

SEA ENVIRONMENTAL REPORT APPENDIX II – NON-TECHNICAL SUMMARY

FOR

VARIATION No. 4

TO THE

**WICKLOW COUNTY DEVELOPMENT PLAN
2022-2028
(AS VARIED)**

for: Wicklow County Council



by: CAAS Ltd.



FEBRUARY 2026

Table of Contents

Section 1	Introduction and Terms of Reference	1
Section 2	The Variation	3
2.1	Introduction and Content.....	3
2.2	Variation Format.....	3
2.3	Development Strategy and Objectives.....	3
2.4	Strategic work undertaken by the Council to ensure evidence-based planning	4
2.5	Relationship with other relevant Plans and Programmes	4
Section 3	The Environmental Baseline.....	6
3.1	Introduction	6
3.2	Likely Evolution of the Environment in the Absence of a Variation	6
3.3	Biodiversity and Flora and Fauna	6
3.4	Population and Human Health	7
3.5	Soil.....	8
3.6	Water	9
3.7	Air and Climatic Factors	14
3.8	Material Assets	15
3.9	Cultural Heritage.....	17
3.10	Landscape.....	18
3.11	Strategic Environmental Objectives.....	19
Section 4	Alternatives	21
4.1	Introduction	21
4.2	Limitations in Available Alternatives	21
4.3	Alternatives Description and Assessment Summary	21
4.4	Selected Alternative for the Variation	26
Section 5	Summary of Effects arising from the Variation.....	29
Section 6	Mitigation and Monitoring Measures	37
6.1	Mitigation	37
6.2	Monitoring.....	37

Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report for Variation No. 4 to the Wicklow County Development Plan 2022-2028 (as varied). 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. 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 Council's and the public's guide to what are generally the best areas for development in the Local Planning Framework area.

SEA enables the Council to direct development towards robust, well-serviced and connected areas in the 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 the Local Planning Framework area and beyond.

SEA provides greater certainty to the public and to developers. 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.

Most of the Local Planning Framework area is identified as having low to moderate levels of sensitivity. The most sensitive areas within and in close proximity to the Local Planning Framework area include:

- Various locations and areas within the existing built-up footprint of Greystones-Delgany and Kilcoole, on account of cultural heritage designations, including entries to the Record of Monuments and Places, Entries to the Record of Protected Structures and Architectural Conservation Areas;
- Rivers, streams and adjacent areas, on account of water status, ecological sensitivities and elevated levels of flood risk;
- Kindlestown Hill, on account of archaeological, landscape/visual and geological sensitivities, landslide susceptibility and extreme groundwater vulnerability;
- The coastline and coastal areas (including Bray Head and Kilcoole Marsh), on account of ecological sensitivities, landscape/visual sensitivities, geological sensitivities, bathing areas, elevated levels of flood risk and landslide susceptibility; and
- The Glen of the Downs, to the west of Delgany, on account of ecological sensitivities, landscape/visual sensitivities, geological sensitivities and landslide susceptibility.

The Variation's Local Planning Framework directs incompatible development away from the most sensitive areas in the Local Planning Framework area and focuses on directing compact, sustainable development within Greystones-Delgany and Kilcoole. 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 Greystones-Delgany and Kilcoole to become a more desirable place to live, work and visit.

Compatible sustainable development in the Local Planning Framework area's 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 Variation that contributes towards the protection and management of environmental sensitivities. It also helped to identify wherever potential conflicts between the Variation 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

The Variation has been prepared and made pursuant to Section 13 of the Planning and Development Act 2000 (as amended).

The purpose of the Variation is to integrate the draft and final Greystones-Delgany and Kilcoole Local Planning Framework into the Wicklow County Development Plan 2022-2028 (as varied) and to ensure consistency of the draft and final Greystones-Delgany and Kilcoole Local Planning Framework with the Development Plan.

The Local Planning Framework will put in place a land use framework that will guide the future sustainable development of the Greystones-Delgany and Kilcoole area. The Local Planning Framework, in conjunction with the County Development Plan, will inform and manage the future development of the area.

2.2 Variation Format

The Variation is set out as follows:

- Part A sets out changes to Volume 1 of the Wicklow County Development Plan 2022-2028 to ensure consistency of the draft and final Greystones-Delgany and Kilcoole Local Planning Framework (LPF) with the County Development Plan 2022-2028.
- Part B sets out changes to Volume 2 of the Wicklow County Development Plan 2022-2028: to ensure consistency of the draft and final Greystones-Delgany and Kilcoole Local Planning Framework with the County Development Plan 2022-2028; and to add the Greystones-Delgany and Kilcoole Local Planning Framework to Volume 2. The Local Planning Framework comprises a written statement and a series of maps that provide a graphic representation of the content of the written text. Where there is any discrepancy between the text and maps, the text shall take precedence.

The Variation is accompanied by a number of appendices, including this SEA Environmental Report. All of these documents have informed the crafting of the Variation.

2.3 Development Strategy and Objectives

The Local Planning Framework sets out a Development Strategy as follows:

1. The area shall be a high quality, attractive and sustainable place to live, visit and conduct business. The combined area shall maximise the potential opportunities associated with its strategic location at the edge of the Dublin Metropolitan Area.
2. To build on the dynamism between the settlements of Greystones-Delgany and Kilcoole, so that each settlement develops in a mutually dependent and complementary manner as a prosperous and growing community. Each settlement shall have a distinct identity and shall perform a function in sustaining its own local community and in providing enhanced opportunities for the creation of new local enterprise.
3. The development strategy for Greystones-Delgany will be one primarily of consolidation and infill, with no further settlement expansion beyond the previous LAP boundary; the development strategy for Kilcoole will focus on the lands to the east of the Main Street in the Lott Lane area, in order to maximise use of the existing road network, to improve the eastern route around the town centre and to maximise proximity to Kilcoole train station¹.
4. To maintain an agricultural greenbelt between the two settlements.
5. To focus on the dense, mixed use regeneration and development of town and village centre infill sites (particularly vacant or under-utilised sites) that are currently served or proximate to public transport services, as a priority above edge of centre or peripheral, greenfield locations.
6. Priority locations for new development will be locations served² by existing or planned high capacity public transport services; no lands will be identified as 'Priority 1 New Residential' designation if not currently served by existing or planned high capacity public transport service.

¹ The growth of Kilcoole to the east will however be constrained by the need to ensure no significant adverse impacts arise from new development on the integrity of 'The Murrrough' European Site.

² That is, within 1km of DART or 500m walking distance of an existing or planned high frequency bus service.

7. To utilise to the maximum extent the existing road network rather than one that is dependent on the construction of new distributor roads through greenfield lands.
8. To provide for new community, educational and recreational opportunities on serviced / serviceable lands in built up areas principally and greenfield lands at appropriate locations where necessary that are connected to local residential areas with walking, cycling and public transport facilities.
9. To support the following schemes in Greystones – Delgany: (a) Chapel Road Pedestrian and Cycle Infrastructure Improvement Scheme; (b) Delgany town centre public realm improvements providing for pedestrian / cyclist priority, (c) bus services on Chapel Road, (d) the provision of new / improved footpaths and cycleways on all regional roads and local distributor roads.
10. To support the following schemes in Kilcoole: (a) Kilcoole Main Street accessibility and public realm improvements providing for pedestrian / cyclist priority (b) pedestrian and cycling infrastructure from Kilcoole Main Street to Kilcoole train station, (c) the delivery of an improved distributor route around Kilcoole to 'by-pass' Main Street via use of Lott Lane, Sea Road and the 'Holywell Avenue' to the south of Sea Road as far as the regional road at CCA (d) the provision of new / improved footpaths and cycleways on all regional roads and local distributor roads (e) improvements in walking and cycling infrastructure between Kilcoole and Charlesland, including if feasible an alternative active travel route to the east of the R761, where space is limited for improvements.
11. To ensure that no development is facilitated that would give rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects on the basis of this LPF³.
12. To ensure that development proposals, contribute as appropriate towards the protection and where possible enhancement of the ecological coherence of the European Site network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the EU Habitats directive. All projects and plans arising from this LPF will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.
13. To support the Wicklow County Council Climate Action Plan 2024-2029.

The Development Strategy is accompanied by other provisions including Objectives under the following headings:

- Town Centre Regeneration
- Residential Development
- Economic Development
- Tourism Development
- Community Development
- Heritage, Biodiversity and Green Infrastructure
- Infrastructure
- Zoning
- Specific Local Objectives

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 Council 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 Local Planning Framework: a Green Infrastructure Study; a Social Infrastructure Audit; and an Infrastructure Delivery Schedule with associated details on phasing and implementation.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into individual Local Planning Framework 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 Variation 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

³ Except as provided for in Article 6(4) of the Habitats Directive, viz. there must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) adequate compensatory measures in place.

will, in turn, guide lower-level strategic actions. These documents have been subject to their own environmental assessment processes, as relevant.

