7. INFRASTRUCTURE





AIM

To develop, protect, improve and extend water, waste water and flood alleviation and environmental services throughout the county in conjunction with other statutory bodies and to prioritise the provision of water services infrastructure to complement the overall strategy for economic and population growth and to achieve improved environmental protection.

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7.1 BACKGROUND

The availability of high quality water and drainage infrastructure and environmental services are necessary to facilitate the sustainable development of the county and to protect the environmental quality.

While Irish Water is responsible for all aspects of public water services planning, delivery and operation, Kildare County Council continues to provide some water services functions, as an agent of Irish Water. Kildare County Council is responsible for the management of surface water, with the Office of Public Works having overarching responsibility for flood risk management. Kildare County Council also has a statutory role in regulating waste management and in pollution control.

This chapter sets out policies and objectives in relation to investment in the county's infrastructure and in relation to environmental protection.

7.2 INFRASTRUCTURE PROVISION

7.2.1 Water

The combined historical impact of increased population and commercial development has resulted in water demands increasing from 50,000 cubic metres per day in 2003 to 78,000 cubic metres per day in 2015. Approximately 94% of the water supply to the county comes from outside Kildare – primarily from regional plants at Ballymore Eustace (Dublin City Council) and Leixlip (Fingal County Council). The Council will therefore strive to promote key water supply projects to facilitate the future development of the county in conjunction with Irish Water.

Wastewater

Kildare is served by circa 37 wastewater treatment plants. The largest wastewater treatment plants are located at Osberstown and Leixlip. Wastewater collection and treatment capacity has struggled to keep pace with development and many networks and plants in the county are operating at capacity.

A contract to upgrade the capacity of the Osberstown Wastewater Treatment Plant commenced in 2014 and will be completed in late 2017. The Leixlip wastewater treatment plant is currently being upgraded and is due for commissioning in mid 2017.

A significant proportion of this capacity will be absorbed by a large industrial connection and headroom capacity for other development will be limited. It is planned to connect to the Ringsend catchment by 2020, which discharges treated effluent to Dublin Bay.

The capacity of treatment works and the associated networks will be a key factor that will influence the future development of the county.

Furthermore, Irish Water intends to prepare Drainage Area Plans (DAPs) for the Lower Liffey Valley Regional Sewerage Scheme (including the towns of Kilcock, Maynooth, Leixlip and Celbridge) during 2017. The DAPs will identify solutions to provide capacity for future residential development and to meet environmental compliance requirements.

Strategic Infrastructure

The county is dependent on strategic national and regional solutions to the provision of water and wastewater infrastructure. The development of a new regional water supply source and the implementation of the recommendations of the Greater Dublin Strategic Drainage Study are central to the long term sustainable development of the county.

Flooding

The EU Floods Directive and the National Flood Policy Review Report (2004) are the driving forces behind flood management in Ireland. The Planning System and Flood Risk Management Guidelines for Planning Authorities, DECLG and OPW (2009) address flood risk management and the planning system. A Strategic Flood Risk Assessment (SFRA) of the county has been prepared to support the Strategic Environmental Assessment of the County Development Plan. It was carried out in accordance with the Flood Risk Management Guidelines (2009) and is a separate document to be read in parallel with this plan.

Catchment Flood Risk Assessments and Management Studies (CFRAMS) are ongoing and include the river catchments of the key water courses in the county.

7.3 POLICY / LEGISLATIVE CONTEXT

The provision of water, drainage and environmental services must have regard to relevant policy and legislative provisions which are outlined in the following sections.

Water Services Acts (2007-2014)

The Water Services Acts 2007-2014 provide the legislative framework in relation to the planning, management and delivery of water supply and wastewater collection and treatment services. It 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.

