

INFRASTRUCTURE AND UTILITIES



DRAFT PLAN FEBRUARY 2022

FINGAL DEVELOPMENT PLAN 2023-2029

11.1 Introduction

Land-use planning, transportation and the provision of essential infrastructure are interdependent key components for the delivery of development, and they require an integrated approach by all stakeholders. Fingal is committed to providing and delivering infrastructural services within its statutory remit, which will enhance the quality of the County's environment and facilitate sustainable economic development and housing. The NPF acknowledges this inter-dependency, and it now is a requirement that lands be serviced with adequate infrastructure or indeed be serviceable within the lifetime of the Development Plan, to be deemed appropriate to be zoned for development purposes.

The policies and objectives in this chapter are intended to address a wide range of supporting infrastructure and services, including improvements in water services, water quality, the promotion of sustainable waste management in our transition to a circular economy, diversity in our energy supply and improved energy efficiency, enhanced digital connectivity and SMART technologies, and a holistic approach to flood risk and surface water management, while safeguarding environmental quality and providing for climatic resilience.

These policies and objectives will support the availability of quality infrastructure which is critical to productivity and competitiveness. The location and delivery of both regional and local infrastructure is necessary to ensure that Fingal's Settlement Strategy is successful and that its economy can thrive as part of a wider city region.

11.2 Context

The availability of infrastructure such as water, wastewater, surface water drainage, energy and telecommunication networks will play a key role in securing economic investment. Such infrastructure must be provided in a manner which ensures compliance with all relevant European, National and Regional legislation and frameworks and is considered critical by the Government for Ireland's environmental and economic wellbeing.

The provision of an adequate supply of water and wastewater facilities is crucial to facilitate and sustain the growth of Fingal and the greater Dublin area. Irish Water (IW) has responsibility for the provision of water/wastewater infrastructure and Fingal will continue to work with IW and the Regional Assembly to ensure that IW's Investment Plan fully aligns with Fingal's Settlement Strategy. Water supply for the wider Dublin area is at critical levels of demand at present and to facilitate further growth in line with NPF population growth projections, prioritization of water supply investment should occur. Irish Water has identified key projects for the Region which are included in Project Ireland 2040. It is essential that we have a resilient water supply to serve the existing population and for the additional 1 million people projected by 2040.

Surface water management and flood prevention remain the responsibility of the Local Authorities and the OPW and Fingal County Council will continue to protect and enhance the County's floodplains, wetlands and coastal areas supporting approaches to manage surface water that take account of water quantity (flooding), water quality (pollution), biodiversity (wildlife and plants) and amenity (Sustainable Urban Drainage Systems (SuDS)). The amount of wastewater generated in greater Dublin is projected to increase

by over 50% in the period to 2050 and this needs to be addressed in the context of the upgrade of the Ringsend Wastewater Treatment Plant and the need for additional national infrastructure such as the Greater Dublin Drainage Project.

Successful waste management strategies and policies play an essential role in protecting public health, maintaining a high-quality environment and supporting sustainable development in Fingal and the wider eastern region. In managing our waste needs, we need to minimise waste going to landfill and maximise waste as a valuable resource, as we make the transition from a linear to a circular economy.

A secure and resilient supply of energy is critical to a well-functioning region. Over-reliance on non-indigenous supplies of energy is still a major issue for Fingal and the Eastern Region. Energy generation and energy related activity in Fingal is likely to change significantly over the coming years as the move to a low carbon economy increases.

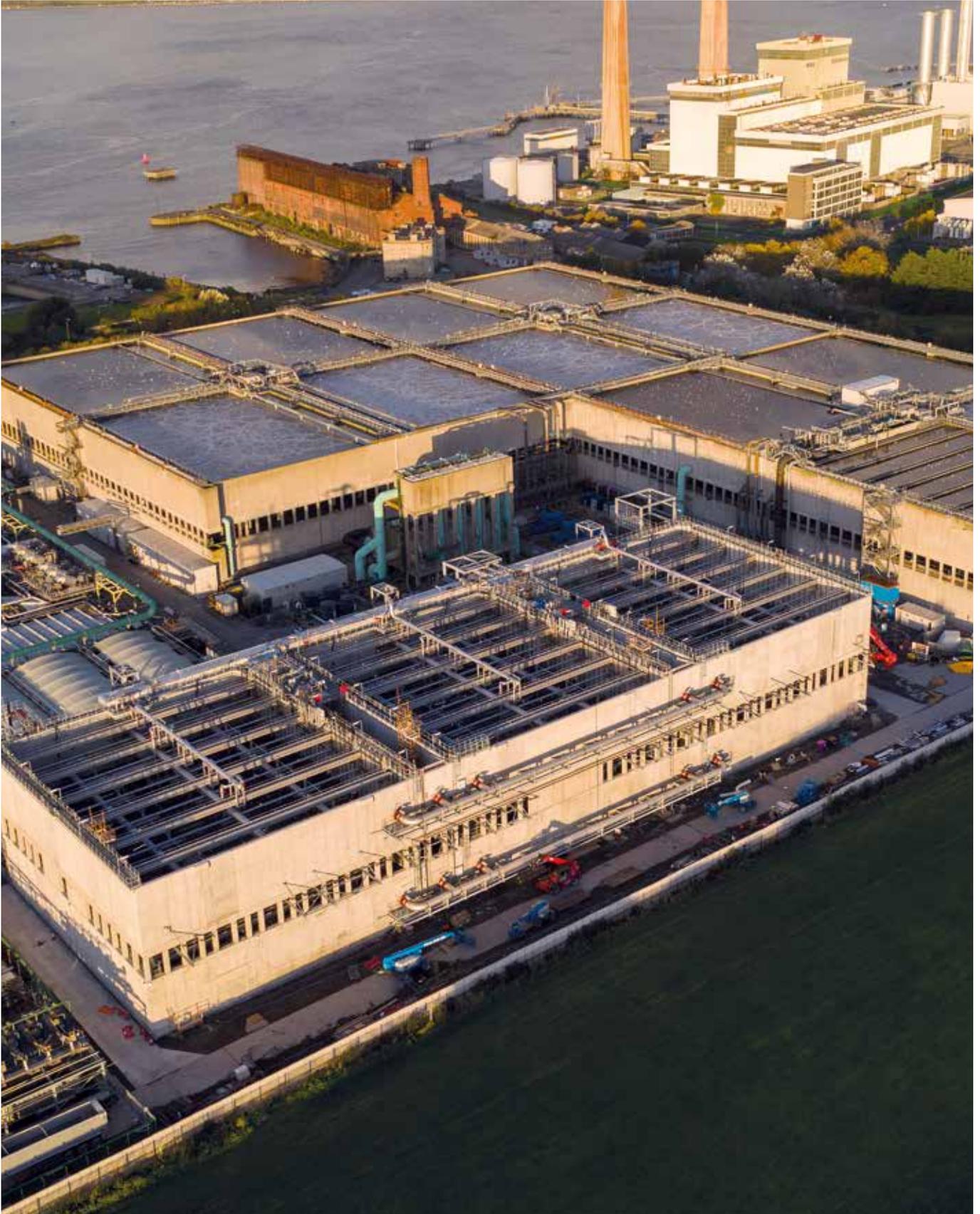
In recent years, the Irish Government has prioritised the delivery and implementation of the EU Digital Agenda and Digital Single Market through development and implementation of the National Broadband Plan. Ireland ranks 6th out of 28 EU Member States (2020) in the European Commission Digital Economy and Society Index (DESI) and *Fingal's Digital Strategy 2020–23* will continue to encourage and support communities and businesses to reap the full rewards of a digitally enabled society.

Development Plan policy will continue to include measures to avoid, mitigate, and minimise or promote the pro-active management of noise, engage with the EPA to monitor and improve air quality and have regard to data on artificial light and light pollution.

11.3 Opportunities

While it is acknowledged that Fingal and the wider Greater Dublin Area faces a variety of infrastructural challenges, there are many opportunities for Fingal to meet the increased demand for high quality infrastructure and services in the area. The Wastewater Treatment Plant is currently being upgraded and when all the proposed works are complete in 2025, it can treat wastewater for up to 2.4 million population equivalent (PE). The GDDP is acknowledged as being another critical piece of national infrastructure and will secure the long term sustainable growth of Fingal and the Greater Dublin Area. The GDDP will assist Fingal County Council in delivering on its ambitious plans for the future development of the County, not just in terms of local spatial planning policy, but in also supporting the consolidation of the metropolitan area, sustainable population growth, economic prosperity and continued confidence for investors in the long term.

Fingal County Council has recently prepared a SuDS Guidance Document – *“Green/ Blue Infrastructure for Development”* (Appendix 11), which will guide applicants in the provision of SuDS for new development through the planning process and will promote and support the strategic planning of surface water management in Fingal. Increased flooding associated with climate change, rising sea levels and severe rainfall episodes require Fingal and the wider Dublin area to adapt our flood risk management response to address these events. The Council will continue to work with the OPW and Irish Water and other statutory bodies to address the strategic planning and management of surface water to reduce run off, improve the drainage network and protect the water quality in our rivers, streams and coastal waters.



The Council will continue to tackle issues that are contributing to Ireland's greenhouse gas emissions and will facilitate the delivery of numerous gas and electricity projects providing additional energy capacity across the County, in addition to upholding quality standards in respect of environmental safety, public lighting, air quality and noise management. In an effort to reduce our carbon footprint, it will be necessary to diversify our energy production systems in the future away from fossil fuels and towards green energy such as wind, wave, solar and biomass, together with smart energy systems and the electrification of transport fleets.

Ireland's energy sector will need to adapt to embrace a more diverse range of low, zero-carbon and renewable energy sources in order to provide for a more environmentally sustainable, stable and indigenous energy supply. Ireland's direct linkages with other EU countries by both air and sea and subsea energy connections offers significant opportunities (particularly for transport and energy infrastructure), given their advantages in terms of resilience and ease of movement across internal borders, particularly given the UK's withdrawal from the EU.

The provision of a good quality high speed broadband and telecommunications service is essential for supporting and attracting business and investment and we will continue to pursue opportunities to facilitate changes and advances in technology while also ensuring that the environment and visual amenities of the County are protected. The Council is committed to the continued development and improvement of the County's digital infrastructure and services. The widespread availability of a high-quality ICT network within the County will be critical to the development of our economy while also supporting social development. The demand for super connectivity and the importance of secure and reliable communications networks will increase in the future and the transition to 5G use will require Local Authorities to play a greater role in supporting the rollout of digital connectivity infrastructure and telecoms networks.

In June 2020, Balbriggan was chosen as Ireland's first town to be named as a Smart District in a move that will put it at the cutting edge of "smart" projects to improve services, create jobs and build a better community. The Council will continue to investigate opportunities to enhance community life, support economic opportunities and drive innovation through a number of smart district projects.

11.4 Strategic Aims

Fingal County Council will continue to identify and support the provision of key enabling infrastructure at strategic development sites in Fingal, as outlined in the MASP, to facilitate their release for development during the lifetime of the Development Plan and Fingal County Council will consult with all relevant public service providers to ensure that zoned lands are serviced in a timely fashion to facilitate opportunities for employment, enterprise creation and residential development.

Fingal County Council will continue to support the principle of the circular economy on re-usables and water and waste reduction. Promoting and delivering more sustainable forms of water and waste management in Fingal in line with circular economy principles will be central to the overall approach of the Draft Plan. Other key strategic aims include the following:

- Fingal will continue to support Irish Water's strategic water service projects and infrastructure improvements and engage with them to facilitate the timely delivery of the water services infrastructure necessary to support Fingal's settlement hierarchy, sustainable growth and mitigation and adaptation to climate change, in line with national and regional policy. Fingal will continue to support the implementation of the *IW Water Services Strategic Plan, 2015* (and any subsequent plan), and key projects in order to maintain and improve existing services and service further growth.
- Ensure the implementation of water conservation and SuDS measures to reduce the level of surface water run-off, improve water quality and contribute to adaptation to climate change through natural solutions and continue to support initiatives to improve water quality and to achieve “good ecological” status in compliance with the *Water Framework Directive* and associated River Basin Management Plans, particularly those which employ nature-based management measures.
- Our transition towards a circular economy is already underway, with many businesses, consumers and public authorities in Europe embracing this sustainable model through the adoption of a new Circular Economy Action Plan – one of the main building blocks of the European Green Deal, Europe’s new agenda for sustainable growth. The Council will continue to support and promote Government policy on eliminating landfill, reducing the amount of waste produced and maximising waste as a source of products and renewable energy and will prioritise waste prevention, re-use, recycling and recovery over the disposal of waste. In accordance with the *Eastern and Midlands Region Waste Management Plan 2015–2021 (EMRWMP)* (and any future National Waste Management Plan), the waste management policies and objectives included in this chapter will support a move towards achieving a “circular economy” which is essential if Fingal and the wider Eastern Region is to make better use of resources and become more resource efficient.
- Facilitate and promote the development of energy networks to facilitate sustainable growth and economic development and support the transition to alternative, renewable, decarbonised and decentralised energy sources, technologies and infrastructure. The Council will continue to support the development of a safe, secure and reliable supply of electricity and encourage the development of enhanced electricity networks, facilitating new transmission infrastructure projects under *EirGrid's Grid Development Strategy*. Smart Grids and Smart Cities can significantly improve the efficiency and quality of complex systems such as electricity, water, waste, energy and transport services, thereby reducing their costs while contributing to the “green economy”.

