

SEA ENVIRONMENTAL REPORT APPENDIX II – NON-TECHNICAL SUMMARY

FOR

VARIATION No. 1 TO THE SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2022-2028

**THIS REPORT IS AN UPDATED VERSION OF THE ORIGINAL SEA ENVIRONMENTAL REPORT
THAT WAS PLACED ON PUBLIC DISPLAY ALONGSIDE THE PROPOSED VARIATION**

for: South Dublin County Council



**Comhairle Contae South Dublin
Átha Cliath Theas County Council**

by: CAAS Ltd.



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Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report for Variation No. 1 to the South Dublin County Development Plan 2022-2028. The purpose of the Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Variation, which provides for the integration of a Local Planning Framework for Clondalkin into the County Development Plan. The Environmental Report has been prepared as part of a Strategic Environmental Assessment (SEA) process for the Variation.

What is SEA?

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a proposed plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic, social and other considerations.

Why is SEA needed? The Benefits

SEA is the planning authority's and the public's guide to what are generally the best areas for development in the Clondalkin Local Planning Framework area.

SEA enables the planning authority to direct development towards robust, well-serviced and connected areas in the Clondalkin Local Planning Framework area – thereby facilitating the general avoidance of incompatible development in the most sensitive, least well-serviced and least well-connected areas, in Clondalkin and beyond.

SEA provides greater certainty to the public and to developers. Plans, and variations to plans, are more likely to be adopted without delays or challenges and planning applications are more likely to be granted permission. Environmental mitigation is more likely to cost less.

The Variation's Local Planning Framework directs incompatible development away from the most sensitive areas in Clondalkin and focuses on directing compact, sustainable development within compatible areas. Development of these generally more robust, well-serviced and well-connected areas will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation.

Compact development can be accompanied by placemaking initiatives to enable Clondalkin to become a more desirable place to live, work and visit.

Compatible sustainable development in sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

How does the SEA work?

All of the main environmental issues in the area were assembled and considered by the team who prepared the Variation. This helped them to devise a Local Planning Framework that contributes towards the protection and management of environmental sensitivities. It also helped to identify wherever potential conflicts between the Local Planning Framework and the environment exist and enabled these conflicts to be mitigated.

The SEA was scoped in consultation with designated environmental authorities.

What is included in the Environmental Report that accompanies the Variation?

- A description of the environment and the key environmental issues;
- A description and assessment of alternatives for the Variation;
- An assessment of the provisions of the Variation; and,
- Mitigation measures, which will avoid/reduce the environmental effects of implementing the Variation and will contribute towards compliance with important environmental protection legislation.

Difficulties Encountered during the SEA process

No significant difficulties have been encountered during the undertaking of the assessment to date.

What happens at the end of the process?

An SEA Statement is prepared which summarises, inter alia, how environmental considerations have been integrated into the Variation.

Section 2 The Variation

2.1 Introduction and Content

Variation No. 1 to the South Dublin County Development Plan 2022-2028 has been prepared and made pursuant to Section 13 of the Planning and Development Act 2000 (as amended). The Variation provides a Local Planning Framework for the sustainable development of Clondalkin, while considering the conservation and protection of the built and natural environment. It sets out an overall strategy for the proper planning and sustainable development of Clondalkin in terms of its social, cultural, economic and physical development.

2.2 Variation Format

The Variation's Local Planning Framework for Clondalkin follows the layered approach taken by the County Development Plan, building on the different elements of plan making chapter to chapter through relevant objectives. These are then carried forward into the Urban Design chapter which allows for a focus on principles for development taking account of what has gone before and the need for the integration of the different elements.

The Local Planning Framework should be read as a whole as the objectives and measures combine to provide a holistic and sustainable approach to development. It is accompanied by a Conservation Plan, Architectural Conservation Area character appraisals and the Local Transport Plan. Each of these documents has informed the relevant chapters within the Local Planning Framework.

The Local Planning Framework is also accompanied by environmental assessments, the findings of which are provided in an SEA Environmental Report (of which this Non-Technical Summary is a part), a Screening for AA Report and a SFRA Report.

The Local Planning Framework is intended for use by all stakeholders with an interest in Clondalkin and its development. This includes but is not limited to residents, interest groups, the local authority, landowners and developers to gain an insight into what is required to be considered as part of any future changes or proposals within the village and the wider Plan area.

As a variation, the Local Planning Framework will come into immediate effect once adopted and will be part of the County Development Plan until that plan expires. As such the provisions of the County Development Plan shall be complied with throughout the implementation of the Local Planning Framework.

2.3 Overall Vision and Strategic Objectives

The Variation's Local Planning Framework sets out the following vision: "That Clondalkin is a vibrant, sustainable community rooted in its unique history and heritage, where people of all ages and backgrounds can enjoy a rich mix of culture, social connections, and economic opportunities. With new green areas and easy-to-use transport options, everyday life will be improved, making it safer and more enjoyable for everyone and where people will love to live, work, visit, and invest in the future."

The Vision is accompanied by other provisions including the following Strategic Objectives:

1. Promote good urban design and healthy placemaking to create a strong sense of place and to build positively on Clondalkin's rich identity.
2. Recognise the cultural, historic and economic value of the heritage assets of Clondalkin, promoting their appropriate re-use where underutilised and ensuring that new development responds sensitively to all such assets.
3. Promote improved travel choices to achieve a reduction in vehicular traffic and through traffic, by the integration of active travel measures and schemes, improved public transport, and improved walking routes to and from key destinations.
4. Ensure that areas of concentrated new growth are well connected to the town centre and to the surrounding areas, ensuring the necessary infrastructure is provided as required, adding to the vitality of the town.
5. Promote and enhance a diverse and resilient local economy, building on the vibrancy that currently exists.
6. Strengthen and expand the existing green infrastructure, as the foundation of a green and blue infrastructure network in the village and surrounding areas.

7. Enable future growth in line with the compact growth approach, optimising densities, as appropriate, across the Plan area, prioritising brownfield land, ensuring that the mix and intensity of land uses are appropriate to their location in the town and their historical context and to their access to facilities, amenities, and public transport.
8. Promote climate action and support the designation of Clondalkin as a DZ Zone by integrating climate action policy, objectives and measures into all aspects of the plan making process, which will deliver the strategic objectives of the Plan.

2.4 Strategic work undertaken by the Council to ensure evidence-based planning

In preparing the Variation, information relating to various sectors, from different Departments within the Councils and from different bodies and organisations, was gathered and analysed, contributing towards the development of evidence-led provisions. This work included preparing the following documents that are appended to the Variation: Conservation Plan; Architectural Conservation Area character appraisals; and the Local Transport Plan.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into individual Variation provisions as summarised in Section 6 of this report.

2.5 Relationship with other relevant Plans and Programmes

It is important to note that when reading the Variation, the policy objectives of the existing County Development Plan are relevant, must be complied with throughout the implementation of the Local Planning Framework and, in this regard, both documents should be read in tandem with each other.

The existing County Development Plan to be varied sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Variation must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents have been subject to their own environmental assessment processes, as relevant.

The First Revision of the National Planning Framework sets out Ireland's planning policy direction up to 2040. The National Planning Framework is to be implemented through Regional Spatial and Economic Strategies and lower tier Development Plans and Local Area Plans. The Regional Spatial and Economic Strategy for the Eastern and Midland Region sets out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must, as relevant and appropriate, be implemented through the County Development Plan to be varied, that sets out the overarching development strategy for the County, including Clondalkin.

In order to be realised, projects included in the Local Planning Framework (in a similar way to other projects from any other sector) will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier Appropriate Assessment, Environmental Impact Assessment and other licencing requirements as appropriate) that form the statutory decision-making and consent-granting framework.

Section 3 The Environmental Baseline

3.1 Introduction

The summary of the environmental baseline of Clondalkin is described in this section. This baseline together with the Strategic Environmental Objectives, which are identified in Section 3.11, is used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Variation and in order to determine appropriate monitoring measures.

3.2 Likely Evolution of the Environment in the Absence of a Variation

In the absence of a Variation, the framework for development across Clondalkin would be provided by the County Development Plan and other related documents. There would be no Variation to provide additional detail beyond that provided already through the existing planning framework as how to achieve sustainable development and environmental protection and management in Clondalkin.