Water Framework Directive (2000)

The EU Water Framework Directive (2000/60/EC), is a single piece of legislation covering rivers, lakes, groundwater, transitional (estuarine) and coastal waters together with heavily modified and artificial water bodies. It seeks to prevent 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. Management of water quality is to be centred on river basins, through the implementation of River Basin Management Plans (RBMP). In the case of Kildare the relevant Plans include the South Eastern (River Barrow catchment) and Eastern River Basin Districts (River Liffey and River Boyne catchments). Ireland is now preparing for the second cycle, which proposes a National River Basin Management Plan to be in place by the end of 2017.

Groundwater Protection Scheme 7.3.3 (2004)

Groundwater is protected under EU and National legislation. Local Authorities and the Environmental Protection Agency have responsibility for enforcing this legislation. The Geological Survey of Ireland (GSI), in conjunction with the DECLG and the EPA issued guidelines on the preparation of groundwater protection schemes. A Groundwater Protection Scheme for County Kildare was prepared in 2004 by the GSI in partnership with Kildare County Council.

Greater Dublin Area Strategic 7.3.4 **Drainage Study (2005)**

The Greater Dublin Strategic Drainage Study delivered an overview of the performance of the drainage infrastructure in the region's catchments and proposed infrastructural improvement works to facilitate the anticipated future growth in the catchment to 2031. Irish Water, with the support of Kildare County Council, now manages the major and minor capital works for combined (surface water) and wastewater networks.

Sustainable Urban Drainage Systems (SuDS)

Sustainable Urban Drainage Systems (SuDS) are advocated within the Greater Dublin Strategic Drainage Study with an 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 effect of a development on flooding and pollution of waterways.

Rural Water Programme (2009)

Funding under this programme is provided from the Department of Housing, Planning, Community and Local Government (DHPCLG). 2016 marked the first year in transitioning to a new Rural Water Multi-Annual Programme from 2016-2018. The objectives of which are to provide enhanced funding certainty for priority investment needs in order to support the implementation of proper planning and sustainable development in rural areas, to meet the requirements of the Drinking Water Directive in relation to rural water supplies and to support the delivery of measures identified in River Basin Management Plans to meet the objectives of the Water Framework Directive. Where appropriate, the multi-annual rural water programme will seek to establish synergies with Irish Water's 25 year Water Services Strategic Plan and Irish Water's Capital Investment Plans.

The key objectives of the Rural Water Programme are as follows:

- To protect public health by ensuring compliance with the Drinking Water Directive, so that water intended for human consumption is wholesome
- To pursue a planned approach to investment and ensure best practice in all aspects of management and operation of rural water schemes.

- To give practical effect to the principle of partnership with the voluntary group scheme sector in the determination and implementation of policy on rural water supply through the local monitoring committees.
- To assist in the effective administration of the devolved rural water programme.
- To sustain the rural environment and promote rural economic development.

A Rural Water Strategic Plan is in place so that the objectives listed above can be met efficiently and effectively in rural County Kildare. 15% of the population of the county is served by group water schemes and private wells.

7.3.7 EPA – Code of Practice for Wastewater Treatment and Disposal Systems Serving Single Houses (2009)

The code of practice establishes an overall framework of best practice in relation to the development of wastewater treatment and disposal systems in unsewered rural areas, for protection of the environment and specifically water quality. All planning applications for one off houses must be assessed in relation to the EPA Code of Practice.

7.4 STRATEGY

The Council recognises the importance of the continued development of sustainable wastewater, water supply and drainage services in the county to facilitate economic development and quality of life for a growing population. Irish Water is required by Water Services legislation to prepare a Water Services Strategic Plan (WSSP).



The WSSP must set out the objectives of Irish Water in relation to the provision of water services over a 25 year period and is subject to approval by the Minister for the DHPCLG. The WSSP sets a context for lower tier investment and implementation plans for key water services areas. The Council will facilitate Irish Water in the delivery of the WSSP.

The alleviation of flood risk and the consequences of flooding including the provision of Flood Management Systems throughout the county is also a key component of the Infrastructure strategy.