- The RSES supports actions to strengthen communications links to develop a stable, innovative and secure digital communications and services infrastructure on an all-island basis. This is a fast-moving and evolving infrastructure and we need to be able to respond and adapt to future communications networks and technology along with changing work practices (such as more people working from home) and emerging economic models. Fingal is committed to the continued development and improvement of the County's digital infrastructure and services. The widespread availability of a high-quality ICT network within the County will be critical to the development of Fingal's economy whilst also supporting social development.
- Continue to work proactively with the EPA to monitor and improve air quality in Fingal and support the proactive management, monitoring and mitigation of noise pollution and support the *Noise Action Plan for the County of Fingal 2019–2023* and the *Environmental Noise Action Plan for the Dublin Agglomeration 2018–23* and any subsequent plans

11.5 Water Services Policies and Objectives

11.5.1 Water Supply and Wastewater

Water services are key considerations when Fingal is determining the core strategy, population growth and settlement hierarchy. It also has a key role in the economic development of the County as both inward investment and employment opportunities are attracted to high quality water service systems, which increases Fingal's attractiveness as a place to do business. Investment in water and wastewater infrastructure must be coordinated as part of the overall planning process to ensure the efficient provision of services and to support future development.

The *Urban Wastewater Treatment Directive* and the *Drinking Water Directive* set out the required standards for wastewater and water supply respectively and have been transposed into Irish legislation through Regulations. National policy for the delivery and development of water and wastewater services is set out in the *Water Services Policy Statement 2018 – 2025 (WSPS, 2018)*, which highlights key objectives for the delivery of water and wastewater services up to 2025.

Irish Water in its role as a prescribed body guides Planning Authorities in relation to water services through its recommendations on planning applications and on statutory development plans. IW is responsible for the provision of public water services and the management of water supply and wastewater investment. The sustainable management of water is provided for through capital investment in water services provision under the *IW Water Services Strategic Plan (WSSP) 2015* and related Capital Investment Plans and Programmes. The provision of an adequate supply of water and wastewater facilities is crucial to facilitate and sustain the growth of Fingal and the greater Dublin area and we will continue to work with IW and the Regional Assembly to ensure that IW's Investment Plan fully aligns with Fingal's Settlement Strategy.

IW Investment Plans contain a mix of projects, national programmes and capital maintenance programmes. The WSSP sets out the objectives of IW for the provision of water services over a period of 25 years and provides strategic direction to the preparation of Investment Plans during this time. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term. This Strategic Framework identifies and prioritises the key objectives required to ensure the public water system can meet the challenges of the future.

Water supply for the wider Dublin area is at critical levels of demand and to facilitate further growth in line with NPF population growth projections, prioritisation of water supply investment should occur. The importance of investing in the Region's infrastructure to ensure it remains a competitive location is recognised. IW has identified key projects for the Region which are included in Project Ireland 2040 to support planned development and maintain and improve existing services. Specifically, the Water Supply Project for the Eastern & Midlands Region is required to ensure sufficient treated water is available to meet the long-term water supply needs of the Region to provide for projected growth up to 2050 and contribute to resilience and security of supply for the area.

The phased upgrade of the Ringsend WWTP Project and Greater Dublin Drainage Project are key wastewater infrastructure investment priorities in the short-to-medium term, whilst the Water Supply Project for the Eastern and Midlands Region (EMR) is identified as a critical longer-term project to ensure resilience and security of supply.

The Greater Dublin Drainage Project aims to provide drainage infrastructure to support the continued development of the Greater Dublin Area. The project aims to provide long term sustainable wastewater drainage and treatment.

Ireland is not a water stressed country. However, we need to operate our water network to cater for growth and to optimise this great natural resource. Recent droughts and storms have left some people with no water or reduced water, including a water conservation order (hosepipe ban) for the first time in Ireland. To prevent this happening in the future IW must plan ahead and have prepared a *National Water Resources Plan* (NWRP, 2021) to determine the water we can provide now and into the future. The NWRP sets out how we will balance the supply and demand for drinking water over the short, medium and long term and it will be a 25 year strategy to ensure we have a sustainable, secure and reliable drinking water supply for everyone. Fingal County Council will continue to work with Irish Water to implement the policies and recommendations included within this NWRP.

IW's *National Wastewater Sludge Management Plan* (NWSMP, 2016) sets out a nationwide standardised approach to ensure that treated public wastewater sludge across the country is effectively managed, stored, transported and re-used or disposed of in a sustainable way, to the benefit of the public and the environment we all live in.

The table below highlights Irish Water's "Statement of Capacity" which contains the broad strategic water and wastewater capacities at present and the relevant infrastructural investments programmed by Irish Water in its Investment Plan.

National Water Resources Plan (NWRP)



The plan will set out how we can **balance the amount of drinking water we can supply with the demand for water that is needed over the short, medium and long term.**



Calculate the demand for water from homes, businesses, farms and industry now and into the future

Assess the amount of water we have available



Identify areas where there is not enough water supply to meet demand

How climate change will impact our water

Develop a national plan to ensure there will be enough water to meet demand



Table 11.1: Irish Water's Statement of Capacity (Irish Water, November 2021)

Draft Statement of Feasibility for Fingal to Inform the Draft CDP			
Towns and Villages	Wastewater Treatment	Wastewater Network	Water Supply & Network
Metropolitan Area	Long Term will need the Greater Dublin Drainage Project & Ringsend WWTW Upgrades	Drainage Area Plan (DAP) is underway for most Metro settlements-Fingal Areas. North Fringe Sewer (NFS) area Swords Malahide. Proposed to start in 2022 – Balbriggan Skerries	The Greater Dublin Area is constrained. Will need the Water Supply Project (WSP) Long term
Swords	Swords WWTW – Should be sufficient headroom. However will need a project in the longer term (full realisation of Metro North)	Issues in areas. DAP working on upgrade solutions. Immediate upgrades developed into projects. Fosterstown Masterplan extension to Malahide Roundabout.	Leixlip WTW. Water conservation and the National Leakage Reduction programme will be an important part of water supply management
Blanchardstown	Ringsend upgrades underway & GDD project in the longer term	BRDS – IW developing high level servicing plan of all development land for the fringes of the 9c catchment. Includes Barnhall SDZ. Ongar, Cherrywood, Huntstown, Hollystown, Mulhuddart, etc. – outputs expected Dec. LA planning departments to be invited to workshop displaying indicative routing and size requirements to zoned lands. (Infrastructure Development Plans)	Leixlip WTW. Water conservation and the National Leakage Reduction programme will be an important part of water supply management
Portmarnock	Ringsend Upgrades underway	Planned project for P.Stn upgrade at Portmarnock Bridge. P.s needs to be delivered. Existing network pumping control being implemented to get another phase in.	Leixlip WTW. Water conservation and the National Leakage Reduction programme will be an important part of water supply management
Howth	Ringsend Upgrades underway	Planned project for Doldrum Bay. Will cater for existing discharge from existing storm system.	WS upgrades almost complete. Howth Reservoir Upgrade – Feasibility stage
Baldoyle / Sutton	Ringsend Upgrades underway	NFS – no issues	Leixlip WTW. Water conservation and the National Leakage Reduction programme will be an important part of water supply management
Donabate	Portrane TW has headroom	P.S's under construction with system upgraded to facilitate 3000 units.	Leixlip WTW. Watermain extension/Upgrade in progress

Malahide	Can accommodate this level of growth	Current project at Kinsealy Lane. Malahide DAP looking at reversing flow to North Fringe Sewer now the new Kinsealy pumpstation is built. Will require new station at Kinsealy Lane/ Castleway. Main town some network capacity issues. DAP will identify solutions.	WS upgrades recently completed
Towns & Villages	Issues in Oldtown & Turvey.	Oldtown may possibly to connect to Swords, updates expected during the CDP process. No current plans for a project in Turvey.	
Core area			
Balbriggan	Barnageeragh WWTW has ample headroom	Quay Street upgrade planned for future development 10 year Horizon delivery 2022. New network required to get Balbriggan north area and South of Quay St to Dublin Road. IW developing plan of infrastructure required. DAP starting in 2022 for remainder of Agglomeration.	Bog of the Ring & Leixlip
Rush	Portrane WWTW has ample headroom	Upgraded.	Leixlip (as above)
Lusk	Portrane WWTW has ample headroom	Generally no issues, some local concerns	Leixlip (as above)
Skerries	Barnageeragh WWTW has ample headroom	Rush Road pumping station completed	Leixlip (as above)
Towns & Villages	Issues in Naul, will be addressed under the Small Towns & Villages Growth Programme	Loughshinny under construction to BallSkerryes Agglom. (goes to Rush road upgraded Pumping Station)	
Rural	Colecot & Ballyboughal are constrained settlements	No immediate plans for upgrades.	

Policy IUP1 – Irish Water-Water Services Infrastructure

Support Irish Water's strategic water service projects and infrastructure improvements and engage with them to facilitate projects that deliver the water services infrastructure necessary to support Fingal's settlement hierarchy, sustainable growth and mitigation and adaptation to climate change in line with national and regional policy.

Policy IUP2 – Irish Water-Water Quality and Water Conservation

Continue to support IW in their role in water quality, water conservation and addressing leakage and support opportunities for water conservation as part of new and retrofitted developments and encourage the consideration of alternative water sources.

Policy IUP3 – Regional Wastewater Treatment Plant

Facilitate the provision of appropriately sized and located wastewater treatment plants and networks including a new Regional Wastewater Treatment Plant and the implementation of other recommendations of the Greater Dublin Strategic Drainage Study, in conjunction with relevant stakeholders and services providers, to facilitate development in the County and Region and to protect the water quality of Fingal's coastal and inland waters through the provision of adequate treatment of wastewater.

Policy IUP4 – Irish Water – Water Service Projects

Support Irish Water in delivering key water service projects in the County, as per Table 11.1 above.

Policy IUP5 – Greater Dublin Drainage Study

Promote and support the implementation of the Greater Dublin Strategic Drainage Study, Dublin Region Local Authorities (2005) GDSDS.

Policy IUP6 – Water Supply

Liaise with Irish Water to ensure that an adequate supply of drinking water for domestic, commercial, industrial and other uses is available for the sustainable development of the County

Policy IUP7 – Additional Water Source

Liaise with, support and facilitate Irish Water during the lifetime of the Plan to identify and develop an additional sustainable water source serving the Eastern and Midlands Region and the existing population of Fingal while also facilitating the sustainable development of the County, in accordance with the requirements of Fingal's Settlement Strategy and associated Core Strategy.

Objective IUO1 – Water Conservation Measures

Promote the sustainable use of water and water conservation and demand management measures in new and existing developments within the County, to promote water conservation by all water users.

Objective IUO2 – Water Safety Plans

Protect both ground and surface water resources and work with Irish Water to develop and implement Water Safety Plans to protect sources of public water supply and their contributing catchment and to reduce leakage in accordance with any future Regional Water Conservation Strategy.

Policy IUP8 – Strategic Water Services Infrastructure

Identify and support the provision of key enabling infrastructure at strategic development sites in Fingal, as outlined in the MASP, to facilitate their release for development during the lifetime of the Development Plan and consult with all relevant public service providers to ensure that zoned lands are serviced in a timely fashion to facilitate opportunities for employment, enterprise creation and residential development.

Objective IUO3 – Water Services Infrastructure

Ensure that all new developments in areas served by a public foul sewerage network connect to the public sewerage system and to comply with the requirements of the Irish Water Foul Sewer specification (where applicable).

Objective IUO4 – Separate Foul and Surface Water Drainage Systems

Require all new development to provide separate foul and surface water drainage systems and to prohibit the connection of surface water outflows to the foul drainage network where separation systems are available, and vice versa (foul to surface), where separation systems are available.

Objective IUO5 – Protection of Water and Drainage Infrastructure

Work in conjunction with Irish Water to protect existing water and drainage infrastructure by protecting existing wayleaves and buffer zones around public water service infrastructure.

Objective IUO6 – Buffer Zones around Wastewater Treatment Plants

Establish a buffer zone around all wastewater treatment plants suitable to the size and operation of each plant. The buffer zone should not be less than 100m from the odour producing units.

Objective IUO7 – Buffer Zones around Pumping Stations

Establish an appropriate buffer zone around all pumping stations suitable to the size and operation of each station. The buffer zone should be a minimum 35 metres – 50 metres from the noise/odour producing part of the pumping station to avoid nuisance from odour and noise. For small scale developments (less than 15 houses) a smaller buffer zone may be agreed with the Planning Authority.

Policy IUP9 – Sludge Management Plan

Have regard to the policies and objectives contained in Irish Water's *National Wastewater Sludge Management Plan* (2016) and subsequent plans, and to support appropriate options for the extraction of energy and other resources from sewerage sludge and continue to work with Irish Water and other relevant stakeholders to ensure the provision of facilities for the safe and sustainable management of sludges (sewage, waterworks, agricultural, industrial and septic tank) that are generated within the County.