As a result, there would be both:

- A decreased likelihood in the extent, magnitude and frequency of the positive environmental effects identified by this assessment occurring; and
- An increased likelihood in the extent, magnitude and frequency of the adverse environmental effects identified by this assessment occurring.

3.3 Biodiversity and Flora and Fauna

Key ecological sensitivities within and surrounding Clondalkin include:

- **Grand Canal proposed Natural Heritage Area designated partially within/adjacent to the northern parts of the area to which the Variation relates.** Sensitive features of this site comprise: otter; white-clawed crayfish; and bats species (common pipistrelle, soprano pipistrelle, Leisler's bat, Daubenton's bat and brown long-eared bat).
- **Locally important, non-designated habitats within and surrounding the area to which the Variation relates,** including various woodlands, parks, gardens, hedgerows and old buildings/stone walls, providing habitats for flora and fauna and facilitating linkages and corridors to the surrounding areas for the wildlife; and
- **Aquatic and riverine ecology** associated with the River Camac and its tributaries and riparian buffer zones, including the **River Camac and the Grand Canal.**

Special Areas of Conservation¹ (SACs) and Special Protection Areas² (SPAs) within 15 km of Clondalkin are mapped at Figure 3.1.

Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface. The CORINE 2018³ mapping (shown on Figure 3.2) identifies the land cover of central parts of the area to which the Variation relates as urban fabric containing areas of industrial or commercial units and adjacent sport and leisure facilities. The surrounding hinterland consists of pastures, non-irrigated arable land and roads and rail networks.

¹ SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000. The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The Regulations have been prepared to address several judgments of the Court of Justice of the European Union (CJEU) against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.

² SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.

³ The CORINE (Co-ordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures. Peatlands and wetlands are the second most widespread land cover type, covering almost one-fifth of the country. While forested areas cover about one-tenth of the country. Despite rapid development in the past two decades, Ireland's landscape is predominantly rural and agricultural.

Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (DCHG, 2019) identifies various Irish, EU-protected habitats and species to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. Ireland's Article 12 Birds Directive Reports and the 6th National Report under the Convention of Biological Diversity identify similar issues.

The Variation includes measures to contribute towards the protection of biodiversity and flora and fauna and associated ecosystem services. Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna; however, legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

3.4 Population and Human Health

The results of Census 2022 recorded a population of 12,750 persons within the CSO boundary of the area to which the Variation relates.

Clondalkin (which includes the area to which the Variation relates) is located within Dublin City and Suburbs, identified in the South Dublin County Development Plan 2022-2028 as an international business core with a highly concentrated and diversified employment base and higher order retail, arts, culture and leisure offer. It also serves as a national transport hub with strong inter and intra-regional connections and an extensive commuter catchment.⁴

The population provided for in the Planning Framework will interact with various environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes;
- Contribution towards increase in demand for waste water treatment at the municipal level;
- Contribution towards increase in demand for water supply and associated potential impact of water abstraction;
- Potential interactions in flood-sensitive areas; and
- Potential effects on water quality.

Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Variation.

Existing Problems

The number of homes within Clondalkin with radon levels above the reference level is within the normal range experienced in other locations across the country.

Parts of Clondalkin are vulnerable to adverse effects from changes in the occurrence of severe rainfall events and associated flooding from surface water. Flooding in certain circumstances could pose a risk to human health. There is historic and predictive evidence of flooding within Clondalkin.

3.5 Soil

Main soil types⁵ surrounding the built-up areas⁶ of Clondalkin are: luvisol soils (generally fertile, widely used for agriculture and associated with significant accumulation of clay); and alluvial soils (associated with alluvial clay, silt or sand river deposits).

⁴ South Dublin County Development Plan 2022-2028.

⁵ All soil types belong to a Sub-Group and so in turn to one of the 11 soil Great Groups. Great Groups and Sub-Groups are a hierarchical arrangement of soils used for taxonomical classification (<http://gis.teagasc.ie/soils/soilguide.php>).

⁶ The built-up areas are mainly made up of urban soils. Urban soils are soils, which have been disturbed, transported or manipulated by human activity in the urban environment and are often overlain by a non-agricultural, man-made surface layer that has been produced by mixing, filling or by contamination of land surfaces in urban and suburban areas.

The GSI (Geological Survey Ireland) have a suite of data sources available that would be useful in planning and assessing individual projects with regard to the environmental topic(s) of soil and/or material assets. These include:

- Aggregate Potential Mapping;
- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

Geological Survey Ireland coordinate the Irish Geological Heritage Programme, whereby an objective has been set to identify and select sites of geological interest within each county across the country. County Geological Sites (CGSs) do not receive statutory protection like Natural Heritage Areas but receive an effective protection from their inclusion in the planning system. The audit of CGSs in South Dublin was completed in 2014, which identified ten CGSs. There are no designated County Geological Sites occurring within the area to which the Variation relates, however Belgard Quarry CGS (Site Code: SD002) is located adjacent to the south-west of the area to which the Variation relates.

The term "landslide" describes a wide variety of processes that result in the downward and outward movement of materials such as rock, debris, earth, mud and peat under the force of gravity. Issues such as existing ground conditions, slope stability and storage of excavated material have the potential to influence susceptibility to landslides/bog bursts. The potential impacts of landslides include loss of human life/injury, flooding, pollution of watercourses and impacts upon aquatic biodiversity. The GSI have identified⁷ Clondalkin as having mainly low levels of landslide susceptibility.

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species. As is the case with other urban and semi-urban areas across the country, there is potential for contamination at sites within Clondalkin, especially where land uses occurred in the past, in the absence of environmental protection legislation.

Existing Problems

Legislative objectives governing soil were not identified as being conflicted with.

3.6 Water

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires that all Member States implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving *good status*. All public bodies are required to coordinate their policies and operations so as to maintain the *good status* of water bodies that are currently unpolluted and improve polluted water bodies to *good status*.

Surface water at and around the area to which the Variation relates is channelled by the River Camac, its tributaries and a canal. The River Camac flows from the south-west in the north-eastern direction through the centre of the area to which the Variation relates, and the Grand Canal flows from the west to east, in the northern parts of the area to which the Variation relates.

The current WFD (2016-2021) status⁸ of surface waters draining the area to which the Variation relates is *good* (identified by the EPA as 'Grand Canal Main Line [Liffey and Dublin Bay]) and *poor* (identified by the EPA as 'Camac_030' and 'Camac_040').

The WFD status (2016-2021) of all groundwater underlying the area to which the Variation relates is currently identified as being of *good* status and meeting the objectives of the WFD.

A Strategic Flood Risk Assessment (SFRA) document accompanies the SEA Environmental Report and the Variation. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular

⁷ <https://www.gsi.ie/en-ie/programmes-and-projects/geohazards/projects/Pages/Landslide-Susceptibility-Mapping.aspx>

⁸ As per EPA's WFD Status 2016-2021 classification (<https://gis.epa.ie/EPAMaps/>).

PL2/2014. Flood risk management and drainage provisions are already in force through the South Dublin County Development Plan 2022-2028 and related provisions have been integrated into the Variation.

The most significant source of flood risk within the area to which the Variation relates is from a fluvial source (the River Camac). There are other sources of flooding present including from pluvial (rainwater) and from surface drainage systems sources.

As the Variation is being written, the Camac Flood Alleviation Scheme is being prepared by the OPW, South Dublin County Council and Dublin City Council to help overcome the flooding of urban areas.

Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, the recorded status the River Camac will need improvement in order to comply with the objectives of the WFD. The Variation includes provisions that will contribute towards improvements in the status of waters.

There is elevated levels of flood risk from fluvial sources at various locations across Clondalkin. The preparation of the Variation, SEA and SFRA have taken place concurrently and the findings of the SFRA have informed both the Variation and the SEA.