7.5 WATER AND DRAINAGE POLICIES

7.5.1 Policies: Water Supply

It is the policy of the Council to:

- WS 1 Work in conjunction with Irish Water to protect existing water infrastructure and to promote investment in the water network to support environmental protection and facilitate the sustainable development of the county.
- WS 2 Promote and support the implementation of Irish Water's Eastern and Midlands Water Supply Project to increase the water supply throughout the Dublin and Eastern and Midlands regions.
- WS 3 Maximise the use of existing capacity in water services in the planning of new development and to ensure that full consideration is given to the level of investment required in the provision of water services, particularly in environmentally sensitive areas, when zoning for new development.
- WS 4 Ensure that adequate water services will be available to service development prior to the granting of planning permission and to require developers to consult with Irish Water regarding available capacity prior to applying for planning permission.
- WS 5 Work in conjunction with Irish Water to protect, manage and optimise water supply networks in the county including the protection of wayleaves and buffer zones.

- WS 6 Work in conjunction with Irish Water to promote the ongoing upgrade and expansion of water supply services to meet the future needs of the county and the region including facilitating the provision and zoning of appropriate sites required for water services infrastructure as necessary.
- WS 7 Facilitate Irish Water's implementation of their Water Conservation Project targeting leakage reduction.
- WS 8 Promote water conservation and demand management and best demand management practices in all developments, including rain water harvesting and grey water recycling and supporting the implementation of BS8515: 2009 Rainwater Harvesting Systems Code of Practice.
- WS 9 Manage, protect and enhance surface water and groundwater quality to meet the requirements of the EU Water Framework Directive.
- WS 10 Maintain, improve and enhance the environmental and ecological quality of the county's surface and groundwaters by implementing the programme of measures set out in the River Basin Management Plan(s).
- WS 11 Protect groundwater in the county from risk of pollution and ensure the implementation of the Kildare Groundwater Protection Scheme and such other relevant documents and legislation as may be introduced.
- WS 12 Promote the proper management of Group Water Schemes in accordance with the Rural Water Strategic Plan.
- WS 13 Have regard to the requirements of the Habitats Directive in all proposed projects or plans.
- WS 14 (a) Recognise the strategic importance of the Eastern Regional Water Supply Scheme and co-operate with Irish Water, the Department of Housing, Planning, Community and Local Government and other statutory agencies in finalising the route.
 - (b) Preserve the emerging corridor of the Eastern Regional Water Supply Scheme free from development.

7.5.2 Policies: Water Quality

The EU Water Framework Directive (2000/60/EC) is a single piece of legislation covering water bodies such as rivers, lakes and groundwater, its remit is to protect and restore water quality. The management of the water quality is through the implementation of River Basin Management Plan(s) (RBMP). The Directive includes a requirement to contribute to mitigating the effects of floods.

It is the policy of the Council to:

- WQ 1 Co-operate with the EPA and other authorities in the continued implementation of the EU Water Framework Directive and assist and co-operate with the lead authority for the River Basin Management Plan(s).
- WQ 2 Ensure, through the implementation of the River Basin Management Plan(s) and the associated Programmes of Measures and any other associated legislation, the protection and improvement of all drinking water, surface water and ground waters throughout the county.
- WQ 3 Work, in co-operation with relevant organisations and major stakeholders, to ensure a co-ordinated approach to the protection and improvement of the county's water resources.
- WQ 4 Work in conjunction with Irish Water with the aim of improving the quality of drinking water and reducing the level of unaccounted for water through targeted leak reduction.
- WQ 5 Support the implementation of Irish Water's Water Safety Plans to ensure that public drinking water sources and their contributing catchments are protected from pollution.
- WQ 6 Protect recognised salmonid water courses in conjunction with Inland Fisheries Ireland such as the Liffey catchment, which are recognised to be exceptional in supporting salmonid fish species.