Objective IUO8 – Taking in Charge of Private Drainage Infrastructure

Require that all new surface water infrastructure within public or private developments be constructed in accordance with the standards set out within the Greater Dublin Regional Code of Practice for Drainage Works, as amended, irrespective of the management and maintenance regime proposed for the development or whether or not the development is intended to be taken in charge, in full or in part (i.e. infrastructure shall be to designed to taking in charge standards).

11.5.2 Surface Water and Flood Risk Management

Surface water management and flood prevention remain the responsibility of the Local Authorities and the Office of Public Works (OPW). The management of surface water drainage in Fingal over the lifetime of the Development Plan and beyond will be key to reducing surface water run-off both mitigating and adapting to climate change and flooding.

11.5.2.1 Nature-Based Surface Water Solutions through SuDS

Approaches to manage surface water that take account of water quantity (flooding), water quality (pollution), biodiversity (wildlife and plants) and amenity are collectively referred to as SuDS.

The approach of using SuDS can best be summarised as offering a “total” solution to rainwater management and is applicable in both urban and rural situations. By using SuDS techniques, water is either infiltrated or conveyed more slowly to the drainage system and ultimately to water courses via permeable paving, swales, green roofs, rain water harvesting, detention basins, ponds and wetlands. The increased use of SuDS helps control the rate of surface water run-off, thereby, reducing the volume of rainfall being discharged to our drainage systems and potential for overflows and localised flooding. Facilitating run-off to percolate through natural features such as the natural ground, tree pits, green roofs and swales, will provide for staged water treatment helping to remove pollution and sediments and thereby, improving the water quality of our rivers in line with the requirements of the WFD.

Fingal County Council will actively encourage and promote the use of green solutions such as swales, tree pits, green roofs, downpipe planters, ponds and wetlands for drainage, which minimise negative environmental impacts resulting from development. Above ground drainage solutions maximise the benefits in terms of water quality, flooding, biodiversity, amenity, climate change and maintenance amongst others.

The incorporation of the principle of SuDS in all public and private developments in urban areas is recommended as is the need for diversion of storm water from combined sewers where possible in order to overcome challenges in relation to management of surface water and its separation from foul sewage. Fingal's SuDS Guidance Document – *“Green/ Blue Infrastructure for Development”* (as amended), is intended to guide applicants in the provision of SuDS for development through the planning process and a key objective is to provide clarity for developers and a general agreement across Fingal County Council's sections at an early stage of the development process in terms of how SuDS can be incorporated on a development site. This will ensure the early consideration of surface water drainage management and open space provision in the development design process, with the overarching principle of SuDS design being that surface water runoff should be managed for maximum benefit, including water quantity, water quality, amenity, and biodiversity.

Swale, filter drains and an Attenuation Basin in Malahide



(Source: FCC's SuDs Guidance Document – *“Green/ Blue Infrastructure for Development”* (FCC, 2021))

The use of green solutions for drainage is underpinned in the NPF and *Fingal's Climate Change Adaptation Plan 2019* and is a key cornerstone of achieving flooding and Water Framework Directive objectives.

See also Appendix 11 (SuDS Guidance Document), and Chapter 14, Development Management Standards (Section 14.20.3 SuDS)

Policy IUP10 – Water Conservation and SuDS

Promote the inclusion of water conservation and SuDS measures in all developments, to reduce the level of surface water run-off, improve water quality and contribute to adaptation to climate change through natural solutions.

Policy IUP11 – Multi-Disciplinary Approach

Adopt a multi-disciplinary approach to the implementation of policies in relation to wetlands, flood alleviation measures, public access to rivers and riparian/waterway/green corridors and encourage measures for the “greening” of new developments including the use of green roofs, brown roofs, green walls and water harvesting.

Objective IUO9 – Surface Water Drainage Systems

Maintain and enhance existing surface water drainage systems in the County and to require SuDS in new developments where appropriate, as set out in the *Greater Dublin Strategic Drainage Study (Vol 2: New Development) / Greater Dublin Regional Code of Practice for Drainage Works*.

Objective IUO10 – SuDS; Nature-Based Solutions

SuDS shall incorporate nature-based solutions and have regard to the objectives set out in Fingal's Guidance Document – *“Green/ Blue Infrastructure for Development”*, as amended. (Appendix 11).

Objective IUO11 – SuDS in New Developments

SuDS shall be incorporated into all parts of a development (open spaces, roads, footpaths, private areas), and have regard to the FCC SuDS Guidance Document – *“Green/ Blue Infrastructure for Development”*, as amended (Appendix 11), and shall ensure:

- That the design of SuDS enhances the quality of open spaces and when included as part of any open space provision, it must contribute in a significant and positive way to the design and quality of the open space.
- Open space areas shall not be dominated by SuDS features.
- Underground tanked systems, whether concrete or plastic, are the least favoured means for surface water management and shall only be used when green solutions have proven not feasible.

See also Appendix 11 (SuDS Guidance Document), and Chapter 14 Development Management Standards (Section 14.20.3 SuDS).

Objective IUO12 – Green Roofs

Require the use of Green Roofs particularly on apartment, commercial, leisure and educational buildings as part of the overall surface water management strategy for each development, where appropriate.

Objective IUO13 – Surface Water Run-Off

Require that all surface water run-off from new / extended domestic driveways, repaired/ replacement driveways and vehicular entrances (where such development is not exempted from the requirement to obtain planning permission) is managed using SuDS, ensuring no increase in surface water discharges to the public drainage network.

Objective IUO14 – Buffer Zones for Riparian Corridors

Implement policies relating to the buffer zones for riparian corridors and SuDS, having regard to Fingal's SuDS Guidance document *"Green/ Blue Infrastructure for Development"*, as amended.

Objective IUO15 – Surface Water Management Plan

Require the preparation of a Surface Water Management Plan as part of all new developments which shall include the following:

- Identify and assess the existing surface water movements through the development before considering and developing a surface water management system using SuDS, having regard to our Fingal Guidance Document – *"Green/ Blue Infrastructure for Development"*, as amended. (Appendix 11).
- Incorporate SuDS along the route of the water movement to enhance the water quality effects of nature-based systems at the different stages – Treatment Train approach from source to discharge.

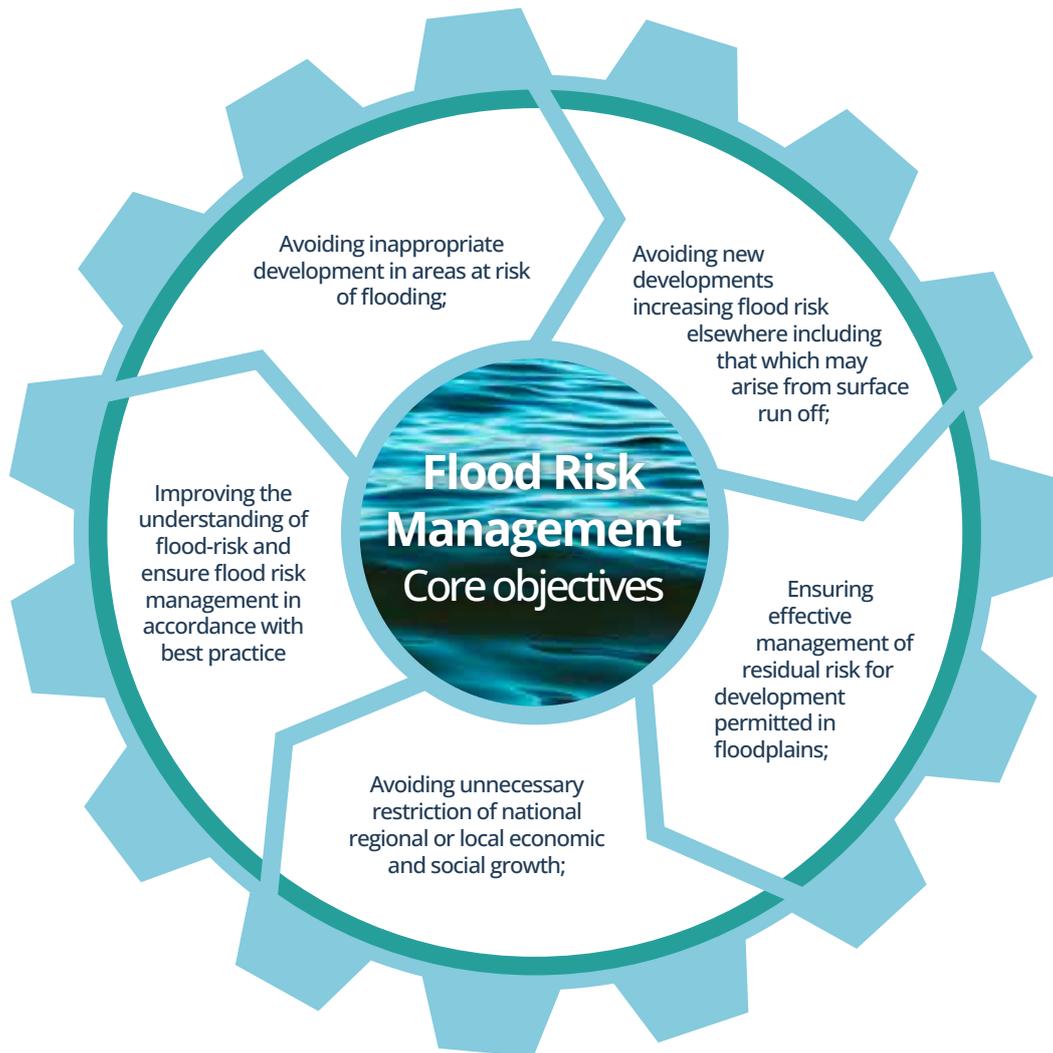
11.5.2.2 Flood Risk Management

The OPW is the lead organisation for flood risk management in Ireland and they have now created detailed Flood Maps to describe existing and potential flood risk. Flood Plans set out how that flood risk is to be managed through investment in flood relief schemes and other policy measures. As part of the preparation of statutory plans and development proposals, Fingal has regard to the recommendations and flood maps arising from the Fingal-East Meath CFRAM Study and the Eastern CFRAM Study. Fingal County Council is covered by two Flood Risk Management Plans:

- **Flood Risk Management Plan for the Liffey & Dublin Bay River Basin (UOM09)**
Areas for further assessment included in this plan: Clonee, Belcamp park, Balgriffin, Kinsaley, Mulhuddart, Lucan to Chapelizod, Malahide, Sutton and Baldoyle, Sutton and Howth North, Swords South and Santry
- **Flood Risk Management Plan for the Nanny-Delvin River Basin (UOM08)**
Areas for further assessment included in this plan are: Donabate, Portrane, Balbriggan, Skerries, Lusk, Staffordstown/Turvey, Oldtown, Swords and Rush.

Fingal will continue to work in close partnership with the OPW on implementing the remaining projects under both FEMFRAMS and CFRAMS as well as minor non-catchment based projects. We will continue to protect and enhance the County's floodplains, wetlands and coastal areas as vital green infrastructure which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reducing the need to provide flood defences in the future and to ensure that new development does not impact on important wetland sites within river / stream catchments. The County's floodplains are also being protected by way of technical input into forward planning processes such as the preparation of Local Area Plans, Masterplans etc.

Fingal is also progressing the Santry River Restoration and Greenway Project.



Fingal is continuing to examine ways to more effectively manage the potential impacts of climate change on flooding and flood risk in line with the *Flood Risk Management Climate Change Sectoral Adaptation Plan (2019)*. In response, the Strategic Flood Risk Assessment (SFRA) for the Development Plan has considered climate change and resultant increases in rainfall intensity, changed rainfall patterns and increased risk from fluvial and coastal flooding.

Inland Fisheries Ireland's (IFI) *"Planning for Watercourses in the Urban Environment"* (2020) outlines an integrated watercourse protection strategy that has been developed through consultation with a wide range of experts in the area. Watercourses including rivers, lakes and streams are an integral part of our environment and if managed appropriately can significantly improve the quality of life for people living in urban areas. The implementation of this strategy should not only protect watercourses and their associated riparian zones in urban areas, but also shall provide other benefits important for the wellbeing of people living nearby.

See also Chapter 5 Climate Action (Section 5.5.6 – Flood Resilience) for further information on flood risk management.

11.5.2.3 Strategic Flood Risk Assessment (SFRA)

A Strategic Flood Risk Assessment (SFRA) of the County has been carried out to support the Strategic Environmental Assessment of the Fingal Development Plan. The assessment was carried out in accordance with the requirements of the Flood Risk Management Guidelines and the EU Water Framework Directive. The SFRA Report is a separate document to be read in parallel with this Plan. The SFRA identifies and maps flood risk in the County and has supported a sequential approach to planning, in accordance with the recommendations of the Flood Risk Management Guidelines.

Policy IUP12 – Flood Risk Management

Ensure the continued incorporation of Flood Risk Management into the spatial planning of the County of Fingal, to meet the requirements of the EU Floods Directive and the EU Water Framework Directive and to promote a climate resilient County.