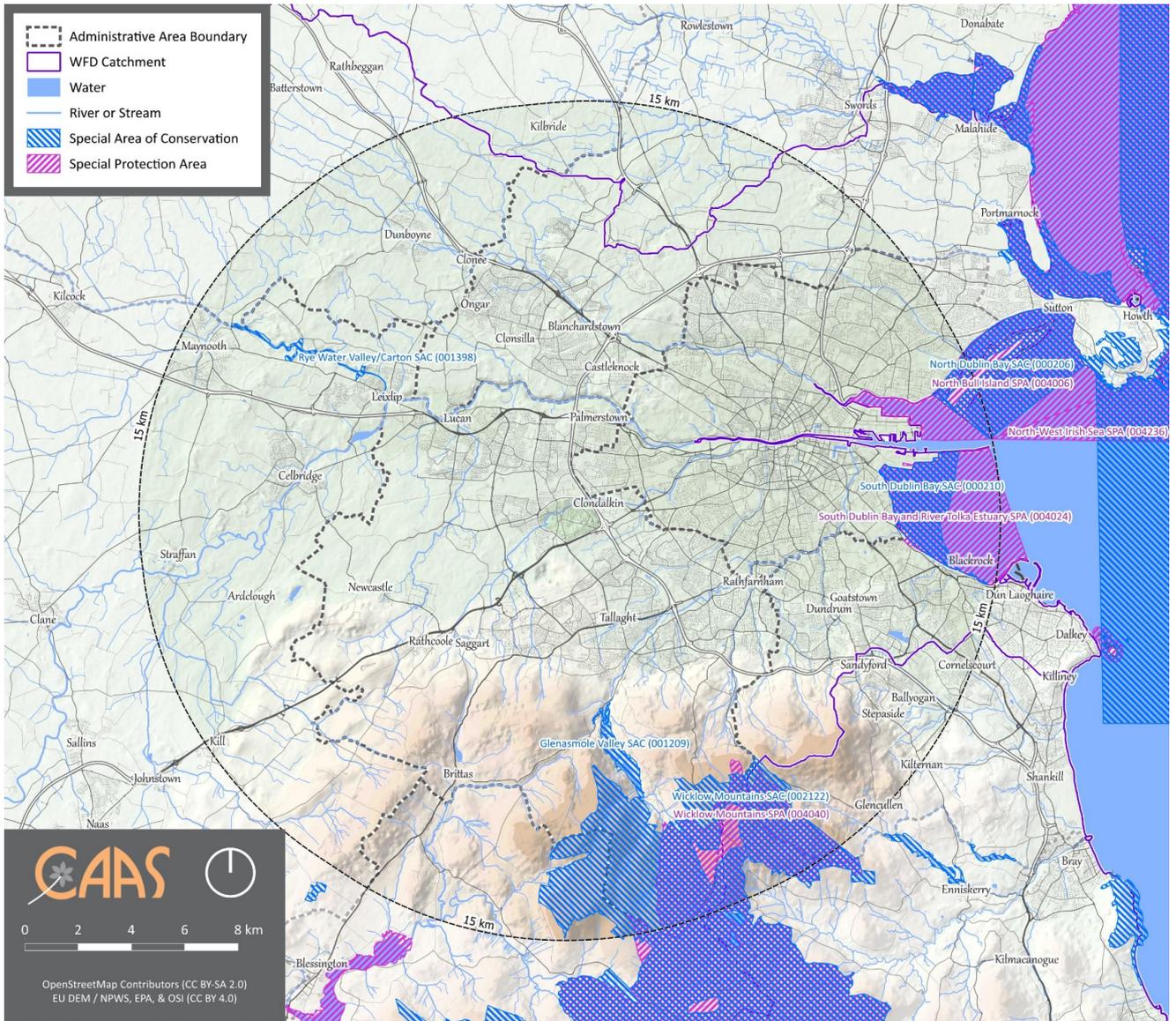


Figure 3.1 European Sites within and within 15 km buffer of Clondalkin

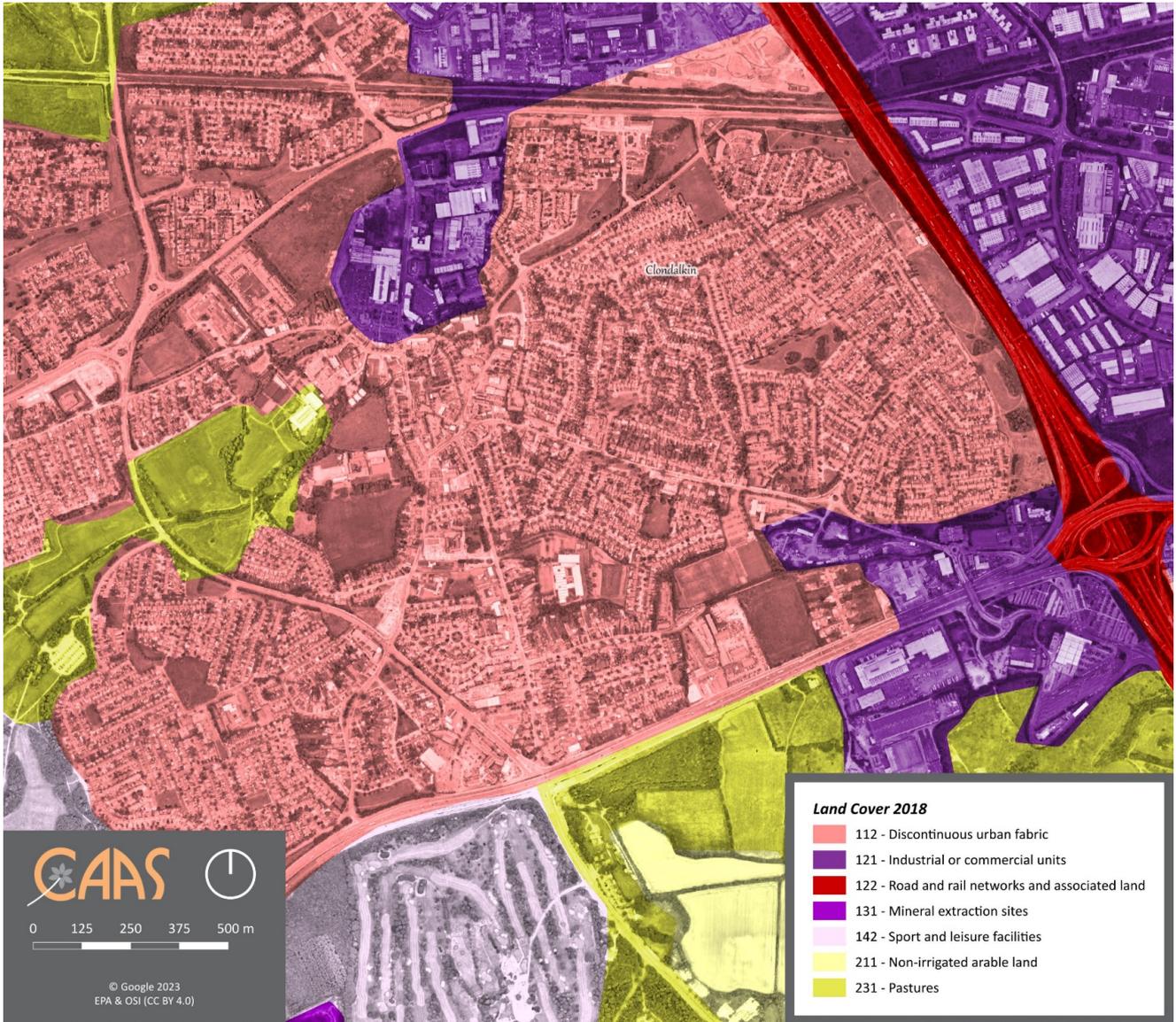


Figure 3.2 CORINE Land Cover Mapping 2018



Figure 3.3 Surface and Ground Water Status (2016-2021)

3.7 Air and Climatic Factors

Total emissions of greenhouse gases by humans come from various sectors including transport, agriculture, energy industries, manufacturing combustion, industrial processes, residential developments, commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems).