The Revised National Planning Framework sets out Ireland's planning policy direction to 2040. The National Planning Framework is to be implemented through Regional Spatial and Economic Strategies and lower tier Development Plans and Local 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 Wicklow County Development Plan, which sets out the overarching development strategy for the County.

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 the Local Planning Framework area 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 the Local Planning Framework area 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 the Local Planning Framework area.

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 the Local Planning Framework area include:

- **Designated European sites adjoining or in close proximity to the Local Planning Framework boundary:**
 - Bray Head Special Area of Conservation (located to the north of Greystones);
 - The Murrough Wetlands Special Area of Conservation and The Murrough Special Protection Area (located to the south-east of Kilcoole); and
 - Glen of the Downs Special Area of Conservation (located to the west of Delgany).
- **Non-statutorily proposed sites:**
 - Bray Head proposed Natural Heritage Area (located within the northern parts of Greystones, within/adjoining the Local Planning Framework boundary);
 - The Murrough proposed Natural Heritage Area (located to the east of Kilcoole, within/adjoining the Local Planning Framework boundary); and
 - Glen of the Downs proposed Natural Heritage Area (located to the west of Delgany).
- **Locally important, non-designated habitats within and surrounding the Local Planning Framework area⁴,** including **coastal, transitional and marine areas**, various woodlands (including at Kindlestown Hill to the north of Delgany), mature trees, parks, gardens, hedgerows, old buildings/stone walls and lands used for agriculture within and surrounding the Local Planning Framework area, providing habitats for flora and fauna and facilitating linkages and corridors to the surrounding countryside for the wildlife; and
- **Aquatic and riverine ecology** associated with rivers and streams and their tributaries and riparian buffer zones, including the **including the Three Trout Stream in Delgany, the Templecarrig Stream in north Greystones and St. Patrick's River (also known as Knickitty River) in Kilcoole**. The habitats associated with the Three Trout Stream support a variety of species such as fish (including Sea Trout and Common Eel), Common Frog, birds (including Dipper and Heron) and trees (including Oak, Birch, Holly and Willow).

Special Areas of Conservation⁵ (SACs) and Special Protection Areas⁶ (SPAs) within 15 km of the Local Planning Framework area are mapped at Figure 3.1. Bird species listed on Annex I to the Birds Directive

⁴ There is a specific zoning objective in the Wicklow County Development Plan (as varied): *'To preserve lands at 'The Rocks', Kilcoole in its existing state; to allow no development of these lands; to protect the lands as a natural habitat and biodiversity area; to protect the open nature and landscape quality of the lands.'*

⁵ 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.

⁶ 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.

are likely to use areas outside of areas designated as Special Protection Areas e.g. at Charlesland golf course.

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 2018⁷ mapping (shown on Figure 3.2) identifies the land cover of central parts of the Local Planning Framework area as urban fabric with adjacent areas of sport and leisure activities, construction sites, beaches, sand dunes and salt marshes. The surrounding lands are identified as pastures, non-irrigated arable land, broad-leaved forest, coniferous forests and land principally occupied by agriculture with significant areas of natural vegetation. Categories from CORINE mapping that may indicate areas with the potential for Annex I habitats partially situated within and adjacent to the Local Planning Framework area comprise beach, sand and dunes, and broad leaved forest.

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 Local Planning Framework 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 22,009 persons within the CSO boundaries of Greystones-Delgany and 4,569 persons within the CSO boundary of Kilcoole. The Core Strategy in Wicklow County Development Plan 2022-2028 (as varied) provides the following population growth targets (2016-2031): for Greystones-Delgany, 3,941 persons; and for Kilcoole, 602 persons.

Greystones-Delgany is identified as 'Self-Sustaining Growth Town' (Level 3) in the 'Dublin Metropolitan Area' in the County settlement hierarchy. Self-Sustaining Growth Towns are towns that contain a reasonable level of jobs and services which cater for the people of its service catchment. These may include sub-county market towns and commuter towns with good transport links, which have capacity for continued commensurate growth to become more self-sustaining. These towns are regionally important local drivers providing a range of functions for their resident population and their surrounding catchments including housing, local employment, services, retail and leisure opportunities. Kilcoole is identified as 'Self Sustaining Town' (Level 4) in the 'Core Region' in the County settlement hierarchy. Self-Sustaining Towns are towns that require contained growth, focusing on driving investment in services, employment growth and infrastructure whilst balancing housing delivery. There is a strong emphasis in the hierarchy on aligning population growth with employment growth to make these towns more self-sustaining and capable of accommodating additional growth in the future.⁸

The population provided for in the Local Planning Framework area 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

⁷ 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.

⁸ Wicklow County Development Plan 2022-2028 (as varied)

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 the Local Planning Framework area with radon levels above the reference level is within the normal range experienced in other locations across the country.

Parts of the Local Planning Framework area 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 the Local Planning Framework area.

3.5 Soil

Main soil types surrounding the built-up areas⁹ of Greystones-Delgany and Kilcoole are: brown earths (well-drained mineral soils, associated with high levels of natural fertility); brown podzolics (dark brown humus-mineral soil covered with a thin mat of partly decayed leaves); groundwater gleys (wetland soils with slowly permeable horizons resulting in seasonal waterlogging); and alluvial soils (associated with alluvial clay, silt or sand river deposits).

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 County Wicklow was completed in 2014, which identified 62 CGSs in County Wicklow. There are five designated County Geological Sites adjacent or partially within the Local Planning Framework boundary: Greystones Beach CGS (Site Code: WW036); Greystones (Appinite) CGS (Site Code: WW035); Wicklow-Greystones Coast CGS (Site Code: WW060); Glen of the Downs CGS (Site Code: WW023); and Bray Head CGS (Site Code: WW013).

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 Geological Survey Ireland have identified the Local Planning Framework area as having mainly low, low (inferred), moderately low and moderately high levels with high levels of landslide susceptibility occurring to the north of Greystones along the coastline, to the west of Delgany at the Glen of the Downs and to the north of Delgany/west of Greystones at Kindlestown Hill.

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, semi-urban and port areas across the country, there is potential for contamination at sites within the Local Planning Framework area, especially where land uses occurred in the past, in the absence of environmental protection legislation.

Protection from coastal erosion and flooding is becoming a prominent issue for many coastal cities and towns across Ireland. Rising sea levels and increased storm events present a concern for coastal areas. Coastal Vulnerability Index mapping for the County is available from the GSI that identifies the relative susceptibility of the Irish coast to adverse impacts of sea-level rise. Vulnerability ranges from low (including certain stretches of the coast between Bray and Greystones and south of Wicklow Town) to moderate (including from Greystones to Newcastle) to high (including from Newcastle to Wicklow Town). Coastal erosion concerns are arising in the Local Planning Framework area with regard to the area between Greystones north beach and Bray Head, which has damaged the Cliff Walk, and with respect to the security of the railway line south of Greystones. The key source of cliff damage arising between Bray Head

⁹ 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.

and Greystones north beach is surface water run-off; investigations are underway as to the best way in which to manage existing water flows in the area.

Existing Problems

Legislative objectives governing soil were not identified as being conflicted with, however issues with respect to coastal erosion exist – see above.

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 Greystones-Delgany and Kilcoole is channelled by several rivers, streams and their tributaries flowing from west to east through the Local Planning Framework area and towards the Irish Sea. Significant surface water bodies include¹⁰ the Three Trouts Stream that flows through Delgany, the Kilcoole Stream¹¹ that flows through Kilcoole and the Greystones Stream¹² that flows through north Greystones.

The current WFD (2016-2021) status¹³ of the rivers and streams draining the Local Planning Framework area is *good* (identified by the EPA as: 'Kilruddery_Deerpark_010'; 'Three Trouts Stream_010'; 'Greystones_Stream_010'¹⁴; and 'Newtownmountkennedy_10'); *moderate* (identified by the EPA as: 'Ballyronan_Stream_010'; and 'Newtownmountkennedy_10'); and *poor* (identified by the EPA as 'Kilcoole Stream_010'¹⁵).

The current WFD status (2016-2021) of the coastal waterbody adjacent to the Local Planning Framework area (identified by the EPA as 'Southwestern Irish Sea – Killiney Bay') is *high*. The current WFD status (2016-2021) of the transitional waterbody within and adjacent to the Local Planning Framework area (identified by the EPA as 'Kilcoole Marsh') is *moderate*. Figure 3.3 illustrates the WFD surface water status within and surrounding the Local Planning Framework area.