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7.5.3 Policies: Wastewater

The largest wastewater treatment plants are located at Leixlip, (serving Kilcock, Maynooth, Celbridge, Leixlip and Straffan) and Osberstown (serving Naas, Newbridge, Kilcullen, Athgarvan, Prosperous, Sallins, Clane and Kill). There are also smaller plants located in Athy, Kildare Monasterevin, Castledermot, Robertstown and Ballymore Eustace among others serving their local catchment.

It is the policy of the Council to:

- WW 1 Work in conjunction with Irish Water to protect drainage infrastructure and promote investment in the drainage network to support environmental protection and facilitate the sustainable growth of the county.
- WW 2 Seek to ensure that all towns and villages are provided with an adequate waste water treatment plant within the limits of cost effectiveness and availability of finance.
- WW 3 Maximise the use of existing capacity in wastewater services in the planning of new development and to ensure that full consideration is given to the level of investment required in the provision of wastewater services, particularly in environmentally sensitive areas, when zoning for new development.
- WW 4 Ensure that adequate wastewater services will be available to service development prior to the granting of planning permission. Applicants who are proposing to connect to the public wastewater network should consult with Irish Water regarding available capacity prior to applying for planning permission.
- WW 5 Work in conjunction with Irish Water to protect, manage and optimise wastewater drainage networks in the county including the protection of wayleaves and buffer zones.
- WW 6 Work in conjunction with Irish Water to promote the ongoing upgrade and expansion of wastewater services to meet the future needs of the county and the region including facilitating the provision and zoning of appropriate sites required for wastewater services infrastructure as necessary.

- WW 7 Support Irish Water in delivering key waste water projects in the county including:
 - Osberstown Wastewater Treatment Plant Upgrade,
 - Leixlip Wastewater Treatment Plant Upgrade,
 - Upper Liffey Valley Sewerage Scheme,
 - Kildare Town Network Upgrade, and
 - Local Network Reinforcement Projects.
- WW 8 Require all new development to provide a separate foul and surface water drainage system and to prohibit the discharge of additional surface water to combined sewers other than in exceptional circumstances.
- WW 9 Support Irish Water in the promotion of effective management of trade discharges to sewers in order to maximise the capacity of existing sewer networks and minimise detrimental impacts on sewage treatment works.
- WW 10 Refuse residential development that requires the provision of private waste water treatment facilities, other than single house systems.
- **WW 11** Promote the changeover from septic tanks to collection networks in all cases where this is feasible and desirable (subject to connection agreements with Irish Water) and that all new developments utilise and connect to the public wastewater infrastructure. The provision of individual septic tanks and treatment plants in the plan area will be strongly discouraged to minimise the risk of groundwater pollution. Where such facilities are permitted, full compliance with the prevailing regulations and standards, including the EPA Code of Practice for Wastewater Treatment and Disposal Systems Serving Single Houses (PE. ≤10), (2009), as may be amended, will be required.
- WW 12 Ensure that existing and permitted private wastewater treatment plants are operated in compliance with their wastewater discharge license, in order to protect water quality.
- WW 13 Require existing developments that are in close proximity to a public sewer to connect to that sewer, subject to a connection agreement with Irish Water.

7.5.4 Surface Water and Flood Alleviation

The control of surface water and appropriate measures for eliminating flood risk are 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 coordination of Government Policy in terms of flood risk identification, assessment and management is the responsibility of the OPW, and as such it is primarily charged with ensuring Ireland's compliance with its legal obligations in relation to flood risk.

The Council is required to implement and comply with the Planning System and Flood Risk Management Guidelines, DEHLG (2009).

Kildare County Council has carried out a Strategic Flood Risk Assessment (SFRA) for this plan as required by these guidelines. The SFRA is a county-wide assessment of flood risk to inform strategic land-use decisions with the purpose of ensuring that flood risk management is fully integrated into the Development Plan. The SFRA of this Plan is a live document and any updates to it including the identification of flood zones will inform future planning decisions throughout the county.