Policy IUP13 – Protection of Fingal's Floodplains, Wetlands and Coastal Areas

Protect and enhance the County's floodplains, wetlands and coastal areas subject to flooding as vital green infrastructure which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reducing the need to provide flood defences in the future.

Policy IUP14 – OPW

Continue to support and assist the OPW in implementing and delivering the relevant Catchment-Based Flood Risk Assessment and Management Programmes for rivers, coastlines and estuaries within Fingal.

Objective IUO16 – OPW Flood Risk Management Guidelines

Have regard to the OPW *Flood Risk Management Guidelines* (2009), as revised by Circular PL 2/2014, when assessing planning applications and in the preparation of statutory and non-statutory plans and to require site specific flood risk assessments are to be considered for all new developments within the County. All development must prepare a Stage 1 Flood Risk Analysis and if the flooding risk is not screened out, they must prepare a Site Specific Flood Risk Assessment (SSFRA) for the development, where appropriate.

Objective IUO17 – Strategic Flood Risk Assessment

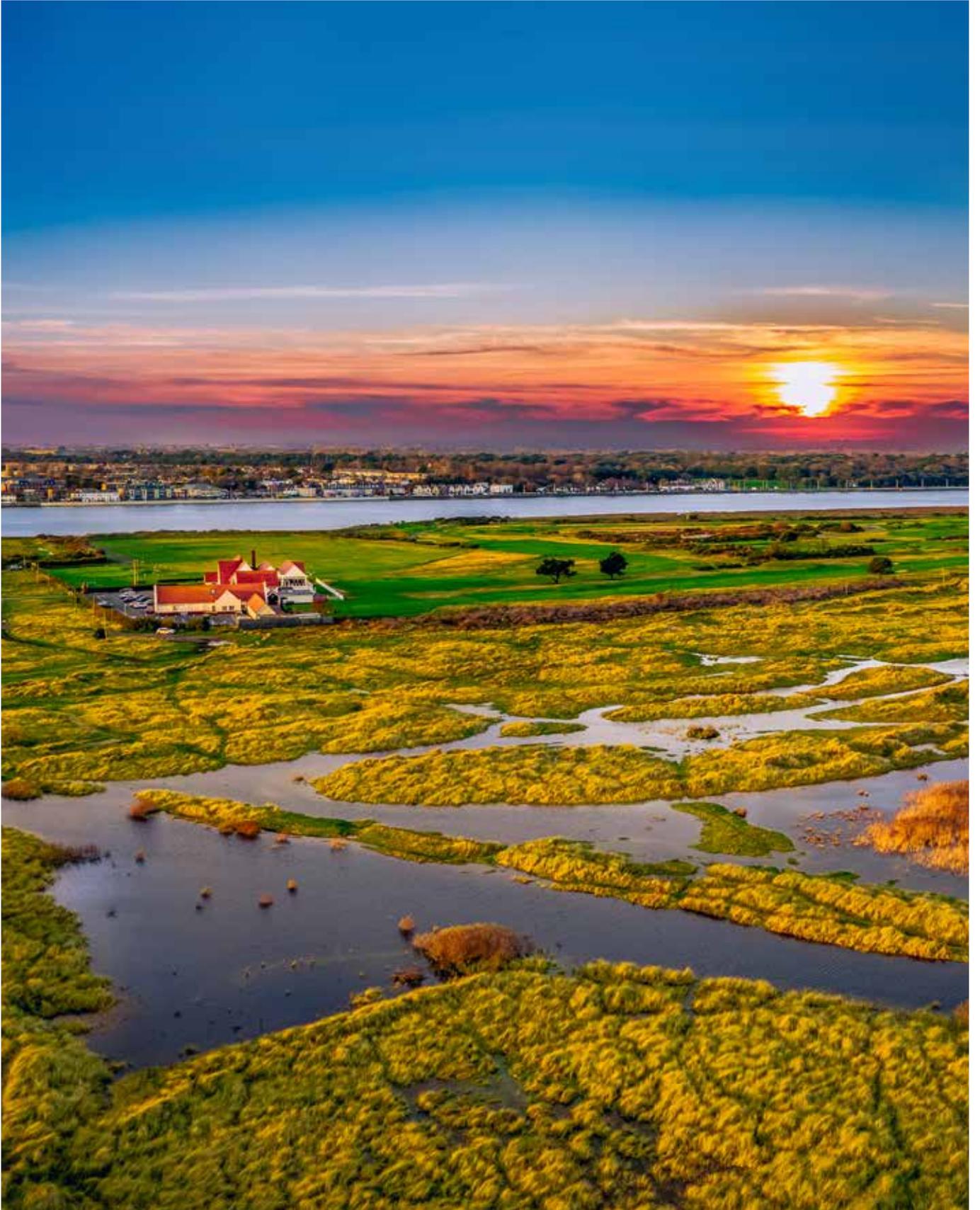
Implement and comply fully with the recommendations of the Strategic Flood Risk Assessment prepared as part of the Fingal Development Plan 2023–2029.

Objective IUO18 – SFRA Recommendations

All Flood Risk Assessments must comply with the recommendations from the SFRA report.

Objective IUO19 – Medium Range Future Scenario Climate Change Predictions

Surface water designs must include Medium Range Future Scenario Climate Change Predictions.



Objective IUO20 – Tolka River Flood Study Maps

Prepare a flood map using data from both the River Tolka Flood Study extents and recently provided National Indicative Fluvial Mapping as well as site specific modelling to ensure the most up-to-date flood maps for Tolka River are available, within 1 year of making this Development Plan.

Objective IUO21 – Precautionary Principle in OPW Guidelines

Require all developments in the County to be designed and constructed in accordance with the “Precautionary Principle” as detailed in the OPW Guidelines and to minimise the flood risk in Fingal from all potential sources of flooding as far as is practicable, including coastal, pluvial, fluvial, reservoirs and dams, and the piped water system.

Objective IUO22 – Flood Alleviation Measures

Support and facilitate the provision of new or upgrading of existing flood alleviation measures where appropriate.

Objective IUO23 – Protection of Rivers, Streams and Watercourses

Ensure that where flood protection or alleviation works take place that the natural and cultural heritage of rivers, streams and watercourses are protected and enhanced to the greatest extent possible.

Objective IUO24 – Cross-Boundary Flood Management

Work with neighbouring Local Authorities when developing cross-boundary flood management work programmes and when considering cross-boundary development.

11.5.3 Water Quality of Waterbodies

Ireland's rich water resources are of strategic importance and clean water is essential for creating a healthy society and supporting a growing economy. Our drinking water is primarily sourced from our rivers and lakes as well as from groundwater sources. The NPF notes that it is essential that we have a resilient water supply to serve the existing population and for the additional 1 million people projected by 2040. Our water bodies are also a resource for leisure activities and for the tourism sector and most of our bathing waters are of very high quality.

The Environmental Protection Agency (EPA) consider urban wastewater to be one of the principal pressures on water quality in Ireland and the treatment and disposal of wastewater in an environmentally sound manner is critical for human health. This means that we need to ensure adequate treatment and capacity, storm water overflows operating correctly and that we avoid direct discharges of untreated wastewater.

In conjunction with the Geological Survey of Ireland (GSI) a Groundwater Protection Scheme has been prepared for Fingal, which provides Guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. Use of the scheme helps to ensure that within the planning and licensing processes due regard is taken of the need to maintain the beneficial use of groundwater. The Groundwater Protection Scheme is available at www.gsi.ie.

11.5.3.1 Quality of Bathing Water (Coastal)

The *Bathing Water Quality Regulations, 2008*, set out our obligations for bathing water quality checks and public information during the bathing season. Fingal take 9 samples in total, 1 before and 8 during the bathing season. Samples are generally taken fortnightly during the bathing season. Bathing water quality on Fingal beaches is generally classified as “Good” or “Excellent”, and water quality results for Fingal's beaches can be checked on the EPA website: <https://www.beaches.ie/>. If test results don't meet the necessary standards, Fingal has a process in place for notifying beach users.

Fingal currently monitors 10 identified beaches within the County for water quality, with regular updates on bathing water quality during the bathing season, which runs from 1 June to 15 September each year. Fingal will continue to support the retention of the Blue Flag status of Velvet Strand beach at Portmarnock.

11.5.3.2 The River Basin Management Plan (RBMP) for Ireland 2018 to 2021

The RBMP sets out and seeks to implement supporting measures to improve water quality in over 70 water bodies on a prioritised basis and identifies the actions that Ireland will take to improve water quality and achieve “good” ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2027. Ireland is required to produce a RBMP under the *Water Framework Directive (WFD)*. IW's planned capital investment in the upgrading of wastewater treatment plants and collection systems will address the priorities set out in the RBMP.

11.5.3.3 Draft River Basin Management Plan (RBMP) for Ireland 2022–27

The third cycle RBMP will be published in 2022 and will cover the period from 2022 to 2027. The Plan aims to build on the progress made during the previous cycles to ensure the long-term delivery of water quality improvement. The third plan and further cycles every six years will involve the ongoing protection of water bodies

Recent data on the existing water quality in Fingal for the period 2013–2018 (published in 2019) shows that the majority of our river and coastal water bodies have achieved good or high status, while our lakes and transitional waters have significantly higher percentages of poor status water bodies.

Policy IUP15 – Water Quality

Support initiatives to improve water quality and to achieve “good ecological” status in compliance with the Water Framework Directive and associated River Basin Management Plans, particularly those which employ nature-based management measures, and explore opportunities for targeted watercourse improvement interventions which are designed to deliver a wider range of environmental benefits.

Policy IUP16 – IFI Guidelines “Planning for Watercourses in the Urban Environment”, 2020

Protect inland and sea fisheries and take full account of Inland Fisheries Ireland Guidelines “*Planning for Watercourses in the Urban Environment*” 2020, when undertaking, approving or authorising development or works which may impact on rivers streams, watercourses, estuaries, shorelines and their associated habitats.

Policy IUP17 – Groundwater

Strive to achieve “good status” in all waterbodies and protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources in compliance with the Water Framework Directive, the *Eastern River Basin Management Plan 2017–2021* and any subsequent plan.

Policy IUP18 – Groundwater Protection Schemes

Promote the reduction of groundwater pollution and to protect and improve the aquatic environment and water-dependent ecosystems through proactive discharge and emissions management and through the enhancement of the physical condition of waterbodies and to implement the recommendations contained in any Groundwater Protection Scheme prepared under EU Ground Water Directives.

Policy IUP19 – Bathing Water Quality and Beaches

Maintain and enhance Fingal’s beaches for bathing to a high standard and protect and improve water quality and bathing facilities for them to attain “Blue Flag” standards.

Objective IUO25 – River Basin Management Plans

Maintain, improve and enhance the environmental and ecological quality of our surface waters, groundwater and aquifers by implementing the EU Water Framework Directive through the relevant programme of measures set out in the River Basin Management Plans and to take into consideration the River Basin Management Plan and Programme of Measures when considering new development proposals.

Objective IUO26 – Riparian Corridors

Establish riparian corridors free from new development along all significant watercourses and streams in the County:

- Ensure a minimum 10m wide riparian buffer strip measured from the top of the bank either side of all watercourses. This minimum 10m wide riparian buffer strip applies to lands within urban areas – i.e. within designated settlement boundaries (as per FCC’s Settlement Hierarchy set out in Chapter 2, Planning for Growth, Table 2.20).
- A minimum 30m wide riparian buffer strip is required in all other areas outside of urban areas.
- Where lands encompass urban and rural areas, a transitional approach from the urban riparian requirements to the rural riparian requirements may be appropriate and will be assessed on a case-by-case basis.
- Notwithstanding the above, cognisance must be taken of Flood Zone A and B, as outlined in the SFRA.

See also Chapter 14 Development Management Standards (Section 14.20.5 Riparian Corridors) and the SFRA.

Objective IUO27 – De-culverting of Watercourses

Promote de-culverting to restore watercourses to their natural environmental state.