In 2023, Ireland's greenhouse gas emissions are estimated to be 55.01 million tonnes carbon dioxide equivalent (Mt CO₂ eq), which is 6.8% lower (or 4.00 Mt CO₂ eq) than emissions in 2022 (59.00 Mt CO₂ eq) and follows a 2.0% decrease in emissions reported for 2022. Emissions are 1.2% below the historical 1990 baseline for the first time in 33 years. In 2023, emissions in the stationary EU Emissions Trading System emissions (covering emissions from sectors including Agriculture, Transport, Energy, Industries, Residential, Manufacturing Combustion and Industrial Processes) decreased by 17%. When land use, land-use change and forestry is included, total national emissions decreased by 3.8%. Emissions under the Effort Sharing Regulation (covering emissions from the electricity and heat generation, industrial manufacturing and aviation sectors) decreased by 3.4%. Decreased emissions in 2023 compared to 2022 were observed in the largest sectors except for transport which showed an increase of 0.3%.

Climate mitigation describes the action to reduce the likelihood of climate change occurring or reduce the impact if it does occur. This can include reducing the causes of climate change (e.g. emissions of greenhouse gases) as well as reducing future risks associated with climate change. The National Climate Action Plan 2025 is the third statutory update to the plan since the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law, committing Ireland to 2030 and 2050 targets for reducing greenhouse gas emissions. It builds on Climate Action Plan 2024, outlining how Ireland will accelerate the actions required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development.

Climate adaptation is a change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts. The National Adaptation Framework (2024) aims to create a unified approach involving both government and society to adapt to climate change. It outlines how various sectors and local authorities can implement adaptation measures to minimise Ireland's vulnerability to climate change's adverse effects while taking advantage of any beneficial impacts. The Framework emphasises the importance of integrating adaptation strategies into all levels of policy making, infrastructure development, and local planning.

The South Dublin County Council Climate Action Plan 2024-2029 sets out mitigation, adaptation and other climate measures to create a low carbon and climate resilient County. The Climate Action Plan sets out a range of actions across six theme areas of Energy and Buildings, Transport, Flood Resilience, Nature Based Solutions, Circular Economy and Resource Management and Citizen Engagement. The South Dublin Climate Action Plan also makes provision for South Dublin's first Decarbonising Zone (DZ) to be established in an area in Clondalkin (the area to which the Variation relates). It identifies a potential emissions reduction pathway for transport emissions within the Clondalkin DZ by 2030, including measures associated with:

- Bus electrification;
- Light and heavy good vehicles (reduction in vehicle kilometres); and
- Car use and active travel, prioritise active travel (walking, cycling).

The EPA's (2024) *Air Quality in Ireland 2023 Report* identifies that:

- Ireland's latest monitoring shows we are in compliance with current EU standards.
- Ireland is not on track to achieve its ambition, set out in the National Clean Air Strategy, to meet the health-based WHO air quality guideline limits in 2026.
- Main pollutants of concern are fine particulate matter (PM_{2.5}) from solid fuel combustion and nitrogen dioxide (NO₂) from vehicle emissions/traffic.
- Air pollution can be a major environmental risk to people's health, with approximately 1,600 premature deaths annually in Ireland due to poor air quality.

The report further identifies the critical role of local authorities in the enforcement and implementation of existing plans and investment in infrastructure to encourage cleaner and healthier air quality choices, including:

- Local authorities must provide more resources to implement the new solid fuel regulations and full implementation of air quality plans.
- Local authorities must prioritise resource allocation of resources to advance enforcement.
- Investment in clean public transport infrastructure across the country must be maintained and increased.
- More safe footpaths and cycle lanes must be created to continue to increase active travel as a viable and safe alternative to car use and associated NO₂ emissions.

Existing Problems

Significant progress is being made in the reduction of Ireland's greenhouse gas emissions. The EPA's 2024 publication Ireland's Greenhouse Gas Emission Projections 2023-2040 identifies that Ireland's emissions, under the Emissions in the 'Planned Additional Measures' scenario, which includes most 2024 Climate Action Plan measures, are projected to be 29% lower in 2030 (compared with 2018). However, this would not meet the 51% emissions reduction target (by 2030 compared to 2018) based on these projections.

In the Climate Change Advisory Council's *Annual Review 2024*, the findings of an assessment of the degree to which progress is being made solely in the implementation of adaptation policy and increasing resilience for the period April 2023 to March 2024 is provided. The Review details that four sectors (Transport, Flood Risk Management, Built and Archaeological Heritage and Local Government) demonstrated good overall progress, six showed moderate progress (Agriculture, Forestry and Seafood, National Adaptation Framework, Communications Networks, Water Quality and Water Services Infrastructure, Health and Electricity and Gas Networks) and one (Biodiversity) showed no progress and supplied insufficient evidence. This was a slight improvement compared with the results in 2023.

Air quality and noise can present challenges, especially in urban areas, as detailed under the relevant sub-sections above. With regard to air quality, air pollution from transport is dominated by NO_x emissions. Of these, NO₂ is particularly impactful from a health perspective. The Variation will help to facilitate reductions in emissions and a transition from dependence on fossil fuel combustion powered transport.

3.8 Material Assets

Other material assets, in addition to those referred to below, covered by the SEA include archaeological and architectural heritage (see Section 3.9) natural resources of economic value, such as water and air (see Sections 3.6 and 3.7).

Public Assets and Infrastructure

Public assets and infrastructure that have the potential to be impacted upon by the Variation, if unmitigated, include: resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, waste water infrastructure etc.); and natural resources that are covered under other topics such as water and soil.

Land

The Variation has the potential to assist with the reuse and regeneration of brownfield sites thereby contributing towards sustainable mobility and reducing the need to develop greenfield lands and associated potential adverse environmental effects. Brownfield lands are generally located within urban/suburban areas.

Green Infrastructure

Parks and open space promote health and well-being, provide recreational facilities and range of habitats for various species. Green Infrastructure (GI) is also a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality.

Various county GI corridors converge at the northeastern edge of Clondalkin. The Grand Canal is a key national Green Infrastructure feature, acting as a major ecological and recreational link between the River Shannon in the midlands and Dublin City where the canal enters the sea. The Camac River corridor follows the route of the River Camac through the Variation area. Corkagh Park is identified as a strategic GI Core area within the County. It offers significant amenity value, with open spaces, walkways, cycleways, and passive recreation areas. It also provides active amenity opportunities including football pitches, cricket

facilities, cycling track and playgrounds. Knockmitten Park forms part of the GI corridor along the M50 boundary, buffering adjoining residential areas from the M50.⁹

Woodland

Woodlands provide recreational opportunities in addition to their heritage and economic benefits. They are a valuable resource in terms of biodiversity, recreation and tourism, and also important as links in the green infrastructure network.

Transport

The Clondalkin Town Centre area is located west of the M50 Motorway and north of the N7 National Primary Route Road. The M50 is Dublin City's primary ring road which carries high volumes of traffic to and from the national road network. The N7 provides key connectivity to Clondalkin from the national road network through the grade separated interchange at Fonthill Road (R113) and N7 (referred to as Newlands Cross).

The R113 Fonthill Road and R134 New Nangor Road are two regional roads that run along the western and northern boundary of Clondalkin village. The R113 runs in a north-south direction, providing a link between the N4, N7 and N81 as well as providing a western by-pass of Clondalkin village. The R134 runs in an east-west direction and provides a key link to and from the city centre while also providing a northern by-pass of the village.

Clondalkin is served by both commuter rail and light rail services, however, not directly within the Plan area. The nearest commuter rail station (Clondalkin-Fonthill) is located approximately 1.5 km from the village centre and the nearest light rail station (Luas Red Cow) is approximately 2 km to the south-east of the village centre. The Park West and Cherry Orchard Train Station is 1.6 km from the village centre.

As part of the preparation of the Variation, an Area Based Transport Assessment (ABTA) that has allowed a wide range of background data and information (including details on travel patterns, origin and destination data, existing and future demand analysis, existing transport infrastructure and general area land use characteristics). The findings of the ABTA are provided in a Local Transport Plan that accompanies the Local Planning Framework.

Waste Water

Uisce Éireann, working in partnership with South Dublin County Council, is making investments to undertake essential upgrade works to waste water treatment plants in towns and villages across the County. The upgrading of infrastructure will contribute towards compliance with the Water Framework Directive, EU Urban Waste Water Treatment Directive and Drinking Water Regulations and will help to protect human health and maintain the quality of surface and ground waters.