7.5.5 Policies: Surface Water and Flooding

It is the policy of the Council to:

- SW 1 Manage, protect and enhance surface water quality to meet the requirements of the EU Water Framework Directive.
- SW 2 Incorporate Flood Risk Management into the spatial planning of the county, to meet the requirements of the EU Floods Directive and the EU Water Framework Directive.
- SW 3 Support and co-operate with the Office of Public Works in delivering the Catchment Based Flood Risk Assessment and Management Programme in particular the Eastern and South Eastern CFRAM studies and associated Flood Management Plans. The recommendations and outputs arising from these studies shall be incorporated in preparing plans and assessing development proposals.

- W 4 Support the implementation of the EU Flood Risk Directive (2007/60/EC) on the assessment and management of flood risks and the Flood Risk Regulations (SI No 122 of 2010).
- **SW 5** Manage flood risk in the county in accordance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities, DECLG and OPW (2009) and circular PLo2/2014 (August 2014), in particular when preparing plans and programmes and assessing development proposals. For lands identified in the Strategic Flood Risk Assessment a sitespecific Flood Risk Assessment to an appropriate level of detail, addressing all potential sources of flood risk, is required, demonstrating compliance with the aforementioned Guidelines or any updated version of these guidelines, paying particular attention to residual flood risks and any proposed site specific flood management measures.
- SW 6 Ensure effective management of residual risks for development permitted on floodplains.
- SW 7 Maintain and enhance the existing surface water drainage systems in the county and promote and facilitate the development of Sustainable Urban Drainage Systems including integrated constructed wetlands and to promote and support the retrofitting of SuDS in established urban areas.



- SW 8 Incorporate Sustainable Urban Drainage Systems as part of all plans to address the potential for sustainable urban drainage at district or site level.
- SW 9 Limit the surface water run off from new developments through the use of Sustainable Urban Drainage Systems (SuDS). These systems should not adversely impact on open space provision in residential areas.
- SW 10 Liaise with the Office of Public Works in delivering on flood management works and schemes, as may arise, through the OPW Non-Coastal Minor Works Programme and through the OPW's Capital Programme.
- SW 11 Ensure that all towns, villages and settlements are provided with adequate flood alleviation measures within the limits of cost effectiveness and the availability of finance.
- SW 12 Ensure that flood risk management is incorporated into the preparation of Local Area Plans in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities, DECLG and OPW (2009).
- SW 13 Ensure that the Justification Test for Development Management is applied to proposals for development in areas at a high or moderate risk of flooding where the development proposed is vulnerable to flooding and would generally be inappropriate as set out in Table 3.2 of the The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009).



- SW 14 Seek to ensure that development will not interfere with or interrupt existing surface water drainage systems.
- SW 15 Ensure that the reasonable requirements of Inland Fisheries Ireland are adhered to in the construction of flood alleviation measures in the county.
- SW 16 Recognise the important role of bogland and other wetland areas in flooding patterns. Development in these areas shall therefore be subject to a Flood Risk Assessment in accordance with the relevant guidance.
- SW 17 Require development proposals which may affect canals and their associated infrastructure to prepare a Flood Risk Assessment in accordance with the relevant guidance.
- SW 18 Ensure development proposals in rural areas (excluding one-off rural housing) demonstrate compliance with the following:
 - The ability of a site in an unserviced area to accommodate an on-site waste water disposal system in accordance with the County Kildare Groundwater Protection Scheme, and any other relevant documents and legislation as may be introduced during the Plan period.
 - The ability of a site in an unserviced area to accommodate an appropriate onsite surface water management system in accordance with the policies of the Greater Dublin Strategic Drainage Study (2005), in particular those of Sustainable Urban Drainage Systems (SuDS).
 - The need to comply with the requirements of The Planning System and Flood Risk Management Guidelines for Planning Authorities, published by the Minister for the Environment, Heritage and Local Government (2009).
- W 19 Liaise with the Office of Public Works in delivering flood management and alleviation programmes to include, but not limited to, the following:
 - South Eastern CFRAMS and the recommendations therein.
 - Eastern CFRAMS and the recommendations therein.