11.6 Waste Policies and Objectives

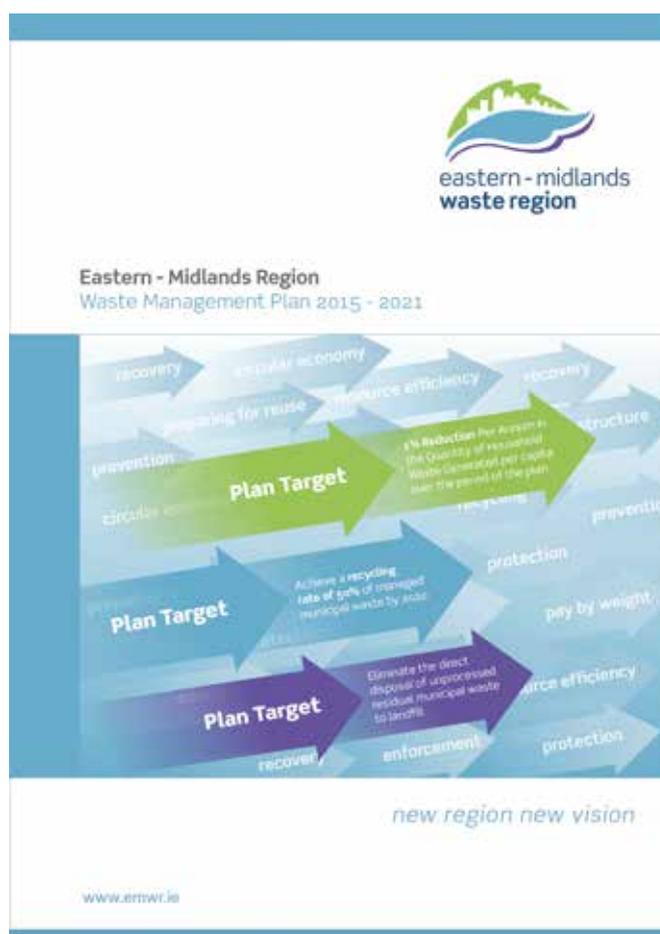
Fingal's approach to waste management is consistent with the EU Waste Hierarchy and the circular economy approach to waste which promotes the principles of prevention, re-use, recycling, energy recovery and sustainable disposal. The transition towards a circular economy is already well underway and the *Government's Waste Action Plan for a Circular Economy 2020–2025* outlines the new focus which goes beyond simple management of waste and moves towards how we look at resources more broadly, thereby capturing the maximum value of all materials. This Waste Action Plan provides Ireland with a roadmap for waste planning and management and is supported by the *Circular Economy Bill (2021)* and Government Strategy to comply with EU Waste Directive obligations.

Fingal will continue to facilitate the implementation of national legislation and national and regional waste management policy having regard to the waste hierarchy, including the *Eastern Midlands Region Waste Management Plan 2015–2021 (EMRWMP)*, which informs these Development Plan policies and objectives. The implementation of the EMRWMP must ensure that European and national mandatory targets are achieved and, in doing so, that the health of communities in the region, its people and the environment are not compromised. A *National Waste Management Plan for a Circular Economy* is currently in preparation and this will replace the existing Regional Waste Management Plans.

Fingal has developed and implemented a range of policies and actions, including public education and awareness initiatives to promote circular economy waste management principles. Fingal continues to support regional initiatives including the Ballymun Rediscovery Centre, which is the National Centre for the Circular Economy bringing together the skills and expertise of artists, scientists, designers and craftspeople united in a common purpose of sustainability.

The overall vision of the EMRWMP is to rethink the approach taken towards managing waste so that it is now seen as a valuable material. In recent years, there has been a significant move away from landfill. In Fingal, Balleally and Dunsink landfills have been closed for a number of years and there are no landfill sites remaining in the County. Gas is now being collected at both Balleally and Dunsink and is being used to generate electricity for the national grid. Dunsink's proximity to Dublin City now provides significant opportunities for other uses to be considered.

Fingal will continue to promote more sustainable and localized approaches to litter and waste



management and continues to manage a network of bring centres together with civic amenity sites and bottle banks for the recycling of a range of household and commercial waste streams outside of current private kerbside collection systems. There are many Bring Banks facilities in Fingal which are open 24 hours a day and glass, cans and textiles can be recycled at them.

Fingal currently operate two recycling centres – Coolmine Recycling Centre, Dublin 15 and Estuary Recycling Centre, Swords. The Recycling Centres accept a full range of recyclable materials, bulky waste, waste electrical and electronic equipment, household hazardous waste, paint tins, etc. Fingal will continue to identify suitable sites for bring banks to ensure that developing settlements have ease of access to such facilities, subject to funding and resources available, although it is acknowledged that there can be difficulties identifying suitable additional sites.

Fingal's Litter Management Plan (2019) sets out our objectives for preventing and managing litter in Fingal, and our implementation plan to meet those objectives. The Plan is action-based and focuses on the prevention, enforcement and management of litter, with the objective of a consistently cleaner environment for the citizens of Fingal.

A key component of Fingal's waste management policy is the development and delivery of a comprehensive education and awareness campaign and Fingal County Council now employs an Environmental Educational Officer to promote Environmental Awareness Programmes within the County.



Fingal's Gum Litter Taskforce – Gum Litter Awareness Campaign

Policy IUP20 – Implementation Of Existing Waste Management Policy

Support the implementation of existing waste management policy and promote education and awareness on all issues associated with waste management, both at industry and community level, including the promotion of waste reduction by encouraging reuse, recycling and recovery of waste. Fingal County Council will continue to promote and support the objectives of the *Eastern and Midlands Region Waste Management Plan 2015–2021*, or such plans as may be updated.

Policy IUP21 – Environmental Policy, Legislation and Guidance

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

Policy IUP22 – Transition From A Waste Economy Towards A Green Circular Economy

Support the principles of transition from a waste economy towards a green circular economy and implement good waste management and best practices to enable Fingal to become self-sufficient in terms of resource and waste management and to enhance employment and increase the value recovery and recirculation of resources.

Policy IUP23 – Segregated Public Waste Bins and Compactor Bins

Promote a countywide system of segregated public waste bins and segregated compactor bins.

Objective IUO28 – Eastern Midlands Region Waste Management Plan

Implement the provisions of the *Eastern Midlands Region Waste Management Plan 2015–2021* or any subsequent Waste Management Plan applicable within the lifetime of the Development Plan. All prospective developments in the County will be expected to take account of the provisions of the Regional Waste Management Plan and adhere to the requirements of that Plan.

Objective IUO29 – Sustainable Waste Recovery And Disposal

Provide for, promote and facilitate high quality sustainable waste recovery and disposal infrastructure/technology in keeping with the EU waste hierarchy, national legislation and regional waste management policy to adequately cater for Fingal's growing population.

Objective IUO30 – Hazardous Waste

Adhere to the recommendations of the *National Hazardous Waste Management Plan 2014–2020* and any subsequent plan, and to co-operate with the EPA and other agencies in the planning, organisation and supervision of the disposal of hazardous waste streams, including hazardous waste identified during construction and demolition projects. To continue to promote the use of clean technology and minimisation of hazardous waste production in all development within the County.

Policy IUP24 – Recycling / Re-Use

Promote and encourage the establishment of re-use, recycling and repair activities to prevent and minimise waste generation and disposal, in accordance with the Eastern Midlands Region Waste Management Plan 2015–2021 (or any subsequent plan).

Policy IUP25 – Litter Management

Support the implementation of the *Fingal Litter Management Plan 2019* and any subsequent plans through enforcement of the litter bye-laws, street cleaning and continued roll out of education and awareness campaigns.

Objective IUO31 – Network Of Bring Infrastructure

Provide for and maintain the network of bring infrastructure within the County (i.e recycling centres, civic amenity facilities, bring banks) to facilitate the recycling and recovery of hazardous and non-hazardous municipal wastes and ensure the provision of adequately sized public recycling facilities in accessible locations throughout the County.

Objective IUO32 – Bring Bank Facilities

Seek to identify suitable sites for new bring bank facilities to ensure that developing settlements have ease of access to such facilities over the Plan period, subject to funding and resources available.

Objective IUO33 – Home Composting

Continue to promote home composting and explore the potential for composting in rural areas and promote the development of composting (digestor) plants for organic solid waste at appropriate locations within the County. Continue to promote developments to manage food waste in accordance with the requirements of the Waste Management (Food Waste) Regulations.

Objective IUO34 – Waste Management in New Developments

Require the provision of appropriate, well designed, accessible space to support the storage, separation and collection of as many waste and recycling streams as possible in all new commercial and residential developments within the County. See also Chapter 14, Development Management Standards (Section 14.20.12: Waste Management)

Objective IUO35 – Education and Awareness

Continue to raise environmental awareness of waste prevention and minimisation and reduction in illegal dumping through the continuation of Council based initiatives, with particular emphasis placed on the involvement of local schools, community organisations, individual households and businesses.

Objective IUO36 – Partnership Approach

Continue to develop the Council's partnership approach with the Tidy Towns Associations, community groups, farming organisations, trade unions, the business community, the local media, sporting organisations, tourism bodies and Gardaí in the support and fostering of antilitter initiatives within the County.

11.6.1 Control of Major Accident Hazards Directive (Seveso Directive)

Contaminated land is generally considered to be lands where there are substances which could cause significant harm and endanger human health. The *SEVESO III Directive* (2012/18/EU) requires that the objectives of preventing major accidents and limiting their consequences should be taken into account in land-use policy. This Directive was transposed into Irish legislation through *S.I. No. 209 of 2015 Chemicals Act Control of Major Accident Hazards (COMAH) Regulations 2015*

COMAH establishments, are defined as locations (typically industrial) where significant quantities of dangerous substances are stored and are categorised as Upper Tier or Lower Tier by the type and the quantity of hazardous substances that they store. Fingal has several sites (both Upper Tier and Lower Tier Establishments) and the Health & Safety Authority (HSA) provides advice, where appropriate, in respect of planning applications within a certain distance of the perimeter of these sites. Seveso Site Consultation Distances are specified in the *Planning & Development Regulations, 2001 (Amended)* and vary depending on the nature of activity at the site. Such technical advice will be taken into account in the consideration of applications for planning permission.

See also Chapter 14, Development Management Standards (Section 14.20.21: Major Accidents – Seveso Sites)

Policy IUP26 – COMAH Establishments/ SEVESO

Continue to have regard to the provisions of the *SEVESO III Directive* (2012/18/EU) relating to the control of major accident hazards involving dangerous substances and its objectives to prevent major accidents and limit the consequences of such accidents. Fingal will continue to have regard to the provisions of the Directive and recommendations of the HSA in the assessment of all planning applications located on, or impacted by, COMAH establishments in accordance with *Guidance on Technical Land-use Planning Advice: for Planning Authorities and Operators of COMAH establishments (2021)*.

Objective IUO37 – Restrictions on Development in proximity of a Seveso Site

Have regard to the provision of the “Major Accident Directive” (Seveso III) (European Council Directive 2012/18/EU) and impose restrictions in consultation with the HSA, on developments abutting or within proximity of a Seveso site. The extent of restrictions on development will be dependent on the type of risk present and the quantity and form of the dangerous substance present or likely to be present.

Objective IUO38 – Location of New Seveso Development

Permit new Seveso development only in low-risk locations away from vulnerable residential, retail and commercial development.

Objective IUO39 – Extensions to Seveso Sites

Prohibit new extensions to long-established Seveso sites where they are a non-conforming use and where they pose an unacceptable accident risk to the public.

Objective IUO40 – Adjacent Uses – Seveso Sites

In areas where Seveso sites exist in appropriate locations with low population densities, ensure that proposed uses in adjacent sites do not compromise the potential for expansion of the existing Seveso use and in particular the exclusion of developments with the potential to attract large numbers of the public.

Objective IUO41 – Storage of Seveso Substances

Attach to any grant of permission for new warehouses or similar industrial buildings, a condition to exclude use/storage of SEVESO substances (or require a separate planning permission for it).

Objective IUO42 – HSA Consultation Distances for new Seveso Sites

Have regard to the advice of the Health and Safety Authority when proposals for new Seveso sites are considered and for all planning applications within the consultation distances stated in Table 14.27: List of Seveso / COMAH Sites (Chapter 14, Development Management Standards).

Objective IUO43 – Seveso Risk Assessment

Require developers to submit a detailed consequence and risk assessment with all Environmental Impact Statements and/or legislative licence applications for all Seveso sites.