The Ringsend Wastewater Treatment Plant (WWTP) has a current upgraded design capacity of 2.1 million Population Equivalent (PE)¹⁰, with current load of c. 2.2 million PE.¹¹ Uisce Éireann completed construction of the most recent upgrade at the end of 2023. Following a period of testing and commissioning the upgraded assets are operational. The remaining project elements are scheduled to deliver the capacity for 2.4 million PE by the end of 2025.¹²

Water Supply

Uisce Éireann is responsible for providing and maintaining adequate public water supply infrastructure throughout South Dublin.

The area to which the Variation relates is located within the Greater Dublin Area Water Resource Zone¹³ and as identified by Uisce Éireann, has spare capacity available to meet targeted population growth by 2033, although an improvement in level of service is required¹⁴.

⁹ Variation No. 1

¹⁰ Population Equivalent (PE) is a measurement of the organic biodegradable load. A population equivalent of 1 (1 PE) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD₅) of 60 g of oxygen per day; the load is calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain.

¹¹ https://www.water.ie/sites/default/files/docs/aers/2022/D0034-01_2022_AER.pdf

¹² (<https://www.water.ie/projects/local-projects/ringsend-wastewater-treatment-plant-upgrade-project>).

¹³ A Water Resource Zone (WRZ) is an independent water supply system serving a region, city, town or village and is governed by topography or the extent of the water distribution network in an area. A WRZ may include multiple Water Treatment Plants and/or sources.

¹⁴ <https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/dublin>

Under Section 58 of the Environmental Protection Agency Act 1992, the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the Regulations mentioned above. The most recent EPA Remedial Action List (Q4 of 2024, published in 2025)¹⁵ does not include any water scheme that supplies the area to which the Variation relates.

Waste Management

The National Waste Management Plan for a Circular Economy (Regional Waste Management Planning Offices, 2024) sets out a framework for the prevention and management of waste in Ireland for the period 2024 to 2030. The Variation seeks to influence sustainable consumption and prevent the generation of waste, improve the capture of materials to optimise circularity and enable compliance with policy and legislation.

Existing Problems

The provisions of the Variation will contribute towards protection of the environment with regard to impacts arising from material assets. The provision of infrastructure and supporting services for development, particularly water and wastewater services, is critical.

3.9 Cultural Heritage

Archaeological Heritage

The Record of Monuments and Places (RMP) is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped. It is available from the National Monuments Service and at archaeology.ie.

There are various entries to the RMP within and surrounding the area to which the Variation relates, including: a round tower; castle; graveyard; crosses; historic town; water mill; churches; and ecclesiastical enclosures; and two National Monuments in State Care located within the area to which the Variation relates, Clondalkin Round Tower and Cross (Ownership) and Archbold's Castle (Ownership).

Architectural Heritage

Protected structures are defined in the Planning and Development Act 2000 as amended as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view. There are 19 Protected Structures within the area to which the Variation relates, many of which are located within the Clondalkin Village Architectural Conservation Area. Notable Protected Structures include: Neilstown Lodge; Coolevin House; Grange Castle; St John's Church and Former Fairview Oil Mills.

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. An ACA may or may not include Protected Structures. In an ACA, protection is placed on the external appearance of such areas or structures. There are currently two ACAs designated within the area to which the Variation relates: Clondalkin Village; and St Brigid's Cottages, townland of Bushelloaf, Clondalkin.

Existing Problems

The context of archaeological and architectural heritage has changed over time however no existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

¹⁵ Available at: <https://www.epa.ie/publications/compliance--enforcement/drinking-water/annual-drinking-water-reports/Q2-2024-RAL-for-public-drinking-water-supplies-FINAL.pdf>
CAAS for South Dublin County Council

3.10 Landscape

Clondalkin is located on relatively flat land that rises gently to the south of the area to which the Variation relates. The River Camac flows from south-west to north-east through the centre of the area, and the Grand Canal flows from the west to the east, in the northern parts of Clondalkin. The land surrounding the area to which the Variation relates is predominantly urban with areas of pastures to the north, west and south. The urban fabric of the area to which the Variation relates was influenced by an early Medieval structure elements, including enclosures, a unique street pattern and a round tower.

As identified in the Local Planning Framework, Clondalkin possesses multiple vantage points from within the public realm and enclosing parks offering views and specific vistas of the round tower and church spires. Historic routes into the village centre along Old Nangor Road, Ninth Lock Road, Monastery Road and Convent Road are predominantly flanked by stone walls of architectural and social interest, framing incidental vistas of landmark buildings and amenities.

Existing Problems

New developments have resulted in changes to the visual appearance of lands within Clondalkin however legislative objectives governing landscape and visual appearance were not identified as being conflicted with.

3.11 Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies that generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives that have been transposed into Irish law and which are required to be implemented. The SEOs are set out under a range of topics (see Table 3.1) and are used as standards against which the provisions of Clondalkin and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if – in the case of adverse effects – unmitigated.

Table 3.1 Strategic Environmental Objectives

Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	No net contribution to biodiversity losses or deterioration	BFF	<ul style="list-style-type: none"> • Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats. • Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function. • Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Enhance biodiversity in line with the National Biodiversity Strategy and its targets.
Population and Human Health	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	PHH1	<ul style="list-style-type: none"> • Provide high quality residential, community, working and recreational environments with access to sustainable transport options. • Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection. • Ensure that existing population and planned growth is linked with the required infrastructure and the services. • Protect human health and well-being from environment-related pressures.
Soil (and Land)	Ensure the long-term sustainable management of land	S	<ul style="list-style-type: none"> • Safeguard sensitive soil, resources and geological heritage sites against pollution and degradation. • Promote the sustainable use of infill and brownfield sites over the use of greenfield within the county.
Water	Protection, improvement and sustainable management of the water resource	W	<ul style="list-style-type: none"> • Protect and where necessary improve and maintain water quality and the management of watercourses and groundwater in compliance with the requirements of the Water Framework Directive objectives and measures. • Avoid inappropriate development in areas at risk of flooding and areas that are vulnerable to current and future erosion. • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals.

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Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Material Assets	Sustainable and efficient use of natural resources	MA	<ul style="list-style-type: none"> • Make best use of existing infrastructure, promote the sustainable development of new infrastructure and protect existing assets, to meet the needs of the county and South Dublin's population. • Promote the circular economy, reduce waste, and increase energy efficiencies. • Ensure there is adequate sewerage and drainage infrastructure in place to support new development. • A reduction in energy demand from the transport sector and support moves to electrification of road and rail transport modes.
Air	Support clean air policies that reduce the impact of air pollution on the environment and public health	A	<ul style="list-style-type: none"> • To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture. • Minimise travel related emissions and encourage a modal change from car to more sustainable forms of transport. • Minimise noise emissions associated with traffic and transport and other noise and wind related industry etc.
Climatic Factors	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	C	<ul style="list-style-type: none"> • Minimise contribution to Climate Change by adopting mitigation and adaptation measures. • Integrate sustainable design solutions into the county's infrastructure (e.g. energy efficient buildings; green infrastructure). • Contribute towards the reduction of greenhouse gas emissions in line with national targets. • Encourage and promote development resilient to the effects of climate change. • Promote the use of renewable energy, energy efficient development and increased use of public transport.
Cultural Heritage	Safeguard cultural heritage features and their settings through responsible design and positioning of development	CH	<ul style="list-style-type: none"> • Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage from impact as a result of development.
Landscape	Protect and enhance the landscape character	L	<ul style="list-style-type: none"> • Protect and maintain the special qualities of the landscape character, especially with regard to areas of high amenity.

Section 4 Alternatives

4.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme, or variation to these) are identified, described and evaluated for their likely significant effects on the environment. Summaries of the alternatives for the Variation and their assessment are provided below.

4.2 Limitations in Available Alternatives

The Variation is being prepared as part of the implementation of the existing, already in force, South Dublin County Development Plan 2022-2028 (QDP14 Objective 3).