- Newbridge Surface Water Improvement Schemes.
- Morrell River Flood Management Scheme.
- Hazelhatch Flood Management Scheme.
- SW 20 Develop and resource a multi-annual programme for the maintenance of river channels under the responsibility of Kildare County Council, to include but not limited to:
 - Barrow Drainage District.
 - Greese Drainage District.
 - Lerr Drainage district.
- SW 21 Ensure that rural one off residential developments maintain existing drainage systems, particularly at access points to the property.

7.5.6 Objectives: Water and Drainage

It is an objective of the Council to:

- WDO 1 Continually monitor and review the water quality standards of Kildare County Council in light of European Communities (Drinking Water) Regulations 2007 (SI 278 of 2007), as may be amended and to ensure continuing compliance.
- WDO 2 Acknowledge the strategic policy recommendations in relation to flood risk identified in the Regional Planning Guidelines for the Greater Dublin Area 2010-2022.
- WDO 3 Liaise with adjoining Local Authorities, all relevant departments and agencies in the alleviation of flood risk in the county.
- WDO 4 Promote rain water harvesting in all developments and in particular in larger schemes.
- WDO 5 Liaise with Irish Water to promote the sustainable development of water supply and drainage infrastructure in the county and the region, in accordance with the objectives and recommendations set out in the Greater Dublin Drainage Study, Irish Water's Water Services Strategic Plan and the Eastern and Midlands Water Supply Project.

- WDO 6 Present business cases to Irish Water to secure capital investment for required infrastructural projects in the county based on the Core Strategy.
- WDO 7 Protect the natural resources of the county which are the foundation for the Green Infrastructure network and a basis for growth and competitive advantage in the tourism, food and fisheries sectors.
- **WDO 8** Work in conjunction with Irish Water to identify and facilitate the timely delivery of the water services required to realise the development objectives of this plan.



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7.6 ENVIRONMENTAL SERVICES

Aim

To conform to European, National and Regional policies in relation to the provision of waste management and to protect and enhance water, air and noise quality.

Context

Protection of the physical environment is of primary importance. The Council seeks to ensure the provision of the highest standards of waste management facilities and collection and to prevent and control water, air and noise pollution.

The Development Plan is required to include objectives for waste recovery and disposal facilities, therefore the objectives of the relevant waste management plan are deemed to be included in the Development Plan.

Waste Management policies and objectives in Kildare are reflective of the overarching EU, National and Regional policy and legislation. The Eastern-Midlands Region Waste Management Plan 2015-2021 provides the framework for waste management in the region and sets out a range of policies and actions to meet specified mandatory and performance based targets. The Eastern - Midlands Region was identified in the Government's 2012 blueprint for a circular waste economy 'A Resource Opportunity - Waste Management Policy in Ireland'. It recognises that managing waste in a sustainable and self sufficient manner will be one of the key challenges for the region. In many instances change is being incentivised through government backed financial measures such as the Repak subsidy on dry recyclables or charges such as the landfill levy. The market for recycled goods, however, continues to be volatile and very much contingent on world economic trends. In truth, waste management is now very much a private sector activity while the role of the local authorities is largely confined to regulation and educational activities. The substantial increase in the landfill levy has had the effect of reducing the number of landfills, to such an extent that there are only two now in operation in the Eastern and Midland Region.

The new Regional Waste Plans were formally approved in May 2015. This sets ambitious targets as follows:-

- 1% reduction per annum in the quantity of household waste generated per capita over the period of the Plan (i.e. by 2021).
- Achieve a recycling rate of 50% of Managed Municipal Waste by 2020.
- Reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill from 2016 onwards.

A comprehensive set of policies is included, aimed at achieving these overarching objectives.

7.6.2 Strategy

The Council's strategy for sustainable environmental management seeks to conform to European and National Waste Strategies in matters relating to the production, handling, treatment and disposal of waste within the county and to co-operate with and participate in the preparation of regional plans for the collection, treatment, handling and disposal of waste.