The WFD status (2016-2021) of groundwater underlying the Local Planning Framework area is currently identified as being of *good status*, meeting the objectives of the WFD.

The most recent available data from the EPA for 2023 shows that locations of designated bathing waters at Greystones are classified as *excellent*.

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 PL2/2014. Flood risk management and drainage provisions are already in force through the Wicklow County Development Plan 2022-2028 (as varied) and related provisions have been integrated into the LPF. In addition, land use zoning contained within the Local Planning Framework has been informed by the SFRA process and associated delineation of flood risk zones. Historical flooding is documented by the Office of Public Works. Recurring flood events are identified within the Local Planning Framework area. Predictive flood risk mapping is also available from the Office of Public Works. The most significant source of flood risk within the Local Planning Framework area is from fluvial (from rivers and streams) and coastal sources. There are other sources of flooding present including from pluvial (rainwater) and from surface drainage systems sources.

¹⁰ The naming of water bodies in this report aligns with those used by the Environmental Protection Agency, who are responsible for monitoring the quality of water bodies in Ireland. Alternative names used locally are also provided in some instances, added as footnotes to the Environmental Protection Agency names.

¹¹ also referred to as the St. Patrick's River and the Knickitty River

¹² also referred to as the Templecarrig Stream

¹³ As per EPA's WFD Status 2016-2021 classification (<https://gis.epa.ie/EPAMaps/>).

¹⁴ also referred to as the Templecarrig Stream

¹⁵ also referred to as the St. Patrick's River and the Knickitty River

Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, the recorded status of certain surface water bodies will need improvement in order to comply with the objectives of the WFD. The Local Planning Framework 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 the Local Planning Framework area. 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.

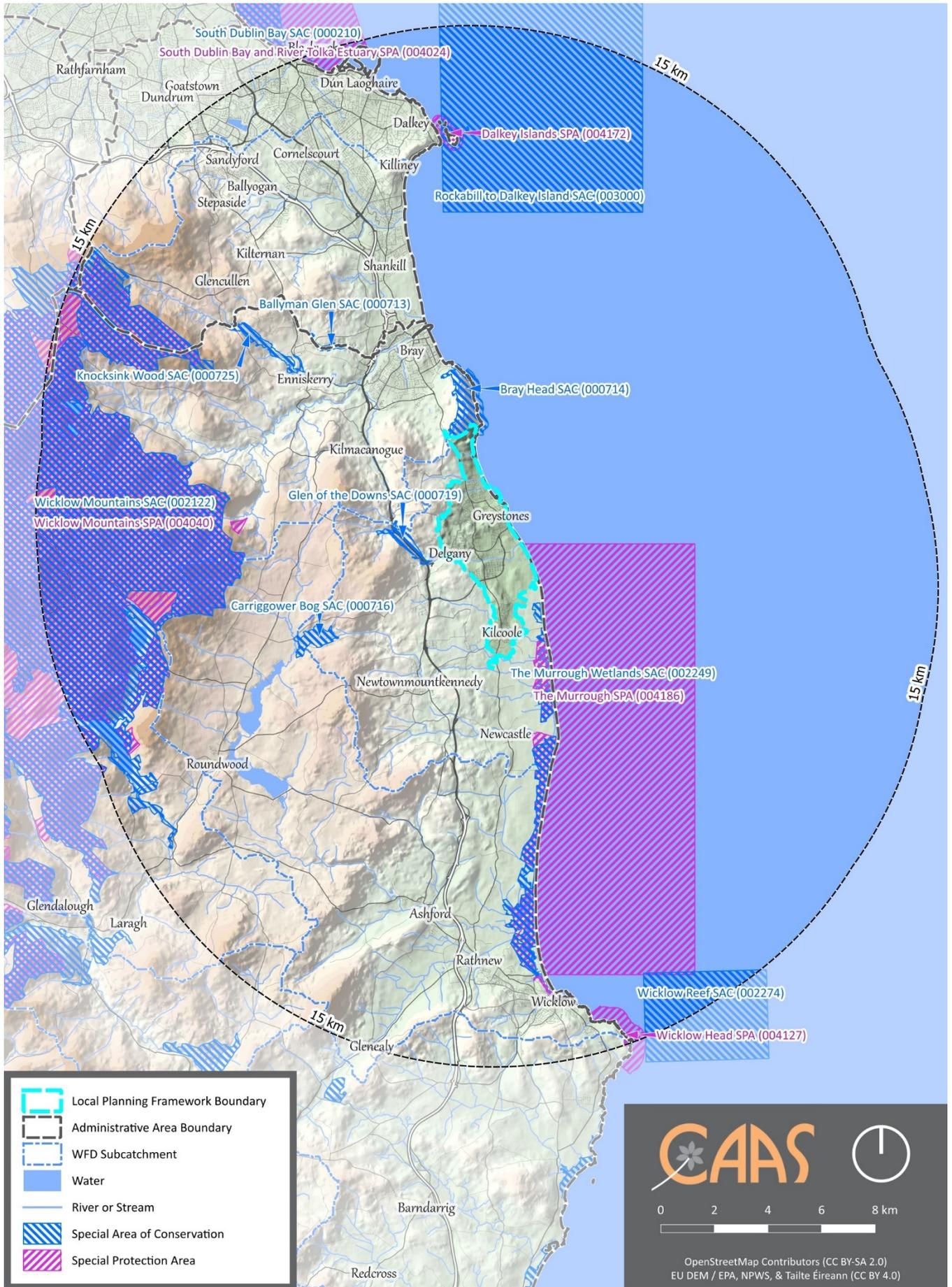


Figure 3.1 European Sites within and within 15 km buffer of the Local Planning Framework area