The alternatives available for the Variation are significantly limited by the provisions of higher-level planning objectives, including those of the National Planning Framework, the Eastern and Midlands Regional Spatial and Economic Strategy, Ministerial Guidelines and the County Development Plan. These documents set out various requirements for the content of the Planning Framework, including on topics such as population, land use zoning and proper planning and sustainable development.

4.3 Alternatives Description and Assessment Summary

Notwithstanding the limitations above, three alternative scenarios on how to prioritise the nature of Clondalkin's growth through the Variation are identified:

1. Growing Clondalkin with an Emphasis on Local Vitality

This alternative would allow for development targets to be met within Clondalkin, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of Clondalkin, in areas that are potentially more sensitive, less well-serviced and less-well connected. As a result, the protection and management of environmental components beyond Clondalkin would be benefited. Strengthened connections between the growth areas and the village centre, and local businesses, provision of necessary social and community facilities, improved accessibility and enhanced public realm in the Village Centre and associated areas would contribute towards improvements in vibrancy and vitality and make these places more attractive to live in, work in and visit. Furthermore, vibrancy would be enhanced through supporting heritage related tourism.

By using road space to promote active travel would help to deliver travel solutions that support moving people from the private car to the more sustainable modes of walking, cycling and using public transport, and by providing for improved accessibility to central areas and enhancement of public realm, while also facilitating vehicular movement, this alternative would benefit efforts to reduce traffic and maximise sustainable mobility (including associated interactions with air, climate mitigation and human health) and maximise infrastructural and services efficiencies (including associated interactions with population) to a greater degree, conflicting with these efforts to a lesser degree. There would be potential for displacement of traffic to lead to localised increases traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels. There would also be potential for reduced convenient accessibility to certain areas for car dependent persons.

As with other alternatives, potential conflicts between new development (residential, community, enterprise and employment, transport or open space related development, for example) on zoned lands and the protection of and management of the environment would occur and would need to be mitigated. The development of new connections (cycling routes and paths) present a variety of potentially adverse environmental effects that would, if unmitigated, have the potential to arise from both the construction

and operation of such developments and/or their ancillary infrastructure. These types of infrastructure are sometimes constructed in ecologically and visually sensitive areas, adjacent to the banks of rivers and streams.

2. Growing Clondalkin with an Emphasis on Green Environment

This alternative would allow for development targets to be met within Clondalkin, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of Clondalkin, in areas that are potentially more sensitive, less well-serviced and less-well connected. As a result, the protection and management of environmental components beyond Clondalkin would be benefited.

This alternative would benefit the protection and management of following environmental components within Clondalkin:

- Biodiversity and flora and fauna (creating and enhancing green corridors and linkages through urban areas and connecting these to the wider green network, including the Grand Canal, Clondalkin Park, Corkagh Park and Knockmitten Park, and providing more space on streets for enhanced greening)
- Population and human health (access to green spaces, street greening, active travel prioritisation – street space would have more space for walking and cycling)
- Soil (protection and enhancement of green spaces)
- Air and Climatic factors (active travel prioritisation and climate resilience through implementation of nature-based solutions, including natural solutions to flooding and surface water management)
- Water (implementing natural solutions to flooding and surface water management and protecting and enhancing green spaces)
- Landscape (protection and enhancement of green spaces and more space for street greening).

By allowing for development targets to be met within Clondalkin and providing a degree of active travel prioritisation, this alternative would benefit efforts to maximise sustainable mobility (including associated interactions with air, climate mitigation and human health) and infrastructural and services efficiencies (including associated interactions with population) to a moderate degree. New development would have to be accompanied by appropriate levels of infrastructure and services.

As with other alternatives, potential conflicts between new development (residential, community, enterprise and employment, transport or open space related development, for example) on zoned lands and the protection of and management of the environment would occur and would need to be mitigated.

3. Growing Clondalkin with an Emphasis on Heritage

This alternative would allow for development targets to be met within Clondalkin, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of Clondalkin, in areas that are potentially more sensitive, less well-serviced and less-well connected. As a result, the protection and management of environmental components beyond Clondalkin would be benefited.

This alternative would benefit the long-term protection, management and enhancement of cultural heritage assets (including historic walls, views of the Round Tower, the Architectural Conservation Area and other archaeological and architectural heritage) through the:

- Public realm works under the Proposed Village Enhancement Scheme on the Old Nangor Road, which would facilitate adaptive re-use of former RIC Barracks building;
- Provide greater space within the village centre and traffic calming to allow for a greater appreciation of heritage features; and
- Activation of street frontage and connections to effect regeneration of the built heritage and to integrate the village centre with new development within the large framework sites.

These interventions would contribute towards placemaking and improvements to the vitality and vibrancy of Clondalkin, making it more attractive to live in, work in and visit. These aspects would be further enhanced through supporting heritage related tourism.

By allowing for development targets to be met within Clondalkin and providing a degree of active travel prioritisation, this alternative would benefit efforts to maximise sustainable mobility (including associated interactions with air, climate mitigation and human health) and infrastructural and services efficiencies (including associated interactions with population) to a moderate degree. New development would have to be accompanied by appropriate levels of infrastructure and services.

As with other alternatives, potential conflicts between new development (residential, community, enterprise and employment, transport or open space related development, for example) on zoned lands and the protection of and management of the environment would occur and would need to be mitigated.

4.4 Reasons for Choosing the Selected Alternatives in light of Other Reasonable Alternatives Considered

The 'Selected Alternative' for the Planning Framework integrates the following components from the three above evaluated alternative scenarios for the Planning Framework:

- from "Alternative 1: Growing Clondalkin with an Emphasis on Local Vitality"
 - Strengthened connections and improved accessibility between the growth areas and the village centre, and local businesses;
 - Development of a network that links open spaces;
 - Enhancement of public realm;
 - Provision of social and community facilities;
 - Supporting of heritage related tourism;
 - Facilitates a reallocation of road space to promote active travel and that supports more sustainable modes including walking and cycling;
 - Facilitates vehicular movement insofar as possible;
 - Maximises infrastructure and services efficiencies and their interactions with the population;
 - Safeguards the protection and management of the environment through development of new connections and the promotion of active travel in appropriate locations as they are sometimes constructed in ecologically and visually sensitive areas, adjacent to the banks of rivers and streams; and
 - Overall, improvements in vibrancy and vitality to make Village Centre and associated areas more attractive to live in, work in and visit.
- from "Alternative 2: Growing Clondalkin with an Emphasis on Green Environment"
 - Creating and enhancing green corridors and linkages through urban areas and connecting these to the wider green network, including the Grand Canal, Clondalkin Park, Corkagh Park and Knockmitten Park;
 - Prioritisation of the natural environment through enhanced street greening by planting and utilising nature-based solutions, supported by the additional space and opportunities provided by the Village Enhancement Scheme and other schemes;
 - Protection and enhancement of landscape;
 - Protection and enhancement of soil;
 - Promotion of climate resilience through the implementation of nature-based solutions, including natural solutions to flooding and surface water management;
 - Provides a degree of active travel measures; and
 - Overall, enhancement of a green environment leading to improvements in human health and contributes towards Clondalkin's decarbonisation and climate adaptation.

from "Alternative 3: Growing Clondalkin with an Emphasis on Heritage"

- Supporting Heritage related tourism and enhancing vitality;
- Protection and conservation of historic buildings, walls, routes and landuses through public realm works including those under the Proposed Village Enhancement Scheme;
- Providing greater space within the village centre and traffic calming to allow for a greater appreciation of heritage features;
- Promoting the activation of street frontage and connections to effect regeneration of the built heritage and to integrate the village centre with new development within the framework sites;
- Support any adaptive re-use of former RIC Barracks building; and
- Provides a degree of active travel measures.

These components emerged from the planning/SEA process having regard to both:

1. The environmental effects which were identified by the SEA and are detailed above; and
2. Planning – including social and economic – effects that were also considered.