The strategy also seeks to improve noise impacts and air quality standards of the county and to control harmful emissions to water and air under the relevant regulations.

Central to the strategy is a focus on the promotion of environmental protection through education.

Litter 7.6.3

The Litter Management Plan 2016-2019 details the measures proposed by Kildare County Council in relation to litter prevention and control.

Pollution Control – Water, Air and Noise

The importance of a clean environment for the economic and social life of the county is well recognised. In relation to water, air and noise pollution continuous effective monitoring and enforcement in relation to pollution control measures is imperative and will continue over the period of the Plan. The Kildare Noise Action Plan (2013) seeks to avoid, prevent and reduce where necessary the harmful effects of long term exposure to environmental noise. All proposed development will be in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive (2008/50/EC).

In this regard, continuous effective monitoring and enforcement in relation to pollution control measures is imperative and will continue over the period of this plan.

Policies: Waste Management It is the policy of the Council to:

WM 1 Implement European Union, National and Regional waste related environmental policy, legislation, guidance and codes of practice to improve management of material resources and wastes.

WM 2 Have regard to European Union, National and Regional policy relating to air quality, light pollution and noise pollution and to seek to take appropriate steps to reduce the effects of air, noise and light pollution on environmental quality and residential amenity.

Support the implementation of the Eastern-Midlands Region Waste Management Plan 2015-2021 by adhering to overarching performance targets, policies and policy action.

WM 4 Support waste prevention through behavioural change activities that disassociate economic growth with resource use.

Provide, promote and facilitate high quality sustainable waste recovery and disposal infrastructure and technology in keeping with the EU waste hierarchy and to adequately cater for a growing residential population and business sector.

WM 6 Seek the provision of adequately sized public recycling facilities in association with new commercial developments and in tandem with significant change of use / extensions of existing commercial developments where appropriate.

Secure appropriate provision for the sustainable management of waste within developments, including the provision of facilities for the storage, separation and collection of such waste.

Require the submission of either a certificate of exemption or a valid planning permission for a Waste Facility Permit or a Certificate of Registration application, in accordance with the Waste Management (Facility Permit and Registration) Regulations 2007 (as amended).

WM 9 Provide each town, village or settlement, subject to the availability of finance with appropriate recycling facilities in the form of a kerbside collection, civic site and bring bank recycling facilities.

WM 10 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 (as amended), will be used as a means of ensuring specific national policies and regulations are adhered to.

WM 11 Promote and facilitate communities to become involved in environmental awareness activities and community-based recycling initiatives or environmental management initiatives, which will lead to local sustainable waste management practices.

WM 12 Ensure the provision of waste management facilities in County Kildare (either directly by the Council or in co-operation or partnership with other local authorities and the private sector) is subject to the specific requirements of the Eastern-Midlands Region Waste Management Plan 2015-2021.

WM 13 Strictly control the raising of land for the purpose of private housing in the interests of pollution control, drainage, flood alleviation and amenity.

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WM 14 Require that all intensive agricultural waste, organic waste, municipal sludge and industrial sludge recovered through land spreading, be carried out under an accepted Nutrient Management Plan which must demonstrate nutrient uptake and capacity in spreadlands, sufficient storage facilities, compliance with relevant legislation including the Nitrates Regulations 2009, Waste Management Act 1996 (as amended), Sludge Management Plan for Kildare, River Basin Management Plans, Kildare County Council's Sludge Protocol and any future revisions and replacements of these documents.

WM 15 Support and facilitate the separation of waste at source into organic and non organic streams or other waste management systems that divert waste from landfill and maximise the potential for each waste type to be reused and recycled or composted and divert organic waste from landfill, in accordance with the 'National Strategy on Biodegradable Waste 2006 and the Eastern – Midlands Region Waste Management Plan 2015-2021.