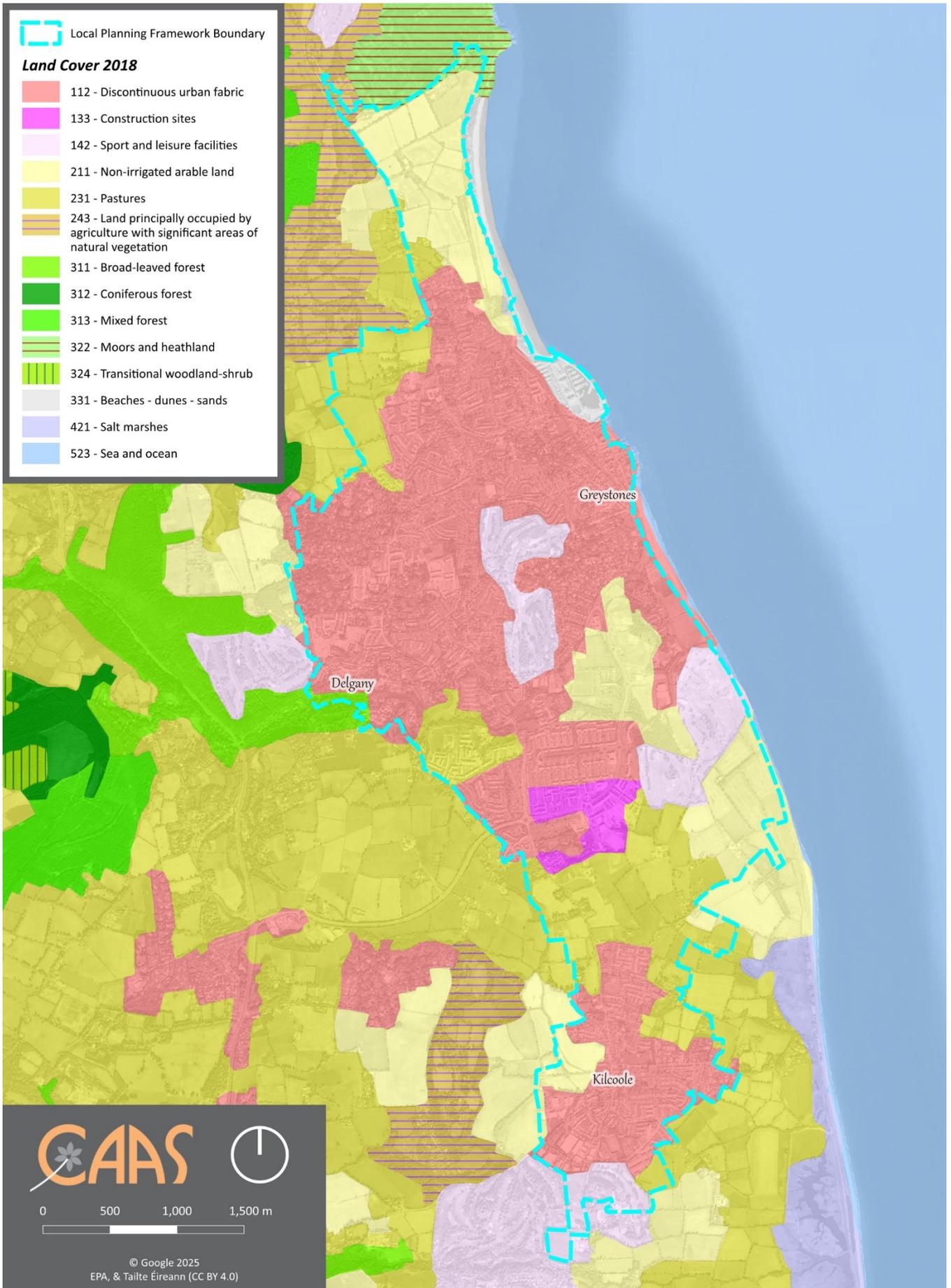


Figure 3.2 CORINE Land Cover Mapping 2018

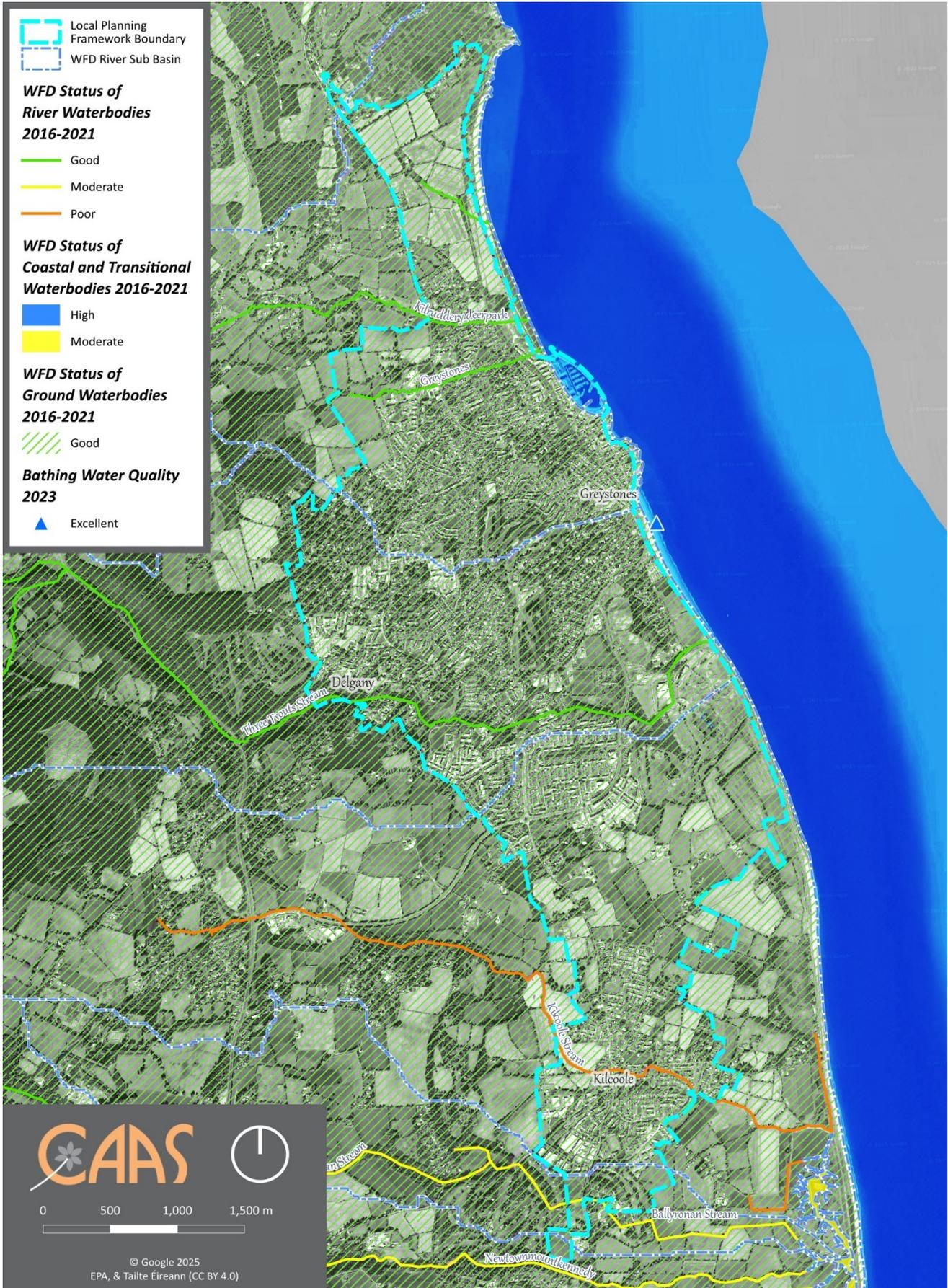


Figure 3.3 Surface Water Status (2016-2021)¹⁶

¹⁶ The naming of water bodies on this map aligns with those used by the Environmental Protection Agency, who are responsible for monitoring the quality of water bodies in Ireland. Alternative names used locally include the following: the Kilcoole Stream (see map above) is also referred as the St. Patrick's River and the Knickitty River; and the Greystones Stream (see map above) is also referred as the Templecarrig Stream.

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%.

The Wicklow Climate Action Plan 2024-2029 provides information on the breakdown of emissions from County Wicklow:

- In 2018, the baseline year, Ireland's national greenhouse gas emissions were approximately 70,235 ktonnes CO₂ eq.
- Emissions within the Wicklow County Council area are estimated to have been 1,101 ktonnes CO₂ eq in 2018.
- Of total emission in County Wicklow, the agriculture sector accounted for 40%, the residential sector for 25%, the transport sector for 24%, the Commercial and Public Sector for 9%, the Municipal sector for 1% and the Waste sector for 1%.

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 2024 is the second 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 2023, 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.

The Climate Action Plan 2025 is the third statutory annual update to the Climate Action Plan. Climate Action Plan 2025 lays out a roadmap of actions that are intended to lead to meeting the national climate objective of pursuing and achieving, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. It aligns with legally binding economy-wide carbon budgets and sectoral emissions ceilings. Climate Action Plan 2025 builds upon the Climate Action Plan 2024 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and achieve climate neutrality by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.

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 Wicklow Climate Action Plan 2024-2029 will contribute towards addressing the mitigation of greenhouse gas emissions, climate change adaptation, and strengthening the alignment between national climate policy and the delivery of local climate action. The local objectives of Wicklow County Council's Climate Action Plan 2024-2029 are grouped under five thematic areas as follows:

- Governance and Leadership
- Built Environment and Transport

- Natural Environment and Green Infrastructure
- Communities: Resilience and Transition
- Sustainability and Resource Management

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 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.

Woodland

Woodlands, such as that at Kindlestown Hill to the north of Delgany, 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.

Coastline

The County's coastline, including that which is within and adjacent to the Local Planning Framework area, is amongst the most sensitive and valuable resources in County Wicklow, in terms of natural and cultural heritage, scenic beauty and recreation. The coast is also an important economic resource - particularly for the fishing, aquaculture, leisure and tourism industries.

Transport

Greystones-Delgany and Kilcoole are strategically located near the M/N11, which provides transport links to Dublin, Wicklow, Arklow, Wexford, Rosslare Europort and the rest of the County. The M/N11 also provides links to the M50 and other motorways throughout the country. The Local Planning Framework area is served by the Dublin Southern Commuter DART line and the Dublin Connolly-Rosslare Europort train line with daily train routes. In addition, bus services are provided by Dublin Bus with daily services to Blackrock, Bray, Newcastle, Dublin and Wicklow. National, regional and local roads provide vital links between the Local Planning Framework area and retail, service and employment centres throughout the County and to adjoining counties.

Waste Water

Uisce Éireann, working in partnership with Wicklow County Council, is making investments to undertake essential upgrade works to waste 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 Local Planning Framework area is served by two Wastewater Treatment Plants (WWTPs): one at Woodlands, Greystones; and one at Cooldross, Kilcoole.

The Greystones WWTP (Registration No. D0010-01) has a design capacity of 40,000 Population Equivalent (PE), with current load of 26,712 PE and, as indicated by Uisce Éireann, has spare capacity available.¹⁷ The Greystones WWTP is currently fully compliant with the Emission Limit Values (ELVs) set in the Wastewater Discharge Licence in the most recent available Annual Environmental Report 2023.¹⁸

The Kilcoole WWTP (Registration No. D0087-01) has a design capacity of 4,000 Population Equivalent (PE), with current load of 1,955 PE and, as indicated by Uisce Éireann, has spare capacity available.¹⁹ The Kilcoole WWTP is currently fully compliant with the Emission Limit Values (ELVs) set in the Wastewater Discharge Licence in the most recent available Annual Environmental Report 2022.²⁰ Notwithstanding this, the EPA has identified the plant on its Priority Area List²¹, in order to further contribute to the protection of water quality, with an upgrade to the plant proposed to be completed by 2030.