The 'Selected Alternative' will help to:

- Maximise the provision of land use zoning and the deliverance of associated travel solutions that support moving people from the private car to the more sustainable modes of walking, cycling and using public transport (including associated interactions with air, legally binding reductions in greenhouse gas emissions and human health) and infrastructural and services efficiencies to a greater degree, conflicting with these to a lesser degree;
- Maximise positive effects on the protection and management of the environment beyond the Planning Framework area as a result of providing development within the Planning Framework area, while helping to minimise adverse environmental effects (if unmitigated) arising from development occurring beyond the Planning Framework area; and
- Maximise positive effects on the protection and management of the environment within the Planning Framework area as a result of directing incompatible development away from the most sensitive areas within the Planning Framework area and focusing on directing compact, sustainable development within the proposed envelope of the Planning Framework area, while helping to minimise adverse environmental effects (if unmitigated) arising from development occurring within the Planning Framework area.

Section 5 Summary of Effects arising from the Variation

Table 5.1 summarises the overall environmental effects arising from Variation provisions. The Variation would contribute towards the proper planning and sustainable development of Clondalkin and the wider County and the effects are consistent with those identified by the SEA for the South Dublin County Development Plan 2022-2028. The effects encompass all in-combination/cumulative effects arising from implementation of the Variation. The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Variation are detailed as are residual effects, taking into account mitigation integrated into both the Variation and the South Dublin County Development Plan – see Section 6.

Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Strategic Environmental Objective (SEO) codes are taken from Table 3.1.

Screening for Appropriate Assessment (AA) has been undertaken alongside the making of the Variation. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC).

The conclusion of the Screening for AA for the Variation is that “the Variation is not foreseen to have any likelihood for significant effects on any European sites, alone or in combination with other plans or projects.... Consequently, a Stage Two Appropriate Assessment is not required”.

A Strategic Flood Risk Assessment (SFRA) has been undertaken as part of the preparation of the Variation. Requirements in relation to SFRA are provided under ‘The Planning System and Flood Risk Management Guidelines for Planning Authorities’ (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. The SFRA has informed the provisions of the Variation.

Table 5.1 Overall Findings –Effects arising from the Variation

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the South Dublin County Development Plan and adjacent Development Plans and lower-tier land use plans.		
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served and/or less well-connected lands elsewhere in Clondalkin, the wider County and beyond. Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats. Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna. 	<p>Arising from both construction and operation of development and associated infrastructure:</p> <ul style="list-style-type: none"> Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; Habitat loss, fragmentation and deterioration, including patch size and edge effects; and Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats. 	<ul style="list-style-type: none"> Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. Losses or damage to ecology (these would be in compliance with relevant legislation).
Population and Human Health	<ul style="list-style-type: none"> Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in Clondalkin, the wider County and beyond Contribution towards the protection of human health by facilitating development of lands that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served and/or less well-connected lands elsewhere in Clondalkin, the wider County and beyond. Contribution towards placemaking and improvements to the vitality and vibrancy of Clondalkin, making it more attractive to live in, work in and visit. Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, such as air and water. 	<ul style="list-style-type: none"> Potential adverse effects arising from flood events. Potential interactions if effects arising from environmental vectors. 	<ul style="list-style-type: none"> Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under “Soil”, “Water” and “Air and Climatic Factors” below.
Soil	<ul style="list-style-type: none"> Contribution towards the protection of soils and designated sites of geological heritage by facilitating development of lands that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served and/or less well-connected lands elsewhere in Clondalkin, the wider County and beyond. Contribution towards the protection of the environment from contamination. 	<ul style="list-style-type: none"> Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. Potential for riverbank erosion. 	<ul style="list-style-type: none"> Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. Riverbank erosion will continue to occur naturally over time and is likely to be enhanced by climate change.

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Environmental Component	Environmental Effects, in combination with the wider planning framework		
	Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the South Dublin County Development Plan and adjacent Development Plans and lower-tier land use plans.		
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects
Water	<ul style="list-style-type: none"> • Contribution towards the protection of water by facilitating development of lands that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced and/or less well-connected lands elsewhere in Clondalkin, the wider County and beyond. • Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations. • Contribution towards flood risk management and appropriate drainage. 	<ul style="list-style-type: none"> • Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events. 	<ul style="list-style-type: none"> • Any increased loadings as a result of development to comply with the River Basin Management Plan. • Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the existing County Development Plan and the Variation.
Material Assets	<ul style="list-style-type: none"> • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in Clondalkin, the wider County and beyond. • Contribution towards compliance with national and regional water services and waste management policies. • Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. • Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency. 	<ul style="list-style-type: none"> • Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. 	<ul style="list-style-type: none"> • Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. • Residual wastes to be disposed of in line with higher-level waste management policies. • Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework.

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Environmental Component	Environmental Effects, in combination with the wider planning framework		
	Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the South Dublin County Development Plan and adjacent Development Plans and lower-tier land use plans.		
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects
Air and Climatic Factors	<ul style="list-style-type: none"> Contribution towards climate mitigation and adaptation by facilitating compact development of lands that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in Clondalkin, the wider County and beyond. In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to: <ul style="list-style-type: none"> Sustainable compact growth; Sustainable mobility, including walking, cycling and public transport; Sustainable design, energy efficiency and green infrastructure. 	<ul style="list-style-type: none"> Potential conflict between development under the Variation and aiming to reduce carbon emissions in line with local, national and European environmental objectives. Potential conflicts between transport emissions, including those from cars, and air quality¹⁶. Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors¹⁷. Potential conflicts with climate adaptation measures including those relating to flood risk management. 	<ul style="list-style-type: none"> An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the existing County Development Plan and the Variation, including those relating to sustainable compact growth and sustainable mobility. Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the existing County Development Plan and the Variation to ensure that noise levels at sensitive receptors will be minimised.
Cultural Heritage	<ul style="list-style-type: none"> Contributes towards protection of cultural heritage elsewhere by facilitating development within the Variation area. Contributes towards protection of cultural heritage within the Variation area by facilitating brownfield development and regeneration. 	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities. 	<ul style="list-style-type: none"> Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.
Landscape	<ul style="list-style-type: none"> Contributes towards protection of wider landscape and landscape designations by facilitating development within the Variation area. 	<ul style="list-style-type: none"> Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape. 	<ul style="list-style-type: none"> Landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments that will occur in compliance with the existing County Development Plan's and the Variation's landscape protection measures.

¹⁶ Although road transport interventions would be likely to result in an overall reduction in traffic flows and associated interactions with air, noise and human health, there would be potential for displacement of traffic to lead to localised increases traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels, both within the Variation area and beyond.

¹⁷ Although road transport interventions would be likely to result in an overall reduction in traffic flows and associated interactions with air, noise and human health, there would be potential for displacement of traffic to lead to localised increases traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels, both within the Variation area and beyond.

Section 6 Mitigation and Monitoring Measures

6.1 Mitigation

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Variation. Various environmental sensitivities and issues have been communicated to the Council through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating related recommendations into the Variation, the Council has ensured that both the beneficial environmental effects of implementing the Variation have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through:

- Strategic work undertaken by the Council to ensure evidence-based planning ¹⁸;
- Considering alternatives for the Variation ¹⁹;
- The integration of individual SEA, AA and SFRA provisions into the text of the Variation; and
- The integration of individual provisions into the text of the existing, already in force, Development Plan.

6.2 Monitoring

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified at Table 3.1 and used in the evaluation. Monitoring indicators, targets, sources and remedial action is provided at Table 6.1 overleaf.

¹⁸ In preparing and making the Variation, information relating to various sectors, from different Departments within the Councils and from different bodies and organisations, was gathered and analysed, contributing towards the development of evidence-led provisions. This work included preparing the following documents that are appended to the Variation: Conservation Plan; Architectural Conservation Area character appraisals; and the Local Transport Plan.

¹⁹ Although strategic alternatives in relation to the content of the Plan were significantly limited for the Plan, as part of the Plan preparation/SEA process alternatives for the Plan were considered. These alternatives were assessed by the SEA process and the findings of this assessment informed the selection of alternatives for the Plan, facilitating an informed choice with respect to the type of Plan that was prepared and made.