WM 16 Work in conjunction with Government departments and agencies and all other relevant stakeholders to remediate Kerdiffstown Landfill in a socially, economically and environmentally sustainable manner that will both manage and reduce environmental risk and accommodate an appropriate end – use that is compatible with the established character of the area.

WM 17 Facilitate the development of waste management infrastructure that is of an appropriate scale and is related to the needs of the county and the Eastern and Midlands Waste Region, subject to the protection of the environment, landscape character, road network and the amenities of the area.

WM 18 Facilitate the ongoing operation of the Drehid waste facility in so far as operations at the facility relate to the waste management needs of the county and the Eastern and Midlands Waste Region and subject to the protection of the environment, landscape character, road network and the amenities of the area.

7.6.6 Policy: Litter

It is the policy of the Council to:

L1 Implement the strategic actions of the Litter Management Plan 2012-2015 and its review when completed.

7.6.7 Policies: Pollution Control - Water, Air and Noise

It is the policy of the Council to:

- PC 1 Implement the provisions of EU and National legislation on air, light and noise control and other relevant legislative requirements, as appropriate, in conjunction with all relevant stakeholders.
- PC 2 Implement the relevant spatial planning recommendations and actions of the Kildare Noise Action Plan 2013-2018.
- PC 3 Ensure that future developments are designed and constructed to minimise noise disturbance and take into account the multi functional uses of streets including movement and recreation, as detailed in the Urban Design Manual (2009) and the Design Manual for Urban Roads and Streets (2013).
- PC 4 Ensure external lighting schemes minimise light spillage or pollution in the immediate surrounding environment and do not adversely impact on residential or visual amenity and biodiversity in the surrounding areas.

- PC 5 Promote and support the ban on the use, marketing, sale and distribution of bituminous coal in Naas, Newbridge, Celbridge, Leixlip and Maynooth.
- PC 6 Enforce, where applicable, the provisions of the Environmental Noise Regulations (2006).
- PC 7 Ensure that noise levels caused by new and existing developments throughout the county do not exceed normally accepted standards and that new developments shall incorporate measures to ensure compliance with the Environmental Noise Regulations 2006 and any subsequent revision of these Regulations.
- PC 8 Regulate and control activities likely to give rise to excessive noise (other than those activities which require regulation by the Environmental Protection Agency).
- PC 9 Require activities likely to give rise to excessive noise to install noise mitigation measures and monitors.
- PC 10 Ensure that all future development is in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFÉ)
 Directive (2008/50/EC).

7.6.8 Objectives: Environmental Services

It is an objective of the Council to:

- **EN 1** Promote environmental protection through education.
- EN 2 Facilitate the implementation of the Eastern Midlands Region Waste Management Plan 2015-2021.
- EN 3 Investigate the possibility of the provision of a recycling facility in the north of the county and to seek new markets for recycling in existing centres.
- EN 4 Facilitate the implementation of the Kildare Noise Action Plan 2013-2018 and Litter Management Plan 2016-2019 and any subsequent amendments during the period of this Plan.

- EN 5 Continue the monitoring and review of the trade effluent discharge licences of effluent and to include food service establishments in this monitoring.
- EN 6 Continue to monitor air quality at selected locations throughout the county in cooperation with the Health Service Executive and the Environmental Protection Agency.
- EN 7 Require the submission of Annual Environmental Reports (which require ongoing monitoring of specified environmental parameters) on specified developments through the planning process.
- EN 8 Investigate and develop best practice guidelines in relation to design, location and size of bin storage areas in apartment or higher density housing schemes.
- EN 9 Implement the objectives of the National Waste Prevention Programme at a local level with businesses, schools, householders and community groups and within the Council's own activities.
- EN 10 Promote and increase the amount of waste reused and recycled consistent with the Eastern Midlands Region Waste Management Plan and Waste Hierarchy and facilitate recycling of waste through adequate provision of facilities and good design in new developments.
- **EN 11** Complete and implement the Kildare Litter Management Plan 2016- 2019.

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