Compliance with ELVs prescribed in the Discharge licences does not necessarily protect the receiving water body from deteriorating water quality. The Water Framework Directive status (2016-2021) of the the Kilcoole Stream, both upstream and downstream of Kilcoole, is identified as being poor, not high or good as is the objective of the Directive. As identified, the stream is at risk of not meeting the WFD's objectives due to damage caused by significant pressures related to urban wastewater pressures.

¹⁷ Uisce Éireann: Settlements with Waste Water Discharge Authorisations - *Wastewater Treatment Capacity Register*. The register provides an indication of available wastewater treatment capacity based on loads received in 2021 and available treatment plan capacity now or by completion of a project by 2024 (where relevant). Available at: <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/wicklow> (Published in June 2023).

¹⁸ https://www.water.ie/sites/default/files/docs/aers/2023/D0010-01_2023_AER.pdf

¹⁹ Uisce Éireann: Settlements with Waste Water Discharge Authorisations - *Wastewater Treatment Capacity Register*. The register provides an indication of available wastewater treatment capacity based on loads received in 2021 and available treatment plan capacity now or by completion of a project by 2024 (where relevant). Available at: <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/wicklow> (Published in June 2023).

²⁰ https://www.water.ie/sites/default/files/docs/aers/2022/D0087-01_2022_AER.pdf

²¹ <https://www.epa.ie/publications/compliance--enforcement/waste-water/list-of-priority-urban-areas.php>

Water Supply

Uisce Éireann is responsible for providing and maintaining adequate public water supply infrastructure throughout County Wicklow. Greystones-Delgany and Kilcoole is located within the Greater Dublin Area Water Resource Zone²² and, as identified by Uisce Éireann, there is capacity available to meet targeted population growth by 2032, although an improvement in level of service is required.²³

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 Local Planning Framework 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 a significant number of 'Recorded Monuments' within the Local Planning Framework area, reflecting a long history of settlement. Key concentrations are located at Rathdown, Charlesland and Kilcoole and include three National Monuments in State Care: Kilcoole Church; Kindlestown Castle; and St. Mary's Church. There is no Area of Archaeological Significance or Potential within the Local Planning Framework boundary, however an Area of Archaeological Significance and Potential is located at Killickabawn, Kilpeddar, to the south-west of Delgany.

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 number of entries in the RPS within the Local Planning Framework area, as set out in Appendix 4 of Wicklow County Development Plan 2022-2028, (as varied), including: Kindlestown Castle; Old Graveyard, Delgany; Holy Faith Convent, Kilcoole; and the Cell of St. Crispin's Ruined Church, Greystones. Clusters of architectural heritage are indicated within the town's centres. There is a particular concentration of protected structures in and around Delgany village and Greystones town centre and harbour. Having regard to Kilcoole's historical development and more rural nature, there are fewer entries, but this does not signify that the character and vernacular buildings of Kilcoole are less worthy of protection. Many of the Protected Structures are located within central parts of the town centres and within the Architectural Conservation Area (ACA).

An 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 six ACAs designated within the Local Planning Framework area:

- Church Road;
- Killincarrig Village;
- The Burnaby;
- Blacklion;
- Greystones Harbour; and
- Delgany village centre.

²² 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.

²³This may take the form of leakage reduction and/or capital investment to maintain/improve levels of service as the demand increases. Proposed solutions will be developed and prioritised through the National Water Resources Plan and investment planning process. Source: <https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/wicklow/> (Published in June 2023).

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.

3.10 Landscape

The Local Planning Framework area is located between the Wicklow Mountains and the Irish Sea. Greystones is a coastal settlement, enclosed by the backdrop of Bray Head to the north, by the Little Sugar Loaf to the north-west and by the rolling wooded slopes of Bellevue Demesne and Kindlestown Wood to the west. Delgany is situated to the south-west of Greystones, to the south of Kindlestown's wooded slopes. Delgany Golf Club is situated between the village and the N11 National Primary Road.

Kilcoole is situated c. 5 km south of Greystones, surrounded by agricultural lands on all sides, with the coast and associated wetlands located c. 1 km to the east.

The Local Planning Framework area is located within the "Urban Area", "Corridor Area East" and "Coastal Areas AONB" Landscape Categories. Other landscape designations within the Local Planning Framework area include Key Views and Prospects. The Local Planning Framework area encompasses many sites and vantage points from which views over areas of great natural beauty, local landmarks, historic landscapes may be obtained. Prospects are prominent landscapes or areas of special amenity value or special interest which are visible from the surrounding area. The Key Views and Prospects identified in the County Development Plan must be considered when assessing planning applications.

The Local Planning Framework contains an objective for the protection of certain views and prospects within the Greystones-Delgany and Kilcoole area, including those along the coast.

A Special Amenity Area Order is designed to protect areas that are of particularly high amenity value, which are sensitive to intense development pressure and which cannot be adequately protected by existing planning controls. A Special Amenity Area Order is designated at Bray Head, between Bray and Greystones, adjacent to the Local Planning Framework boundary. The coastline within the Local Planning Framework area is also designated as a part of the Coastal Areas of Outstanding Natural Beauty in County Wicklow.

Existing Problems

New developments have resulted in changes to the visual appearance of lands within the Local Planning Framework area 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 the Local Planning Framework area 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	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul style="list-style-type: none"> To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function Safeguard national, regional and local designated sites and supporting features 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 To protect, maintain and conserve natural capital
Population and Human Health	PHH	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	<ul style="list-style-type: none"> Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management Ensure that existing population and planned growth is matched with the required public infrastructure and the required services Safeguard citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	S	Ensure the long-term sustainable management of land	<ul style="list-style-type: none"> Protect soils against pollution, and prevent degradation of the soil resource Promote the sustainable use of infill and brownfield sites over the use of greenfield Safeguard areas of prime agricultural land and designated geological sites
Water	W	Protection, improvement and sustainable management of the water resource	<ul style="list-style-type: none"> Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion, particularly coastal areas Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	MA	Sustainable and efficient use of natural resources	<ul style="list-style-type: none"> Optimise existing infrastructure and provide new infrastructure to match population distribution proposals - this includes transport infrastructure Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels Promote the circular economy, reduce waste, and increase energy efficiencies Ensure there is adequate sewerage and drainage infrastructure in place to support new development Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart-buildings, cities and grids

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<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 • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health – Air Quality Directive • Significantly decrease noise pollution and move closer to WHO recommended levels
Climatic Factors	C	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul style="list-style-type: none"> • To minimise emissions of greenhouse gasses • Integrate sustainable design solutions into infrastructure (e.g. energy efficient buildings; green infrastructure) • Contribute towards the reduction of greenhouse gas emissions in line with national targets • 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	CH	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	L	Protect and enhance the landscape character	To implement the Development Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

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. Five alternatives for the Variation are identified, focused on the Variation's Local Planning Framework for the Greystones-Delgany and Kilcoole area.

4.2 Limitations in Available Alternatives

The alternatives available for the Variation are significantly limited by the provisions of higher-level planning objectives, which are not wholly consistent with each other, including those of the National Planning Framework, the Eastern and Midlands Regional Spatial and Economic Strategy, Ministerial Guidelines and the County Plan. These documents set out various requirements for the content of the Variation, including on topics such as population, land use zoning and proper planning and sustainable development.

4.3 Alternatives Description and Assessment Summary

An overall comparative assessment of the alternatives against Strategic Environmental Objectives (see Table 3.1 in subsection 3.11) is provided on Table 4.1. The basis of this assessment is provided below.

4.3.1 Alternative 1: Maximum Environmental Protection

By limiting development within parts of the Local Planning Framework area, including those that are most sensitive to development, this alternative would reduce the potential for adverse environmental effects to occur from development within the Local Planning Framework area²⁴ (although this potential would remain, albeit to a reduced degree) and benefit the protection and management of following environmental components within the Local Planning Framework area²⁵:

- Biodiversity and flora and fauna (including through application of a buffer around designated sites, the protection of all mature trees and hedgerows and zoning Charlesland for Natural Areas);
- Population and human health (limiting development in certain locations would reduce potential for interactions with human health);
- Soil (as a result of limiting greenfield development in certain locations and maximising the protection of County Geological Sites);
- Air (limits in increases in traffic as a result of limiting development in certain locations)
- Water (including as a result of limiting development in certain locations and zoning all lands within 50m of watercourses for Natural Areas only);
- Cultural heritage (through restricting additional development to Protected Structures and restricting development at all designated archaeological sites); and
- Landscape (including as a result of protecting views and prospects with restricted development within the view/ prospect and zoning Charlesland for Natural Areas).