Table 6.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ²⁰
Biodiversity, Flora and Fauna	BFF	<ul style="list-style-type: none"> Condition of European sites 	<ul style="list-style-type: none"> Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions and to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Confirmation of compliance with Plan provisions relating to the protection of European Sites and sustaining resources 	<ul style="list-style-type: none"> DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years)²¹ DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 6 years)²² Internal review of local land use plans Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		<ul style="list-style-type: none"> Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted 	<ul style="list-style-type: none"> Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions and to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species 	<ul style="list-style-type: none"> Internal review of local land use plans 	<ul style="list-style-type: none"> Review internal systems
		<ul style="list-style-type: none"> SEAs and AAs as relevant for new Council policies, plans, programmes etc. 	<ul style="list-style-type: none"> Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc. 	<ul style="list-style-type: none"> Internal review of new Council policies, plans, programmes etc. under the County Development Plan 	<ul style="list-style-type: none"> Review internal systems
		<ul style="list-style-type: none"> Status of water bodies 	<ul style="list-style-type: none"> Included under Water below 	<ul style="list-style-type: none"> Included under Water below 	<ul style="list-style-type: none"> Included under Water below
		<ul style="list-style-type: none"> Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see County Development Plan Chapter 3 “Natural, Cultural and Built Heritage” 	<ul style="list-style-type: none"> For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see County Development Plan Chapter 3 “Natural, Cultural and Built Heritage” 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Review internal systems
Population and Human Health	PHH	<ul style="list-style-type: none"> Implementation of Plan measures relating to the promotion of economic growth as provided for by County Development Plan Chapter 9 “Economic Development and Employment” 	<ul style="list-style-type: none"> Progress in successfully implementing Plan measures relating to the promotion of economic growth as provided for by County Development Plan Chapter 9 “Economic Development and Employment” 	<ul style="list-style-type: none"> Internal review of progress on implementing Plan objectives 	<ul style="list-style-type: none"> Review internal systems Consultations with DCEE

²⁰ Where remedial action is required, consultations with government agencies (e.g. DCEE, DT, EPA, HSE, NPWS, Regional Assembly, Uisce Éireann) may be undertaken in order to confirm causes of any identified changes in the environment and in order to develop appropriate responses.

²¹ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance/visitor pressure impacts of recreation, amenity and tourism development.

²² Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance/visitor pressure impacts of recreation, amenity and tourism development.

SEA Environmental Report Appendix II: Non-Technical Summary

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ²⁰
		<ul style="list-style-type: none"> Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan 	<ul style="list-style-type: none"> No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan 	<ul style="list-style-type: none"> Review of published information from the Health Service Executive and EPA Internal consultations with the Council's Environment Department 	<ul style="list-style-type: none"> Consultations with the Health Service Executive and EPA
		<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures Progress in successfully implementing Plan measures relating to active travel 	<ul style="list-style-type: none"> CSO data Internal review of progress on implementing Plan objectives 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
		<ul style="list-style-type: none"> Number of spatial plans that include specific green infrastructure mapping 	<ul style="list-style-type: none"> Require all local level land use plans to include specific green infrastructure mapping 	<ul style="list-style-type: none"> Internal review of local land use plans 	<ul style="list-style-type: none"> Review internal systems
Soil (and Land)	S	<ul style="list-style-type: none"> Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets) 	<ul style="list-style-type: none"> As per the revised NPF, to limit the rate of increase land that is sealed or artificialised per year and promote the reversal of this in suitable areas e.g., flood zones, high density areas In accordance with the NPF, deliver at least 30% of all new homes that are targeted in settlements other than the five Cities and their suburbs, within their existing built-up footprints and ensure compact and sequential patterns of growth To map brownfield and infill land parcels 	<ul style="list-style-type: none"> EPA Geoportal Compilation of greenfield and brownfield development for the DHLGH Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
		<ul style="list-style-type: none"> Instances where contaminated material generated from brownfield and infill must be disposed of 	<ul style="list-style-type: none"> Dispose of contaminated material in compliance with EPA guidance and waste management requirements 	<ul style="list-style-type: none"> Internal review of development management / grants of permission where contaminated material must be disposed of 	<ul style="list-style-type: none"> Consultations with the EPA and Development Management
		<ul style="list-style-type: none"> Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission 	<ul style="list-style-type: none"> Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Review internal systems
Water	W	<ul style="list-style-type: none"> Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD 	<ul style="list-style-type: none"> Subject to exemptions provided for by Article 4 of the Water Framework Directive, not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' Implementation of the objectives of the River Basin Management Plan 	<ul style="list-style-type: none"> EPA Monitoring Programme for WFD compliance²³ 	<ul style="list-style-type: none"> Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Uisce Éireann to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.

²³ Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available
CAAS for South Dublin County Council

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Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ²⁰
		<ul style="list-style-type: none"> Number of incompatible developments permitted within flood risk areas 	<ul style="list-style-type: none"> Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	<ul style="list-style-type: none"> Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan 	<ul style="list-style-type: none"> All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures Progress in successfully implementing Plan measures relating to active travel 	<ul style="list-style-type: none"> CSO data Internal review of progress on implementing Plan objectives 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Air	A	<ul style="list-style-type: none"> Proportion of journeys made by private fossil fuel-based car compared to previous levels NO₂ (Nitrogen Dioxide), PM10 (particulate matter with diameter of 10 microns or less) and O₃ (Ozone) as part of Ambient Air Quality Monitoring 	<ul style="list-style-type: none"> Decrease in proportion of journeys made by car compared to previous levels Improvement in Air Quality trends, particularly in relation to transport related emissions Progress in successfully implementing Plan measures relating to sustainable mobility and travel 	<ul style="list-style-type: none"> CSO data EPA Air Quality Monitoring Internal review of progress on implementing Plan objectives 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, Council will coordinate with the Regional Assembly, DHLGH, DCEE and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	C	<ul style="list-style-type: none"> Implementation of Plan measures relating to climate reduction targets 	<ul style="list-style-type: none"> For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Review internal systems
		<ul style="list-style-type: none"> A competitive, low-carbon, climate-resilient and environmentally sustainable economy 	<ul style="list-style-type: none"> Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050 	<ul style="list-style-type: none"> Confirmation of progress in implementing of South Dublin County Council's Climate Change Adaptation Strategy 2019-2024 and Climate Action Plan 2024-2029 	<ul style="list-style-type: none"> Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		<ul style="list-style-type: none"> Share of renewable energy in transport 	<ul style="list-style-type: none"> Contribute towards the National Energy and Climate Plan 2021-2030 sectoral target for transport (RES-T) of 14%, by 2030 (this 	<ul style="list-style-type: none"> EPA Greenhouse Gas Emissions reporting 	

SEA Environmental Report Appendix II: Non-Technical Summary

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ²⁰		
			may be increased following a provisional European agreement on 30 March 2023 for a binding overall RES target of at least 42.5% by 2030)	<ul style="list-style-type: none"> Internal review of implementation of Plan provisions relating to renewable energy in transport, including facilitating the development of electricity charging and transmission infrastructure 			
		<ul style="list-style-type: none"> Greenhouse gas emissions 	<ul style="list-style-type: none"> Contribute towards the target of aggregate reduction in carbon dioxide (CO₂) emissions of at least 51% (compared to 1990 levels) by 2030 (helping to set Ireland on a path to reach net-zero emissions by 2050) 				
		<ul style="list-style-type: none"> Energy consumption, the uptake of renewable options and solid fuels for residential heating 	<ul style="list-style-type: none"> To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating 				
		<ul style="list-style-type: none"> Proportion of journeys made by private fossil fuel-based car compared to previous levels 	<ul style="list-style-type: none"> Decrease in the proportion of journeys made by residents of the settlements using private fossil fuel-based car compared to previous levels Progress in successfully implementing Plan measures relating to sustainable mobility and travel 			<ul style="list-style-type: none"> CSO data Internal review of progress on implementing Plan objectives 	<ul style="list-style-type: none"> Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures Progress in successfully implementing Plan measures relating to active travel 			<ul style="list-style-type: none"> CSO data Internal review of progress on implementing Plan objectives 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Cultural Heritage	CH	<ul style="list-style-type: none"> Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Council will work with Regional Assembly, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation. 		
		<ul style="list-style-type: none"> Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan 	<ul style="list-style-type: none"> Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 			
Landscape	L	<ul style="list-style-type: none"> Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 	<ul style="list-style-type: none"> Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re-examine Plan provisions and the effectiveness of their implementation 		