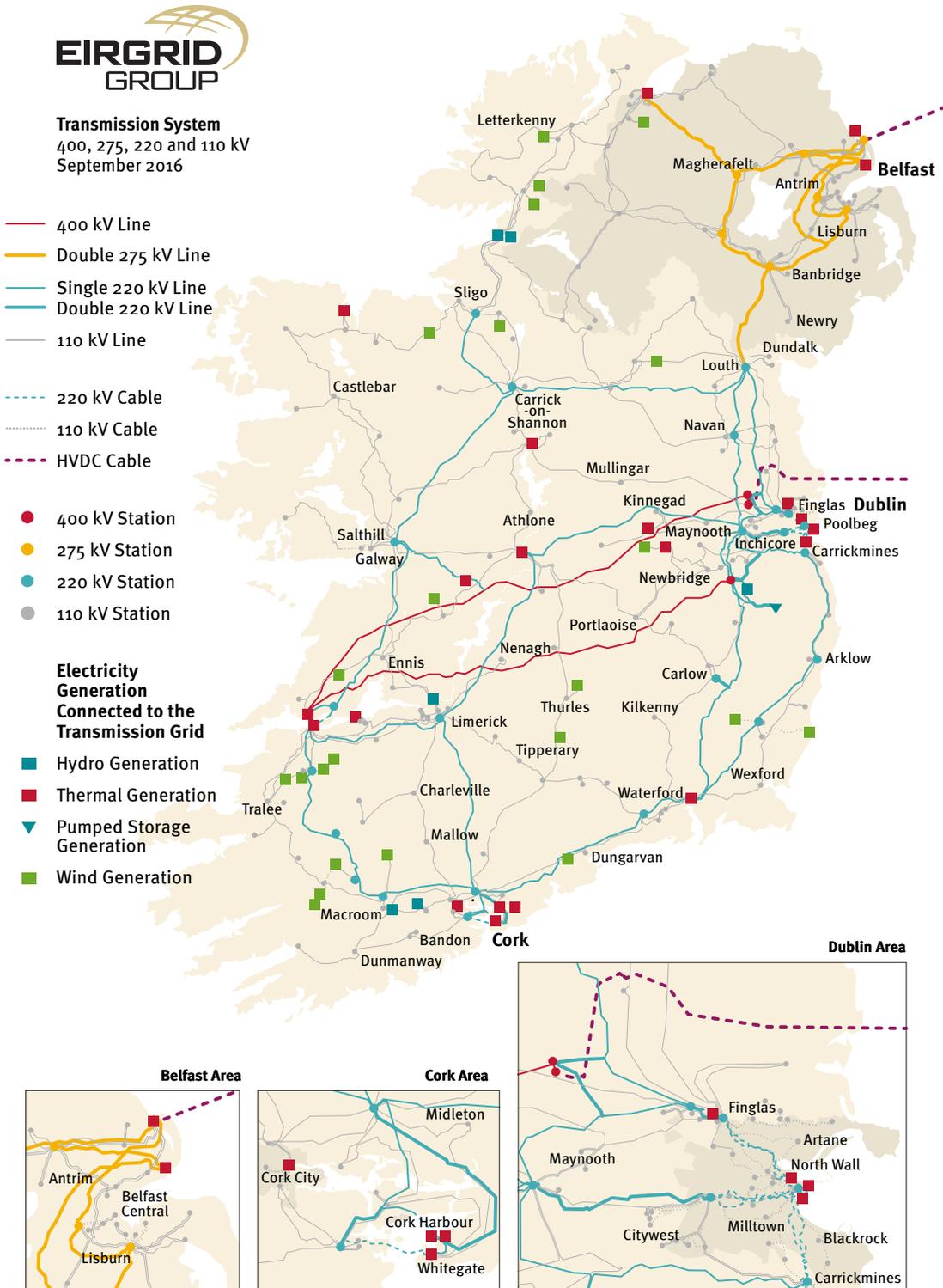
11.7 Energy Policies and Objectives

A secure and resilient supply of energy is critical to a well-functioning region, and is essential for heating, cooling, and to fuel transport, power industry, and generate electricity. With projected increases in population and economic growth, the demand for energy is set to increase in the coming years. At present, we have a significantly higher carbon footprint than the EU average, in part due to higher transport and energy demand, mostly based on fossil fuels, which has worked against achieving agreed climate action targets.

Ireland needs to exploit renewable energy to reduce national dependency on imported fuels for energy provision and to ensure security of supply which will benefit the economy as well as the environment. Along with transport demand, higher densities and shorter travel distances will also reduce energy demand and use. Multi-storey and terraced buildings in close proximity require less energy and make renewables-based systems of energy distribution such as district heating, more feasible.

In planning Ireland's future energy landscape and in transitioning to a low carbon economy, the ability to diversify and adapt to new energy technologies is essential. Over the period to 2040, it is likely that technological advances will accelerate the commercial application, development and deployment of a marine renewable energy sector including offshore floating wind farms, tidal turbine devices and wave energy converters. Fingal will promote more energy efficient development through the location of housing and employment along public transport corridors, where people can choose to use less energy intensive public transport, rather than being dependent on the car. CHP and District Heating systems will be supported and encouraged, where possible.

Figure 11.1: The All-Island Electricity Transmission Network (ETS, April 2018)



ESB Networks and EirGrid are responsible for the electricity distribution and transmission system in Ireland. Gas Networks Ireland is responsible for supply, transmission and distribution of natural gas. In an effort to reduce our carbon footprint, it is now necessary to diversify our energy production systems away from fossil fuels and towards green energy such as wind, wave, solar and biomass. Smart energy systems and the electrification of transport fleets will require the progressive and strategic development of a different form of energy grid to reduce investment needs. The maintenance and adequate provision of energy networks is a critical part of securing the region's future.

Fingal will continue to support energy utility providers in their efforts to reinforce and strengthen existing utility infrastructure and transmission / distribution networks and will support new infrastructure projects and technologies with particular emphasis on renewable, alternative, and decentralised energy sources, and those which are less carbon intensive in line with the *Electricity and Gas Networks Sector Climate Change Adaptation Plan* (2019). We will continue to support the development of a safe, secure, and reliable supply of electricity and to support the development of enhanced electricity networks and facilitate new transmission infrastructure projects including those under *EirGrid's Grid Development Strategy*, to service the existing and future needs of Fingal and the wider Eastern Region and to strengthen all-island energy infrastructure and interconnection capacity.

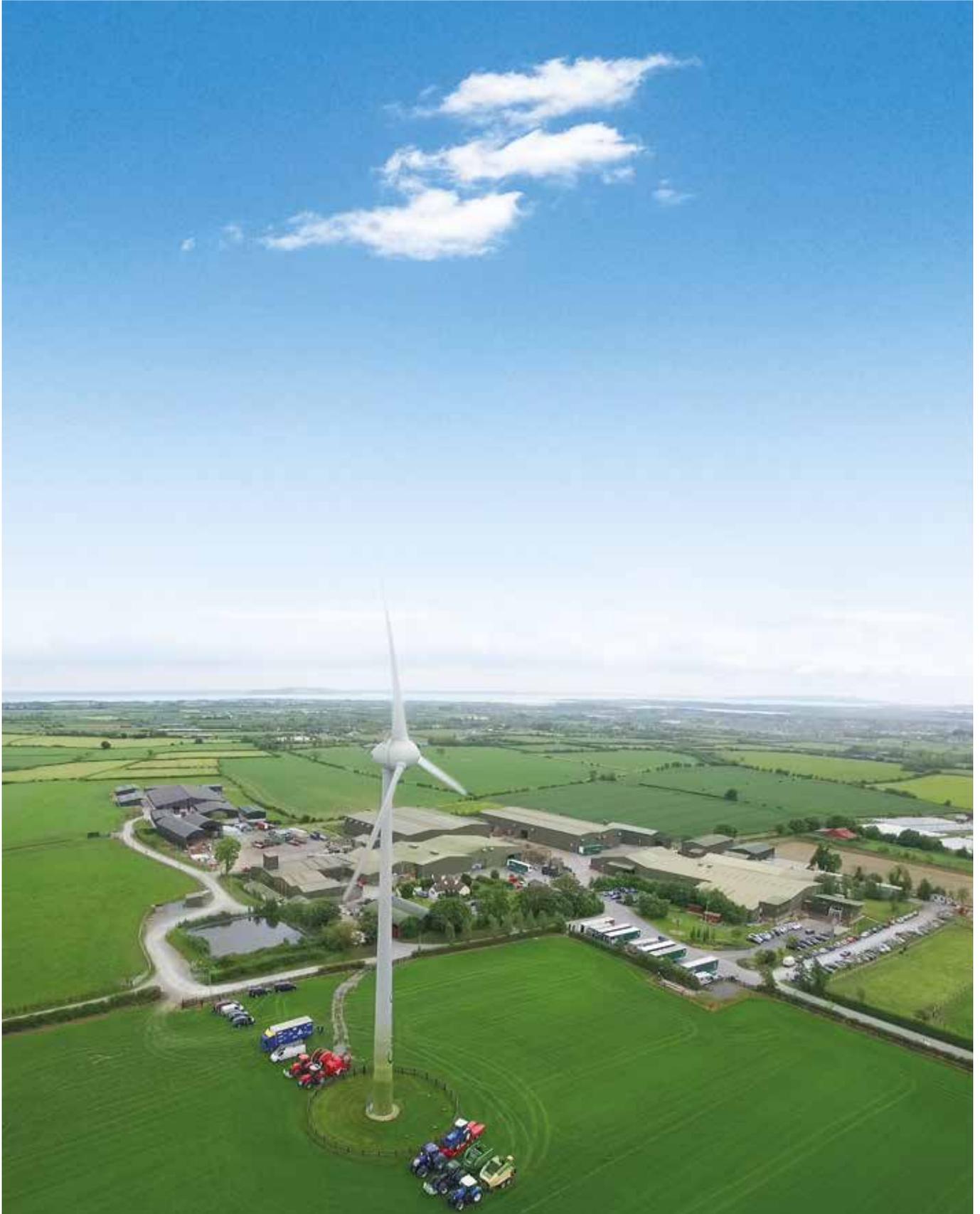
The linkage of renewable energy proposals to the electricity and gas transmission grid will be actively supported by the Council and the development of onshore or coastal enabling infrastructure for offshore renewable energy installations will also be supported in appropriate locations in accordance with the *National Marine Planning Framework* (2021).

Fingal's Development Plan policy objectives on Energy and Climate Change will reflect strategic national and EU policy.

11.7.1 Renewable Energy

Our Development Plan policies encourage the sustainable development of the renewable energy sector in the County (including bioenergy, wind, wave, solar etc) due to the positive contribution it can make to the economy and to the achievement of renewable energy targets (see also Chapter 5 Climate Action). Ireland's territorial waters present major opportunities in the blue economy and offshore renewable energy sectors, which would support our transition to a zero-carbon economy. Under the *Offshore Renewable Energy Development Plan* (OREDPP), Ireland has set ambitious plans for renewable energy and offshore renewable energy resource development. Over the period to 2040, it is likely that technological advances will accelerate the commercial application, development and deployment of a marine renewable energy sector including offshore floating wind farms, tidal turbine devices and wave energy converters.

The development of onshore and offshore renewable energy is critically dependent on the development of enabling infrastructure including grid facilities to bring the energy ashore and connect to major sources of energy demand. It is likely, with the withdrawal of the UK from the EU (Brexit), that in transport and energy infrastructure terms for example, Ireland's direct linkages with other EU countries by both air and sea and subsea energy connections may become significantly more important, given their advantages in terms of resilience and ease of movement across internal borders. In Fingal, energy generation and energy



related activity is likely to change significantly over the coming years as the move to a low carbon economy increases and climate change, energy and renewable energy objectives in the Development Plan are updated accordingly.

Fingal County Council will continue to work in partnership with existing service providers to facilitate required enhancement and upgrading of existing infrastructure and networks and support the safeguarding of strategic energy corridors from encroachment by other development that could compromise the delivery of energy networks

Fingal is also currently supporting the implementation of the “*Strategy for Renewable Energy 2012-2020*” (Department of the Environment, Climate and Communications) and the related *National Renewable Energy Action Plan (NREAP)* and *National Energy Efficiency Action Plan (NEEAP)* through encouraging the use of renewable energy as part of the Development Management process as well as investigating and promoting District Heating as an energy source for the County.

Policy IUP27 – Energy Networks and ICT Infrastructure

Facilitate and promote the development of energy networks and ICT infrastructure where necessary to facilitate sustainable growth and economic development and support the provision of critical energy utilities and the transition to alternative, renewable, decarbonised, and decentralised energy sources, technologies, and infrastructure.

Policy IUP28 – Promote Energy Efficient Development

Promote more energy efficient development through the location of housing and employment along public transport corridors, where people can choose to use less energy intensive public transport, rather than being dependent on the car.

Policy IUP29 – Enhancement And Upgrading Of Existing Infrastructure And Networks

Work in partnership with existing service providers to facilitate required enhancement and upgrading of existing infrastructure and networks and support the development of new energy systems and transmission grids, which will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave, and solar energy.

Policy IUP30 – Enhancement and Upgrading Of Existing Infrastructure And Networks

Support *EirGrid's Grid Development Strategy – Your Grid, Your Tomorrow (2017)*, *Implementation Plan 2017-2022* and *Transmission Development Plan (TDP) 2016* and any subsequent plans prepared during the lifetime of this Plan, to provide for the safe, secure, and reliable supply of electricity.

Policy IUP31 – Renewable Energy

Continue to develop and implement climate action and energy related initiatives in Fingal and continue to support the recording and monitoring of renewable energy potential in Fingal in partnership with other stakeholders including the East Midlands Regional Assembly EMRA, the Dublin Energy Agency (Codema) and the Climate Action Regional Office (CARO).

Policy IUP32 – District Heating Systems and CCHP

Promote the use of district heating systems at appropriate locations in new residential and commercial developments where such development does not have a negative impact on the surrounding environment, landscape, biodiversity or local amenities and support complementary technologies including combined cooling, heat and power (CCHP), large scale heat pumps, and renewable energy opportunities, including geothermal energy, energy from waste, biomass and bio-gas.

Objective IUO44 – Energy Utilities

Support the development of enhanced electricity and gas supplies, and associated transmission and distribution networks, to serve the existing and future needs of the County, and to facilitate new transmission infrastructure projects and technologies.

Objective IUO45 – Undergrounding of Utility Infrastructure

Require that the location of local utility services such as electricity, telephone and television cables be located underground wherever possible, and to promote the undergrounding of existing overhead cables and associated equipment, where possible, in the interests of visual amenity and improved public realm.

Objective IUO46 – Energy Efficiency of Buildings

Encourage the adaptability of buildings over time and seek to improve the energy efficiency of new and existing building stock including the retro fitting of energy efficient measures and promote the use of energy efficiency and conservation in the design and development of all new buildings in the County, in accordance with relevant building regulations, national policy and guidance and the targets of Fingal's Climate Change Action Plan.