This alternative would allow for development targets to be met within the Local Planning Framework area, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of the Local Planning Framework area, in areas that are

²⁴ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

²⁵ See significant positive environmental effects, likely to occur: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

potentially more sensitive, less well-serviced and less-well connected²⁶. As a result, the protection and management of environmental components beyond the Local Planning Framework area would be benefited²⁷.

By allowing for development targets to be met within the Local Planning Framework area, 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 degree²⁸. New development would have to be accompanied by appropriate levels of infrastructure and services²⁹.

4.3.2 Alternative 2: Sustainable Transportation

By focusing on delivering 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 higher densities, 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 greater degree³⁰ and conflict with these efforts to a lesser degree³¹.

Dezoning undeveloped greenfield lands, including parts of the Strategic Land Bank (SLB) that is not within 12-minute walking distance of a public transport node/stop would reduce the potential for adverse environmental effects to occur from development at these locations³² (although the potential would remain elsewhere, including as a result of new and enhanced transport infrastructure) and benefit the protection and management of environmental components such as biodiversity and flora and fauna, soil and landscape³³.

This alternative would allow for development targets to be met within the Local Planning Framework area, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of the Local Planning Framework area, in areas that are potentially more sensitive, less well-serviced and less-well connected³⁴. As a result, the protection and management of environmental components beyond the Local Planning Framework area would be benefited³⁵.

4.3.3 Alternative 3: Compact Growth

By allowing for development targets to be met within the Local Planning Framework area, 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 degree³⁶. New development would have to be accompanied by appropriate levels of infrastructure and services³⁷.

Dezoning all undeveloped greenfield lands would reduce the potential for adverse environmental effects to occur from development at these locations³⁸ (although the potential would remain elsewhere, including as a result of town and village centre development and mixed use, high density residential development on infill sites previously zoned for employment uses within the built-up area) and benefit the protection

²⁶ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** SEO interactions in Table 4.1.

²⁷ See significant positive environmental effects, likely to occur: **A C S BFF W PHH MA L CH** SEO interactions in Table 4.1.

²⁸ See significant positive environmental effects, likely to occur: **MA A C PPH** SEO interactions in Table 4.1.

²⁹ See potentially significant adverse environmental effects, if unmitigated: **MA A C PHH** SEO interactions in Table 4.1.

³⁰ See significant positive environmental effects, likely to occur: **MA A C PPH** SEO interactions in Table 4.1.

³¹ See potentially significant adverse environmental effects, if unmitigated: **MA A C PHH** SEO interactions in Table 4.1.

³² See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** SEO interactions in Table 4.1.

³³ See significant positive environmental effects, likely to occur: **BFF PHH S A W L CH** SEO interactions in Table 4.1.

³⁴ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** SEO interactions in Table 4.1.

³⁵ See significant positive environmental effects, likely to occur: **A C S BFF W PHH MA L CH** SEO interactions in Table 4.1.

³⁶ See significant positive environmental effects, likely to occur: **MA A C PPH** SEO interactions in Table 4.1.

³⁷ See potentially significant adverse environmental effects, if unmitigated: **MA A C PHH** SEO interactions in Table 4.1.

³⁸ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** SEO interactions in Table 4.1.

and management of environmental components such as biodiversity and flora and fauna, soil and landscape³⁹.

This alternative would allow for development targets to be met within the Local Planning Framework area, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of the Local Planning Framework area, in areas that are potentially more sensitive, less well-serviced and less-well connected⁴⁰. As a result, the protection and management of environmental components beyond the Local Planning Framework area would be benefited⁴¹.

4.3.4 Alternative 4: Housing Market Driven

Due to changes to the National Planning Framework, Regional Spatial and Economic Strategy and changes to planning legislation, in order to future proof the Local Planning Framework, this alternative will allow for flexibility in the residential zoning provisions to ensure that the population targets / any revised population targets can be achieved and in the event that unforeseen impediments to the development of certain lands arise.

By providing for

- a. excesses in zoned land (above current targets) and lower densities of housing development
- b. facilitating increases in car dependency and
- c. providing for community and education, employment and active open space uses on the periphery of the residential zoned land,

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 lesser degree⁴²; and
- conflict with these efforts to a greater degree⁴³.

This alternative would provide zoning for ten years of housing needs and demand would be met through lower densities, requiring a greater extent of lands to be zoned for development. The extent of greenfield development provided and the lack of a focus on infill/regeneration development would present a greater potential for adverse environmental effects to occur from such development within the Local Planning Framework area under this alternative⁴⁴ and consequently benefit the protection and management of environmental components such as biodiversity and flora and fauna, soil and landscape, in the Local Planning Framework area to a lesser degree⁴⁵.

This alternative would allow for development targets to be met within the Local Planning Framework area, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of the Local Planning Framework area, in areas that are potentially more sensitive, less well-serviced and less-well connected⁴⁶. As a result, the protection and management of environmental components beyond the Local Planning Framework area would be benefited⁴⁷.

³⁹ See significant positive environmental effects, likely to occur: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

⁴⁰ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

⁴¹ See significant positive environmental effects, likely to occur: **A C S BFF W PHH MA L CH** - SEO interactions in Table 4.1.

⁴² See significant positive environmental effects, likely to occur: **MA A C PPH** - SEO interactions in Table 4.1.

⁴³ See potentially significant adverse environmental effects, if unmitigated: **MA A C PHH** - SEO interactions in Table 4.1.

⁴⁴ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

⁴⁵ See significant positive environmental effects, likely to occur: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

⁴⁶ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** - SEO interactions in Table 4.1.

⁴⁷ See significant positive environmental effects, likely to occur: **A C S BFF W PHH MA L CH** - SEO interactions in Table 4.1.

4.3.5 Alternative 5: Community Driven

By focusing on healthy communities, where residents have all necessary facilities and services within short walking/cycling distance of their homes, 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 greater degree⁴⁸ and conflict with these efforts to a lesser degree⁴⁹.

Providing for a strengthened town centre and more opportunity sites for the redevelopment of brownfield sites would help to reduce demand for greenfield development within the Local Planning Framework area and associated potential for adverse environmental effects to occur from such development⁵⁰ (although the potential would remain) and benefit the protection and management of environmental components such as biodiversity and flora and fauna, soil and landscape, especially in peripheral parts of the Local Planning Framework area⁵¹.

This alternative would allow for development targets to be met within the Local Planning Framework area, reducing demand and associated potential for dispersed adverse environmental effects to occur as a result of development occurring outside of the Local Planning Framework area, in areas that are potentially more sensitive, less well-serviced and less-well connected⁵². As a result, the protection and management of environmental components beyond the Local Planning Framework area would be benefited⁵³.

⁴⁸ See significant positive environmental effects, likely to occur: **MA A C PPH** SEO interactions in Table 4.1.

⁴⁹ See potentially significant adverse environmental effects, if unmitigated: **MA A C PPH** SEO interactions in Table 4.1.

⁵⁰ See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** • SEO interactions in Table 4.1.

⁵¹ See significant positive environmental effects, likely to occur: **BFF PHH S A W L CH** • SEO interactions in Table 4.1.

⁵² See potentially significant adverse environmental effects, if unmitigated: **BFF PHH S A W L CH** ■ SEO interactions in Table 4.1.

⁵³ See significant positive environmental effects, likely to occur: **A C S BFF W PHH MA L CH** ■ SEO interactions in Table 4.1.

