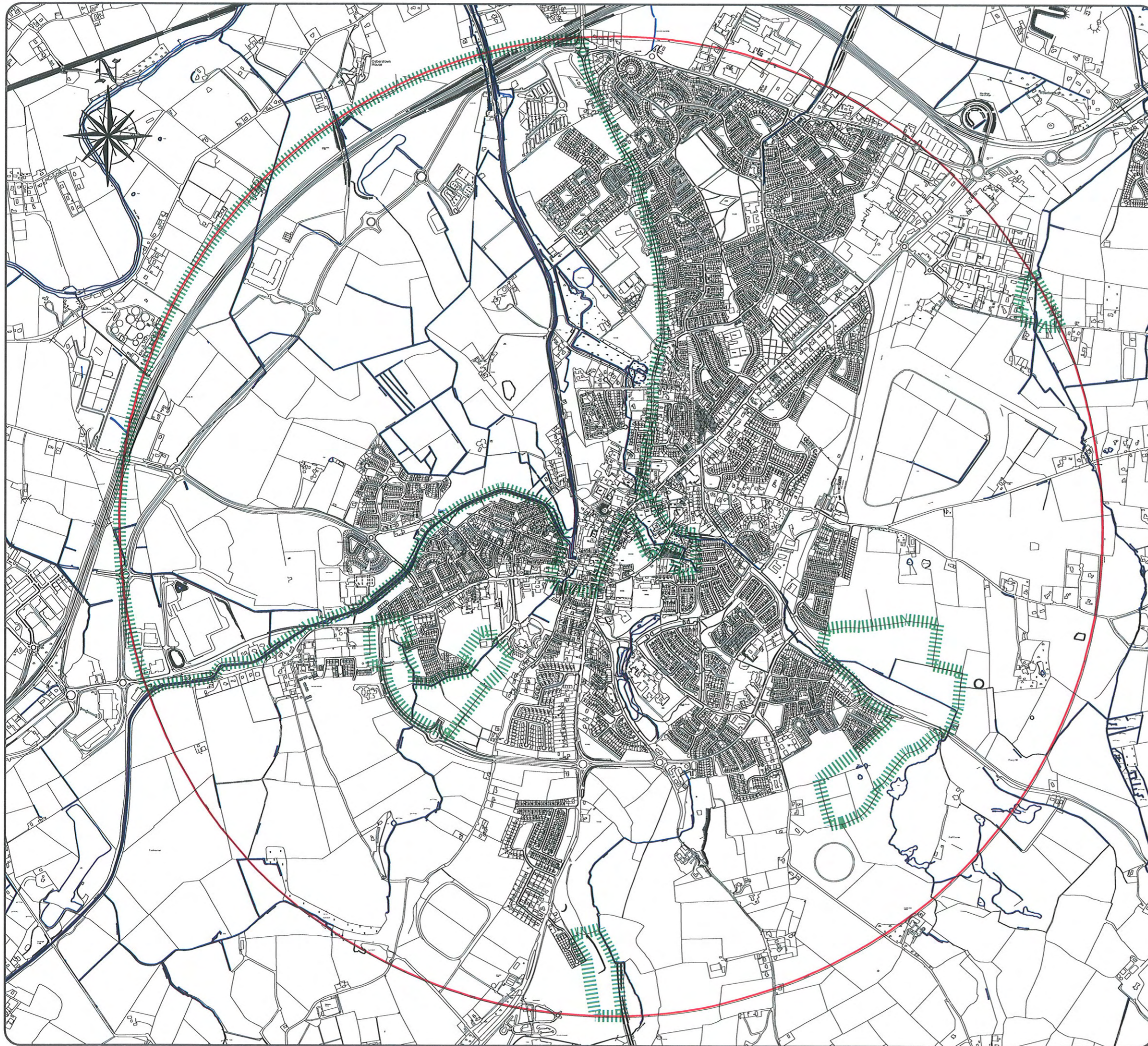
8.16 ENVIRONMENTAL SERVICES OBJECTIVES

It is an objective of the Council:

- ENO1: To facilitate the implementation of the County Kildare Waste Management Plan 2005-2010 and any subsequent revisions thereof during the period of this Plan.
- ENO2: To investigate the possibility of the further provision of recycling facilities in Naas.
- ENO3: To facilitate the implementation of the Kildare Noise Action Plan (2009) and the Naas Litter Management Plan (2008) and any subsequent amendments of these Plans during the period of this Development Plan.
- ENO4: To continue to monitor air quality at selected locations throughout the town in co-operation with the Health Service Executive and the Environmental Protection Agency.
- ENO5: To continue to monitor watercourses and other sensitive areas of the town's environment with a view to early detection and prevention of pollution.






- ENO6: To continue to support Community Groups, Residents Associations and the Tidy Town's Committee, in the promotion of Naas as a clean and attractive town.
- ENO7: To continue and expand environmental awareness initiatives designed to create increased public awareness of waste prevention, minimisation and reuse.



NAAS TOWN COUNCIL

Naas Town Development Plan
2011 - 2017

LEGEND

-  Development proposals for lands outlined shall be the subject of site specific Flood Risk Assessment appropriate to the type & scale of the proposed development
-  Existing watercourses and features
-  Naas Town Council Boundary

Strategic Flood Risk Assessment

Scale: N.T.S.

Map Ref.: 8.1

Date: 6th June 2011

Drawing No: 200/11/530

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CONJUNCTION WITH THE WRITTEN STATEMENT