11.7.2 Smart Grids and Smart Cities

Smart Grids and Smart Cities involve the application of advanced electrical engineering and service technologies, facilitated by ICT and accompanying solutions to more effectively and efficiently manage complex infrastructure systems. They typically use a layer of technology, which can be embedded in the design of new infrastructure or applied to existing infrastructure, harnessing and applying real time data to create more interconnected and integrated systems. This provides higher quality and higher efficiency services to the citizen. Among the projected benefits are improved operational reliability, reduced resource usage and costs, improved environmental quality (including enabling of a low carbon society), improved governance and new enterprise and job creation opportunities.

Smart Grids and Smart Cities can significantly improve the efficiency and quality of complex systems such as electricity, water, waste, energy and transport services, thereby reducing their costs while contributing to the “green economy”. Ireland's policy, research, enterprise, utility and local authority community is already engaged in this arena. Fingal's Development Plan will support the roll-out of the National Smart Grid Plan enabling new connections, grid balancing, energy management and micro grid development.

Policy IUP33 – Smart Grids and Smart Cities

Smart Grids and Smart Cities development will be supported, as these significantly improve the efficiency and quality of complex systems such as electricity, water, waste and transport services.

Objective IUO47 – Smart Grids and Smart Cities Action Plan

Support the roll-out of the *Smart Grids and Smart Cities Action Plan* (2013) in order to enable new connections, grid balancing, energy management and micro grid development.

11.8 Information and Communications Technology (ICT) Policies and Objectives

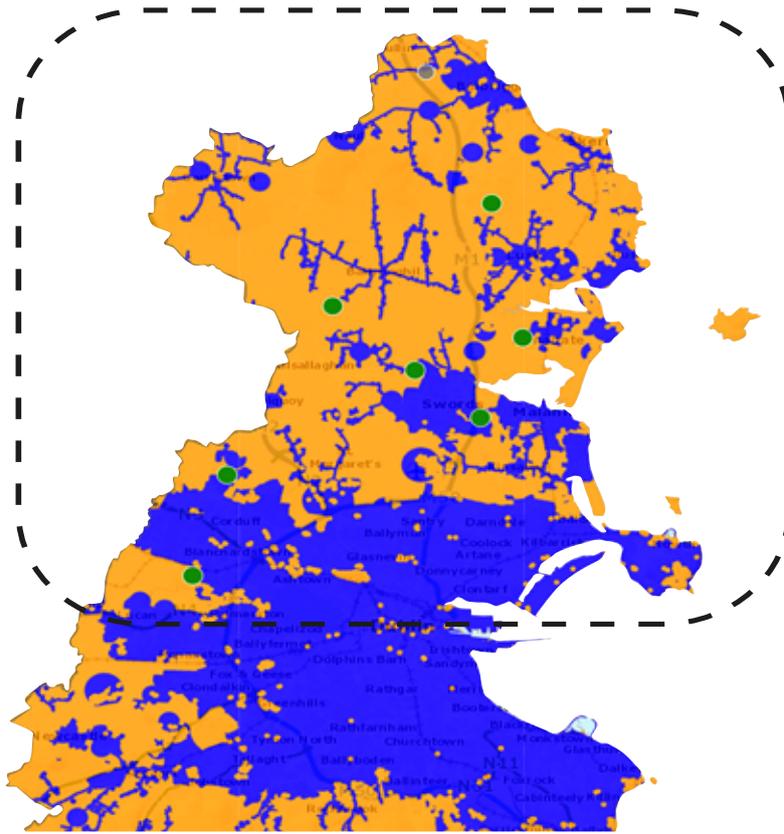
Fingal County Council is committed to the continued development and improvement of the County's digital infrastructure and services. This Plan supports the provisions contained within the *Fingal Digital Strategy 2020 – 2023* which provides a wider strategy with respect to the development of information and communication technologies within the county. The Council therefore will support the provision of ICT infrastructure such as broadband, telecommunication infrastructure, mobile phone coverage and future technologies which may arise which will assist in the economic development of the county.

11.8.1 National Broadband Plan

The widespread availability of a high-quality ICT network within the County will be critical to the development of Fingal's economy whilst also supporting social development. The provision of a good quality high speed broadband and telecommunications service is essential for supporting and attracting business and investment. It is also important for social and domestic purposes.

Having regard to telecoms infrastructure, Fingal is better served than its more rural neighboring counties, but it still experiences a rural-urban divide for high-speed broadband services which has left rural communities disadvantaged for their living and working requirements. Latest figures available from the Department of the Environment, Climate and Communications (DECC) show that there are 13,429 premises in Co. Dublin without access to high-speed broadband. At least 7,500 of these premises are in the Fingal area, representing just under 8% of households. Government will invest €53m in building NBP in Co. Dublin.

Engagement with local citizens and business have revealed that pockets or blackspots of poor connectivity exist within the blue area of the National Broadband Plan map. Fingal County Council is working with National Broadband Ireland to facilitate the delivery of high-speed broadband for the 8% of premises in Fingal where State intervention is required.



AMBER areas – the target areas for the State intervention of National Broadband Plan
BLUE areas – Where commercial operators are delivering or have indicated plans to deliver high speed broadband services.

11.8.2 Fingal's Digital Strategy 2020–2023

Fingal County Council have developed a Digital Strategy to encourage and support communities and businesses to reap the full rewards of a digitally enabled society. Fingal's Digital Strategy is a three-year plan that sets out what the Council wants to achieve and outlines strategic goals and objectives to make the most of digital opportunities for Fingal. It is a living document that will change overtime and adapt with an ever-changing digital society. This Digital Strategy supports both national and EU Digital Programmes, the roll-out of the National Broadband Plan, and other local plans and strategies including the *Fingal Libraries Development Plan 2018–2023*, *Fingal Local Economic and Community Plan (LECP) 2016–2020*, *Climate Change Action Plan 2019–2024*, *Smart Dublin Strategy*, *Fingal Skills Strategy* and the *United Nations Sustainable Development Goals*.

Fingal is committed to the continued development and improvement of the County's digital infrastructure and services and access to free public Wi-Fi in our major town centres and villages will be a major asset to our visitors, businesses and residents. The provision of free public Wi-Fi forms part of the Council's Digital Strategy and this service will strengthen Fingal's reputation as a forward thinking and digitally inclusive urban and rural landscape, which strongly promotes access to on-line services and information across the County.

Fingal is also committed to assisting in the rollout of the National Broadband Plan and the rollout of community Wi-Fi Broadband Connection Points being delivered by The Department of Rural and Community Development.

We will continue to promote digital inclusion in Fingal by supporting strategies that encourage wider availability of broadband infrastructure and will support the rollout of the National Broadband Plan and will avail of EU funding to promote digital inclusivity for all citizens.

11.8.3 SMART Districts

In June 2020, Balbriggan was chosen as Ireland's first town to be named as a "Smart District" in a move that will put it at the cutting edge of smart projects to improve services, create jobs and build a better community. Smart Districts (under the Smart Dublin programme), are strategically selected geographical locations where targeted smart projects are piloted and implemented. The core focus of the Balbriggan Smart District will be to enhance community life, support economic opportunities and drive innovation through a number of smart district projects.

Fingal County Council will continue to seek opportunities to develop further Smart Districts and pilot smart places projects to scale regionally.

11.8.4 Telecommunications

The provision of telecommunications information is important in terms of the economic development of the County. To ensure appropriate telecommunications infrastructure is provided within the County the Council will have regard to the Guidelines issued by the Department of the Environment, Heritage and Local Government, *"Planning Guidelines for Telecommunications Antennae and Support Structures" (1996) and Circular Letter PL 07/12*. The assessment of individual proposals will be governed by the Guidelines and the controls scheduled in the Development Management Standards chapter of this plan.

11.8.5 Ducting and Access to Fingal County Council Assets

The Council's assets and ducting network have an important role to play in ensuring that our urban centres are digitally connected through the provision of high-quality digital connectivity infrastructure. The EECC requires that Local Authorities facilitate requests for access to its assets in a timely manner to support the development of telecoms infrastructure and to future-proof the urban environment. The Council are cognisant of the need to balance the objective to provide effective telecoms infrastructure with objectives to protect streetscape heritage and reduce on-street clutter and are committed to working proactively with the telecommunication industry during the development and deployment phase of telecommunications infrastructure to achieve this.

Policy IUP34 – Provision of Telecommunications / Digital Connectivity Infrastructure

Facilitate the coordinated provision of telecommunications / digital connectivity infrastructure at appropriate locations throughout the County and extension of telecommunications infrastructure including broadband connectivity as a means of improving economic competitiveness and enabling more flexible work practices.

Policy IUP35 – Fingal Digital Strategy

Develop and support the implementation of the *Fingal Digital Strategy 2020–23*, to encourage and support communities and businesses to reap the full rewards of a digitally enabled society, including the completed rollout of public Wi-Fi hotspots as set out in the Fingal Public Wi-Fi Roadmap and as part of the WIFI4EU scheme.

Policy IUP36 – Open Access Connectivity Arrangements

Consider provision of open access connectivity arrangements within new developments to enable service provider competition and consumer choice in line with the requirements of the *European Electronic Communications Code* (2018).

Policy IUP37 – National Broadband Plan

Support the rollout of high-quality broadband throughout the County and facilitate the delivery of the National Broadband Plan and International fibre communications links, including full interconnection between the fibre networks in Northern Ireland and the Republic of Ireland.

Objective IUO48 – High-quality ICT Network and Appropriate Telecommunications Infrastructure

Promote and facilitate the provision of a high-quality ICT network and appropriate telecommunications infrastructure in accordance with the *Fingal Digital Strategy 2020–23* (and any subsequent plan), and to support broadband connectivity and other innovative and advancing technologies within the County, whilst protecting the amenities of urban and rural areas.

Objective IUO49 – Digital Inclusion

Promote digital inclusion and improve digital equality. Facilitate access to free high-speed connectivity in public buildings and facilitate the rollout of Community Broadband Connection Points (BCPS).

Objective IUO50 – Smart Districts/Smart Places

Support the development of Smart Districts/Smart Places to enhance socio-economic development.

Objective IUO51 – Digital Hubs and Co-working Spaces

Facilitate the development of digital hubs and co-working spaces at appropriate locations.

Objective IUO52 – Telecommunications Infrastructure

Ensure that applications made in relation to the provision of overground telecommunications infrastructure, including planning applications and Section 254 licence applications, take into consideration and demonstrate compliance with the *“Guidance on the Potential Location of Overground Telecommunications Infrastructure on Public Roads”* (2015).

Objective IUO53 – High-quality Design of Telecommunications Infrastructure

Ensure a high-quality design of masts, towers, antennae and other such telecommunications infrastructure in the interests of visual amenity and the protection of sensitive landscapes in the County.

Objective IUO54 – Sharing And Co-location Of Digital Connectivity Infrastructure

Support the appropriate use of existing assets (i.e. lighting, street furniture etc) for the deployment of telecoms equipment and to encourage the sharing and co-location of digital connectivity infrastructure in the interests of visual amenity and protection of the built heritage.

Objective IUO55 – Ducting

Support greater coordination in the delivery of telecoms/ digital connectivity infrastructure and use of underground ducting asset space.

Objective IUO56 – Open Access Connectivity Arrangements

Require all new developments to provide open access connectivity arrangements directly to the individual premises to enable service provider competition and consumer choice.

11.9 Air, Noise, Light Policies and Objectives

While the overall quality of our environment is good, this masks some of the threats we now face. Key national environmental challenges include the need to accelerate action on climate change, health risks to drinking water, treating urban wastewater, protecting important and vulnerable habitats as well as diminishing wild countryside and dealing with air quality problems in urban areas.

Noise is unwanted sound but is an inevitable consequence of everyday life, arising from environmental noise (created by human activity outdoors such as transport, construction, and industry), with different tolerance levels varying from person to person. It becomes a problem when it occurs in the incorrect place or at the incorrect time or on a frequent or recurring basis. As we seek to promote more compact and efficient forms of development within our settlements, it is important to more proactively manage noise.

Fingal has recently prepared a *Noise Action Plan 2019–23* for Dublin Airport and a separate *Noise Action Plan for the County of Fingal*. Our Development Plan policies have been reviewed and updated to include the policies and actions outlined in these Noise Action Plans. Noise associated with Dublin Airport is addressed in Chapter 8: Dublin Airport (Section 8.5.7: Ensuring Environmental Protection and Sustainability).

Artificial lighting has its place in our world and is invaluable to businesses, homes, roads and recreation. However, when used inappropriately or excessively, artificial lighting can cause light pollution. This has adverse effects on the environment, our health, biodiversity, and our climate (through energy waste). Light levels in Ireland have increased significantly in recent years.

11.9.1 Air

The need to ensure the highest standards of air quality is recognised by Fingal County Council, with the EPA being the competent authority for the management of the national ambient air quality network. EPA studies show that air quality in Ireland is generally good, however there are localised issues in the Dublin area due to pollution from transport and the burning of solid fuel. The Dublin Area Local Authorities have prepared an Air Quality Management Plan for improvement in levels of nitrogen dioxide in ambient air quality for submission to the EPA.