Table 4.1 Overall Comparative Assessment of Alternatives against SEOs⁵⁴

Alternative	Likely to Improve status of SEOs +			Potential Conflict with status of SEOs - likely to be mitigated -			Probable Conflict with status of SEOs - unlikely to be mitigated -
	to a Greater degree	to a Moderate degree	to a Lesser degree	to a Lesser degree	to a Moderate degree	to a Greater degree	
Alternative 1: Maximum Environmental Protection	BFF PHH S W L CH - 	MA A C PPH		BFF PHH S W L CH - 	MA A C PPH		
Alternative 2: Sustainable Transportation	MA A C PPH 	BFF PHH S W L CH -		MA A C PPH 	BFF PHH S W L CH -		
Alternative 3: Compact Growth	BFF PHH S W L CH - 	MA A C PPH BFF PHH S W L CH -		BFF PHH S W L CH - 	MA A C PPH BFF PHH S W L CH -		
Alternative 4: Housing Market Driven ⁵⁵	BFF PHH S W L CH - 		MA A C PPH BFF PHH S W L CH -	BFF PHH S W L CH - 		MA A C PPH BFF PHH S W L CH -	
Alternative 5: Community Driven	MA A C PPH BFF PHH S W L CH - 	BFF PHH S W L CH -		MA A C PPH BFF PHH S W L CH - 	BFF PHH S W L CH -		

- = These interactions relate to positive effects on the protection and management of the environment within the Local Planning Framework area (directing incompatible development away from the most sensitive areas within the Local Planning Framework area and focusing on directing compact, sustainable development within the proposed envelope of the Local Planning Framework area)
- = These interactions relate to the potential for direct adverse environmental effects, if unmitigated (arising from development within the Local Planning Framework area)
-  = These interactions relate to positive effects on the protection and management of the environment beyond the Local Planning Framework area (as a result of providing development within the Local Planning Framework area)
-  = These interactions relate to adverse environmental effects, if unmitigated, (arising from development occurring beyond the Local Planning Framework area)

⁵⁴ For more detail on Strategic Environmental Objectives refer to Section 3.11.

⁵⁵ Although potential effects would be reduced to a degree by the implementation to project level mitigation relating to the protection of individual environmental components, significant and unavoidable residual adverse environmental effects would be likely to occur following mitigation due to the extent of additional lands being zoned for development and their location.

4.4 Selected Alternative for the Variation

The 'Selected Alternative' for the Variation integrates the following components from the five above evaluated alternative scenarios for the Local Planning Framework for the Greystones-Delgany and Kilcoole area:

- from "Alternative 1: Maximum Environmental Protection"
 - Protection to European Sites (SAC and SPA) and NHAs.
 - Protection of the trees on the Tree Preservation Orders (TPO) list and protect all other mature trees and hedgerows.
 - Protection of watercourses in accordance with Inland Fisheries Ireland 'Planning for Watercourses in the Urban Environment' 2020.
 - Enhance the protection of views and prospects.
 - Protection of County Geological Sites within the Local Planning Framework boundary.

- from "Alternative 2: Sustainable Transportation"
 - Zone land high-density mixed-use within 12-minute walking distance of the Train/DART Station in Greystones.
 - Zone land new residential located within walking distance of all bus stop areas.
 - Downzone Strategic Land Bank (SLB)
 - Enhanced pedestrianisation and cycle lanes in Greystones, Delgany and Kilcoole town and village centres.
 - Enhanced pedestrian connections throughout the settlements.
 - Enhanced cycle routes and connections throughout the settlements.

- from "Alternative 3: Compact Growth"
 - Downzone the Strategic Land Bank (SLB) beyond the established current built up area boundary.
 - All Town Centre/ Village Centre Sites provide for high density mixed use.
 - Infill sites zoned for employment uses within the built-up area are zoned mixed use, high density residential

- from "Alternative 4: Housing Market Driven"
 - Due to changes to the National Planning Framework, Regional Spatial and Economic Strategy and changes to planning legislation, in order to future proof the LPF this alternative will allow for flexibility in the residential zoning provisions to ensure that the population targets / any revised population targets can be achieved and in the event that unforeseen impediments to the development of certain lands arise. (*with strict phasing criteria*)

- from "Alternative 5: Community Driven"
 - Extra lands, above the minimum requirement for new schools are zoned close to residential areas.
 - Extra lands, above the minimum requirement for recreational/ sports / community facilities are zoned for Community Education (CE) and Active Open Space (AOS) (*In line with the Social Infrastructure Audit*)
 - New walking routes / cycling routes are designated throughout the settlements.
 - There will be additional policy support for childcare facilities (Crèches, Montessori, playgrounds, etc) throughout the settlements. (*Childcare uses are permitted in principle in all development zones*)
 - There will be additional policy support for healthcare facilities (extra GP's, health centres, dentists, holistic centres, etc) throughout the settlements. (*Healthcare uses are permitted in principle in all development zones*)

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.

An assessment of the 'Selected Alternative' against SEOs is provided at Table 4.2. 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, climate mitigation and human health) and infrastructural and services efficiencies to a greater degree (improving SEO interactions for **MA A C PPH**), conflicting with these to a lesser degree (potentially conflicting SEO interactions for **MA A C PPH**);
- Maximise positive effects on the protection and management of the environment beyond the Local Planning Framework area as a result of providing development within the Local Planning Framework area (improving SEO interactions for **BFF PHH S W L CH**), while helping to minimise adverse environmental effects (if unmitigated) arising from development occurring beyond the Local Planning Framework area (potentially conflicting SEO interactions for **BFF PHH S W L CH**); and
- Maximise positive effects on the protection and management of the environment within the Local Planning Framework area as a result of directing incompatible development away from the most sensitive areas within the Local Planning Framework area and focusing on directing compact, sustainable development within the proposed envelope of the Local Planning Framework area (improving SEO interactions for **BFF PHH S W L CH -**), while helping to minimise adverse environmental effects (if unmitigated) arising from development occurring within the Local Planning Framework area (potentially conflicting SEO interactions for **BFF PHH S W L CH -**).

Table 4.2 Assessment of 'Selected Alternative' against SEOs⁵⁶

	Likely to Improve status of SEOs +			Potential Conflict with status of SEOs - likely to be mitigated -			Probable Conflict with status of SEOs - unlikely to be mitigated -
	to a Greater degree	to a Moderate degree	to a Lesser degree	to a Lesser degree	to a Moderate degree	to a Greater degree	
Selected Alternative for the Variation's Local Planning Framework for the Greystones-Delgany and Kilcoole area	MA A C PPH BFF PPH S W L CH · BFF PPH S W L CH			MA A C PPH BFF PPH S W L CH · BFF PPH S W L CH			

▪ = These interactions relate to positive effects on the protection and management of the environment within the Local Planning Framework area (directing incompatible development away from the most sensitive areas within the Local Planning Framework area and focusing on directing compact, sustainable development within the proposed envelope of the Local Planning Framework area)

▪ = These interactions relate to the potential for direct adverse environmental effects, if unmitigated (arising from development within the Local Planning Framework area)

■ = These interactions relate to positive effects on the protection and management of the environment beyond the Local Planning Framework area (as a result of providing development within the Local Planning Framework area)

■ = These interactions relate to adverse environmental effects, if unmitigated, (arising from development occurring beyond the Local Planning Framework area)

⁵⁶ For more detail on Strategic Environmental Objectives refer to Section 3.11.

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 the Local Planning Framework area and the wider County and the effects are consistent with those identified by the SEA for the Wicklow 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 Wicklow 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.

Stage 2 Appropriate Assessment (AA) has been undertaken alongside the preparation of the Variation. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The AA assesses the effects of the Variation on European Sites designated for certain habitats and species. The conclusion of the AA is that the Variation will not affect the integrity of any European Site, alone or in combination with other plans or projects⁵⁷.

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 both the land use zoning and the written provisions of the Local Planning Framework.

Instances whereby environmental considerations were not fully integrated into the Variation are addressed after Table 5.2 below.

⁵⁷ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:
 (a) no alternative solution available;
 (b) imperative reasons of overriding public interest for the plan, or variation to the plan, to proceed; and
 (c) adequate compensatory measures in place.
 CAAS for Wicklow County Council

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 Wicklow 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 (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 lands elsewhere in the Local Planning Framework area 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 (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 the Local Planning Framework area and beyond Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 lands elsewhere in the Local Planning Framework area and beyond. 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 with human health if effects arise 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 (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 lands elsewhere in the Local Planning Framework area 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 and coastal 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. Coastal and riverbank erosion will continue to occur naturally over time and is likely to be enhanced by climate change.

SEA Environmental Report Appendix II: Non-Technical Summary

Water	<ul style="list-style-type: none"> • Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 lands elsewhere in the Local Planning Framework area 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 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 (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 the Local Planning Framework area 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.
Air and Climatic Factors	<ul style="list-style-type: none"> • Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to Central/core locations within the Local Planning Framework area) 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 the Local Planning Framework area 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 quality⁵⁸. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors⁵⁹. • 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 that have been integrated into 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 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 Local Planning Framework area. • Contributes towards protection of cultural heritage within the Local Planning Framework 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 Local Planning Framework 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 Development Plan's landscape protection measures.

⁵⁸ 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 Local Planning Framework area and beyond.

⁵⁹ 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 Local Planning Framework area and beyond.

Instances whereby environmental considerations were not fully integrated into the Variation

Against the advice of the Executive, the Members decided to adopt certain Proposed Material Alterations as part of the Variation. The Alterations that did not fully integrate environmental considerations into the Variation, together with the advice to Members provided in the SEA Environmental Report that accompanied the Alterations on public display, are detailed on Table 5.2 below.