Under the Clean Air for Europe Directive, EU member states must designate "Zones" for the purpose of managing air quality. For Ireland, four zones were defined in the *Air Quality Standards Regulations (2011)*. The EPA's ambient air quality monitoring network provides real time air quality data for urban areas within the Eastern Region. There are a number of air monitoring stations in Fingal, including stations at Swords, Ballymun, Finglas, Blanchardstown and Balbriggan and up to date information on air quality for the Dublin Area – which includes the four Dublin Local Authorities – together with the Air Quality Index for Health is available at <https://www.epa.ie/environment-and-you/air/>

The Department of the Environment, Climate and Communications is preparing a National Clean Air Strategy and Fingal is committed to supporting its implementation, once adopted. This will require Local Authorities to play a role in local data collection to support the EPA's air monitoring network and facilitate air quality alerts and pollen counts. The Council will continue to engage with the EPA and other relevant Departments to promote the monitoring and improvement of air quality in Fingal.

Policy IUP38 – EPA and Air Quality

Continue to work proactively with the EPA to monitor and improve air quality in Fingal.

Objective IUO57 – Air Quality Monitoring

Monitor, pro-actively manage and improve air quality in the County through integrated land use and spatial planning measures to avoid, mitigate and minimise unacceptable levels of air pollution in accordance with national and EU policy Directives on air quality and, where appropriate, promote compliance with established targets.

Objective IUO58 – Air Quality Monitoring Network

Continue to work with the Dublin Local Authorities and relevant agencies in the collection of local air quality data through the EPA's air quality monitoring network, to maintain good air quality in the County.

Objective IUO59 – Dublin Regional Air Quality Management Plan

Implement the recommendations of the *Dublin Regional Air Quality Management Plan* (and any subsequent Plan) and to implement the relevant spatial planning recommendations and actions of the *Dublin Agglomeration Environmental Noise Action Plan 2018–2023* or any superseding action plan.

11.9.2 Noise

The RSES highlights that the WHO has identified that noise is the second major environmental issue in Europe causing health problems after air quality and the Strategy outlines that there should be proactive management of noise, where it is likely to have a significant adverse impact on health and the environment.

The *EU Environmental Noise Directive* requires that Local Authorities prepare strategic noise maps and action plans, setting out mitigation measures to reduce the harmful effects, including long term exposure to environmental noise from roads, railways and airport traffic and the protection of “quiet areas”, which are shown to bring significant health and wellbeing benefits. Fingal County Council has prepared a *Noise Action*

Plan for Dublin Airport (See Chapter 8: Dublin Airport (Section 8.5.7: Ensuring Environmental Protection and Sustainability) and a separate *Noise Action Plan for the County of Fingal* (to inform the *Dublin Agglomeration Environmental Noise Action Plan 2018 – 2023*), in compliance with requirements under the EU Environmental Noise Directive and the Environment Noise Regulations. The Noise Action Plans and Noise Maps are required to be reviewed every 5 years. The key objective of the Noise Action Plans is to avoid, prevent and reduce where necessary on a prioritised basis the harmful effects including annoyance due to long term exposure to environmental noise.

These Plans are aimed at developing strategic policy and managing environmental noise and Fingal's Noise Action Plan identifies approaches as to how the Council will manage all environmental noise issues, whether strategic or local, regulated or unregulated. The Plans set out how the Council deals with local noise nuisances and complaints along with planning, development and traffic management issues. (The plans do not, however, cover noise in relation to health and safety in the work place, noise inside any means of transport or noise caused by military activities in military areas.). The EPA has also established an Ocean Noise Register for Ireland. The EPA is the national competent authority under the Noise Regulations.

Strategic Noise Maps identifying the most significant sources of noise exposure from road and rail have been identified under the *Environmental Noise Regulations* and are presented in the *Noise Action Plan for Fingal County 2018–2023*. These maps can be used to identify the main areas where noise may be considered relevant to planning applications associated with noise-sensitive development. Through the development management process, the Council can minimize the adverse impacts of noise pollution by controlling developments which are noise intensive and not permitting their location adjacent to more sensitive residential areas. Furthermore, where it is considered that a proposed development is likely to create disturbance due to noise, the planning authority can impose a planning condition limiting the hours of operation and level of noise generation.

The Council will take a strategic approach to managing environmental noise within its functional area and this will be undertaken through ensuring that appropriate noise assessments are carried out in respect of planning applications for residential and other noise sensitive developments within the relevant noise contours presented by the Strategic Noise Maps in the Noise Action Plan or any other noise contour maps prepared by Fingal County Council. Noise assessments should follow the principles of good acoustic design in line with “*Professional Practice Guidance on Planning & Noise: New Residential Developments*” (2017) so that development is designed to achieve acceptable internal noise levels – further detail is contained within Chapter 14 Development Management Standards, Section 14.20.17: Noise)

Policy IUP39 – Dublin Agglomeration Environmental Noise Action Plan

Support the pro-active management of noise in the County and to continue to work with the Dublin Local Authorities and relevant statutory agencies, through the implementation of measures to avoid, mitigate and minimise noise in accordance with the *Noise Action Plan for the County of Fingal 2018–2023* and the *Dublin Agglomeration Environmental Noise Action Plan 2018–2023* (and any subsequent plans).

Policy IUP40 – Working with Stakeholders

Continue to work alongside relevant stakeholders including the NTA, TII and the EPA to promote and improve safer noise protection infrastructure in line with population growth and traffic increases along all our national roads.

Objective IUO60 – Implementation of Noise Plans

Implement the relevant spatial planning recommendations and actions of the *Dublin Agglomeration Environmental Noise Action Plan 2018–2023* and the *Noise Action Plan for Dublin Airport 2019–2023* (or any subsequent plan), working in conjunction with relevant statutory agencies.

Objective IUO61 – Noise Sensitive Developments

Consider the location, design and construction of noise sensitive developments, to ensure they are protected from major noise sources, where practical, and to support and facilitate the monitoring and enforcement by Fingal's Environmental Health Department of noise reduction measures in areas experiencing excess noise.

Objective IUO62 – Noise Exposure Maps

Developments for noise sensitive uses shall have regard to the noise exposure maps contained within the *Fingal Noise Action Plan 2018 – 2023* or any supplementary mapping prepared by Fingal County Council, and developers shall be required to produce a noise impact assessment and mitigation plans, where necessary, for any new noise sensitive development within these areas.

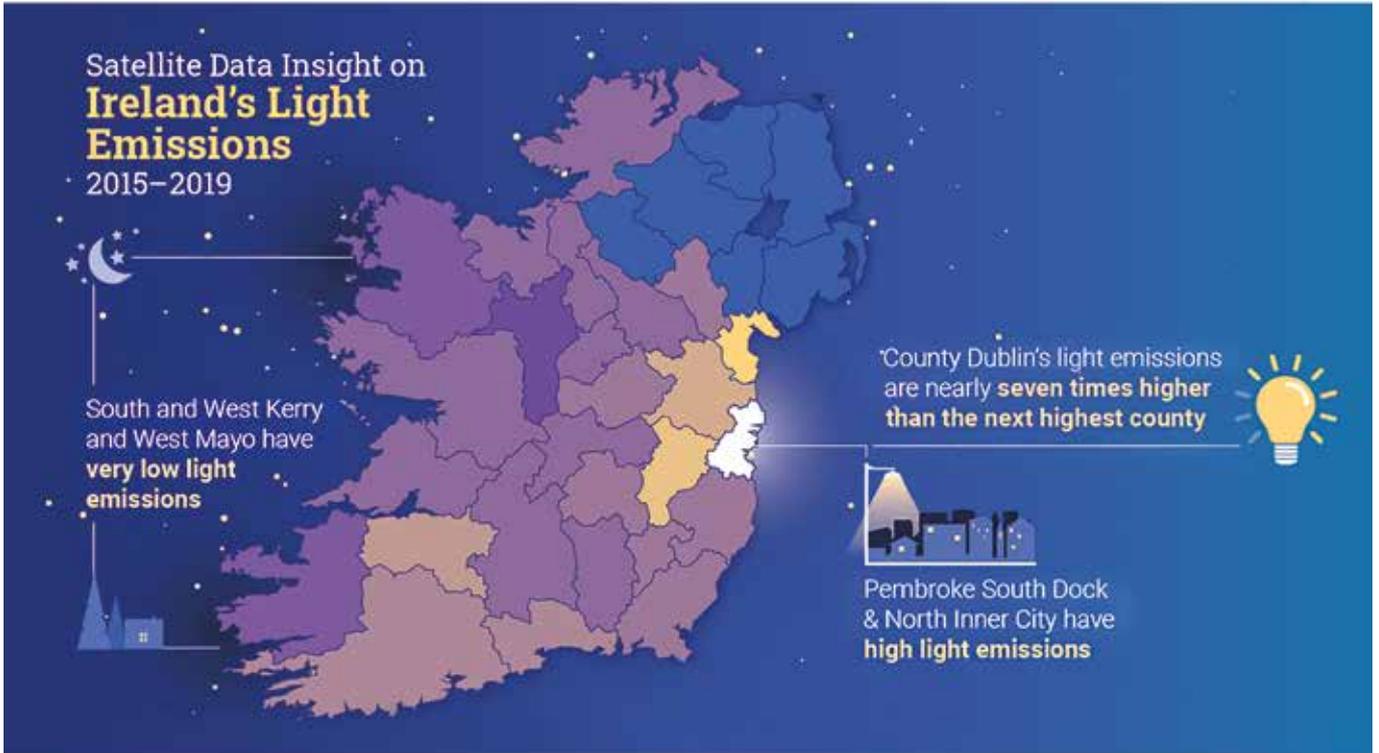
11.9.3 Light

Light pollution is increasing in the Fingal and the Eastern Region due to increasing levels of development. Light pollution can refer to skyglow (the brightening of the night sky over urban areas), light trespass (where light falls where it is not intended) or light glare (where light is excessively bright). At present there are no Irish Guidelines in relation to the control of light pollution. Adequate lighting is essential for a safe and secure environment. However, light spillage from excessive or poorly designed lighting is increasingly recognised as a potential nuisance to surrounding properties and a threat to light-sensitive wildlife. While Fingal has large areas of rural and coastal character, including river corridors, which are particularly sensitive to light pollution.

Artificial light is important for businesses, homes, roads and recreational purposes, however the inappropriate or excessive use of artificial light – especially blue light – can be harmful to wildlife, particularly nocturnal species and on human health due to sleep disruption. Where proposals for new lighting require planning consent, the Council will ensure that they are carefully and sensitively designed.

According to a recent study by the CSO (*"How Dark is your Sky?" Estimating Artificial Light in Ireland from Satellite Imagery, 2015–2019*), Dublin has artificial light emissions close to seven times higher than any other County. This is based on a study of satellite data over a 5 year period. Artificial Light at Night (ALAN) is a matter of increasing public interest. In recent years, concerns about excessive levels of artificial lighting have driven research and legislation in countries including France and the UK.

Estimating artificial light in Ireland from satellite imagery



Source: Dark Sky Ireland

Having regard to the predominantly rural nature of Fingal, the County is sensitive to light pollution. Sky glow can ultimately affect the tranquility associated with rural areas. Light pollution not only has an effect on humans but also can have a negative impact to biodiversity by affecting the normal diurnal patterns of plants and animals. Effects of impacts to biodiversity are apparent when birds sing or feed after dark.

In general, sports pitches and security lighting are probably the biggest cause of nuisance. Equally, unnecessary light spillage is wasted light, which in turn is wasted energy, resulting in the unnecessary release of CO₂ into the atmosphere.

Without good design, planning and policy for reducing light pollution, there is a real risk of losing these natural heritage sites across the country. This Plan includes policies to protect areas from light pollution and light spillage from flood lights.

11.9.3.1 Public Lighting in Fingal

The drive to reduce both costs and carbon production from public lighting is leading to the national adoption of more energy efficient light emitting diode (LED) lighting. Due to the longevity of LED lamps (typically 25 years), any equipment installed now will have a long-term effect, so we have a responsibility to implement the best choice in terms of lighting as well as its wider impact based on an informed balance of current evidence.

There are environmental and health impacts with high temperature LEDs containing more “blue-rich” light.

Fingal will promote the adoption of lower temperature (warmer colour) lighting, which provides the best balance of cost saving, road and personal safety through better balanced light and improved perception, as well as reducing environmental impact. Fingal will continue to have regard to best practice in public lighting.

Policy IUP41 – Light Pollution

Promote appropriate lighting installations, availing of best practice as published by the relevant authority, designed to minimise light pollution / unwanted environmental effects while maximising the light reaching the public realm

Objective IUO63 – Design of Lighting Schemes

Require that the design of lighting schemes minimises the incidence of light spillage or pollution into the surrounding environment and new schemes shall ensure that there is no unacceptable adverse impact on neighbouring development, visual amenity and biodiversity in the surrounding areas.

Objective IUO64 – Lighting: New Developments

Require that new developments are appropriately lit and that all public and external lighting in new residential and commercial developments use highly energy efficient luminaires, with the use of energy saving strategies (such as dimming in line with nationally agreed tariffs) encouraged.