Table 5.2 Material Alterations that did not fully integrate environmental considerations into the Variation and associated SEA commentary (numbering as per adopted alterations)

Material Alteration	Commentary from SEA Environmental Report that accompanied the Proposed Material Alterations on public display
7	<p>Alteration No. 7 amended zoning of land at Bellevue Demesne measuring c. 0.65ha from unzoned outside the settlement/LPF boundary to R-Special 'Special Residential' and to add a related written provision.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur – these lands are not proximate to Delgany Village); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur – the site not have access to sewers as there are no main services in this area); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); • Increased loadings on water bodies; • Would increase flood risk (as detailed in the SFRA addendum "The proposed R Special zoning, in the Flood Zones A & B, is not appropriate").
8	<p>Alteration No. 8 amended zoning of land at Bellevue Demesne measuring c. 2.7ha from unzoned/outside the LPF boundary to RS 'Special Residential' and to add a related written provision.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial

Material Alteration	Commentary from SEA Environmental Report that accompanied the Proposed Material Alterations on public display
	<p>surfaces (residual effects would occur);</p> <ul style="list-style-type: none"> • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
21	<p>Alteration No. 21 amended SLO 6 (including text) and zoning of land at Ballydonarea from c. 0.35ha zoned OS2 'Natural Areas' to c. 0.31ha zoned RE 'Existing Residential' and c. 0.04ha zoned RN2 'New Residential – Priority 2'.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>As identified in the CE's response, this proposal relates to lands that contain a natural watercourse corridor and are ecologically sensitive and valuable.</p> <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
23A	<p>Alteration No. 23A includes the amendment of zoning of unzoned land at Kilcoole from outside the settlement/LPF boundary to RN1 'New Residential – Priority 1' (c. 5.69ha) and to add new SLO text and map for lands at Darraghville.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Adverse effects on architectural heritage; • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
24	<p>Alteration No. 24 amended zoning of land at Ballydonarea measuring c. 6.6ha from AOS 'Active Open Space' (c. 4.4ha) and unzoned outside the LPF boundary (c. 2.2ha) to RN1 'New Residential – Priority 1' (c. 4.4ha) and AOS 'Active Open Space' (c. 2.2ha), and to add new SLO text and map for lands at Lott Lane.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist

Material Alteration	Commentary from SEA Environmental Report that accompanied the Proposed Material Alterations on public display
	<p>input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or</p> <ul style="list-style-type: none"> • areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
25	<p>Alteration No. 25 amended zoning of land at Ballycrone measuring c. 4.6ha from unzoned outside the settlement/LPF boundary to RE 'Existing Residential' (c. 0.3ha), RN1 'New Residential - Priority 1' (c. 2.3ha) and AOS 'Active Open Space' (c. 2ha), and to add new SLO text and map for lands at Ballycrone.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or • areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
27	<p>Alteration No. 27 amended zoning of land at Priestsnewtown measuring c. 0.14ha from unzoned outside the settlement/LPF boundary to RN1 'New Residential - Priority 1' (c. 0.14ha).</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or • areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur);

Material Alteration	Commentary from SEA Environmental Report that accompanied the Proposed Material Alterations on public display
	<ul style="list-style-type: none"> • Adverse effects on non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
28	<p>Alteration No. 28 amended zoning of land at Farrankelly measuring c. 0.24ha from partially unzoned outside the settlement/LPF boundary and partially RE 'Existing Residential', to RN1 'New Residential – Priority 1'.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
30	<p>Alteration No. 30 amended zoning of land at Bellevue Demesne measuring c. 0.6ha from unzoned/outside the LPF boundary to RE 'Existing Residential'.</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and Wicklow County Development Plan. • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Adverse effects on architectural heritage; • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.
31	<p>Alteration No. 31 amended zoning of lands at Sea Road measuring c.0.42ha from unzoned/outside the LPF boundary to New Residential – Priority 1 (RN 1).</p> <p>As has already been identified in the SEA Environmental Report that was placed on public display alongside the Proposed Variation / Draft Local Planning Framework:</p> <ul style="list-style-type: none"> • Environmental considerations have been integrated into the Draft Local Planning Framework's zoning through an interdisciplinary approach. • Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES and

Material Alteration	Commentary from SEA Environmental Report that accompanied the Proposed Material Alterations on public display
	<p>Wicklow County Development Plan.</p> <ul style="list-style-type: none"> • The detailed Plan preparation process undertaken by the Planning Department combined with specialist input seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or • areas of elevated cultural/built heritage, landscape, water or ecological sensitivity. <p>This proposal would not provide the most evidence-based framework for development and has the potential to undermine sustainable development and proper planning - with potential for associated unnecessary adverse environmental effects on various environmental components, including:</p> <ul style="list-style-type: none"> • Conflict with efforts to maximise sustainable compact growth, sustainable mobility and a transition to a low carbon and climate resilient society (residual effects would occur); • Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives (residual effects would occur); • Adverse impacts upon the economic viability of providing for public assets and infrastructure (residual effects would occur); • Adverse effects on ecology, ecological connectivity and non-designated habitats and species (residual effects would occur); • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces (residual effects would occur); • Occurrence of visual impacts (residual effects would occur); and • Increased loadings on water bodies.

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 ⁶⁰;
- Considering alternatives for the Variation ⁶¹;
- 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.

⁶⁰ In preparing the Variation, information relating to various sectors, from different Departments within the Council 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: a Green Infrastructure Study; a Social Infrastructure Audit; and an Infrastructure Delivery Schedule with associated details on phasing and implementation.

⁶¹ Although strategic alternatives in relation to the content of the Variation were significantly limited for the Variation (see Section 4), as part of the Variation preparation/SEA process alternatives for the Variation were considered. These alternatives were assessed by the SEA process and the findings of this assessment informed the selection of alternatives for the Variation, facilitating an informed choice with respect to the type of Variation that was prepared and made.

Table 6.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	Indicators	Targets	Sources	Remedial Action ⁶²
Biodiversity, Flora and Fauna	<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)⁶³ DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 6 years)⁶⁴ 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 County Development Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 17 “Natural Heritage and Biodiversity” from Volume 1 	<ul style="list-style-type: none"> For planning permission to be only granted when applications demonstrate that they comply with all County Development Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 17 “Natural Heritage and Biodiversity” from Volume 1 	<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	<ul style="list-style-type: none"> Implementation of County Development Plan measures relating to the promotion of economic growth as provided for by Chapter 9 “Economic Development” from Volume 1 	<ul style="list-style-type: none"> Progress in successfully implementing County Development Plan measures relating to the promotion of economic growth as provided for by Chapter 9 “Economic Development” from Volume 1 	<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 DECC
	<ul style="list-style-type: none"> Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Development Plan, as varied 	<ul style="list-style-type: none"> No spatial concentrations of health problems arising from environmental factors as a result of implementing the Development Plan, as varied 	<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

⁶² Where remedial action is required, consultations with government agencies (e.g. DECC, 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.

⁶³ 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.

⁶⁴ 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	Indicators	Targets	Sources	Remedial Action ⁶²
	<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 Development 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, DECC 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)	<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"> Maintain built surface cover nationally to below the EU average of 4% as per the NPF In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlements 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	<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 compliance⁶⁵ 	<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.
	<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

⁶⁵ Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available

SEA Environmental Report Appendix II: Non-Technical Summary

Environmental Component	Indicators	Targets	Sources	Remedial Action ⁶²
Material Assets	<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 Development Plan, as varied 	<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 Development Plan, as varied 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"> and management measures. 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 Development 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, DECC and NTA to develop a tailored response.
Air	<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 Development 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, DECC and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	<ul style="list-style-type: none"> Implementation of Development Plan measures relating to climate reduction targets 	<ul style="list-style-type: none"> For review of progress on implementing Development 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 Wicklow 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 may be increased following a provisional 	<ul style="list-style-type: none"> EPA Greenhouse Gas Emissions reporting Internal review of implementation of 	

SEA Environmental Report Appendix II: Non-Technical Summary

Environmental Component	Indicators	Targets	Sources	Remedial Action ⁶²	
		European agreement on 30 March 2023 for a binding overall RES target of at least 42.5% by 2030)	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 Development 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 Development 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, DECC and NTA to develop a tailored response.
Cultural Heritage	<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 Development Plan, as varied 	<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 Development Plan, as varied 	<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 Development Plan, as varied 	<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 Development Plan, as varied 	<ul style="list-style-type: none"> Internal review of development management / grants of permission 		
Landscape	<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 Development Plan, as varied 	<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 Development Plan, as varied 	<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 	