

Ballyogan & Environs

Local Area Plan 2019 - 2025

APPENDICES

- ❖ Strategic Environmental Assessment – Environmental Report
- ❖ Strategic Environmental Assessment – Environmental Report – Non-Technical Summary
- ❖ Appropriate Assessment Screening Report
- ❖ Strategic Flood Risk Assessment

SEA ENVIRONMENTAL REPORT

FOR THE

BALLYOGAN AND ENVIRONS LOCAL AREA PLAN 2019-2025

for: Dún Laoghaire-Rathdown County Council

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List of Abbreviations

AA	Appropriate Assessment
ACA	Architectural Conservation Area
CFRAM	Catchment Flood Risk Assessment and Management
CSO	Central Statistics Office
DEHLG	Department of the Environment, Heritage and Local Government
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EU	European Union
GSi	Geological Survey of Ireland
pNHA	Proposed Natural Heritage Area
NHA	Natural Heritage Area
OPW	Office of Public Works
RBD	River Basin District
RMP	Record of Monuments and Places
RPA	Register of Protected Areas
RPS	Record of Protected Structures
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEO	Strategic Environmental Objective
SI No.	Statutory Instrument Number
SPA	Special Protection Area
WFD	Water Framework Directive

Glossary

Appropriate Assessment

The obligation to undertake Appropriate Assessment derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. AA is a focused and detailed impact assessment of the implications of a strategic action (such as a plan or programme) or project, alone and in combination with other strategic actions and projects, on the integrity of a European Site in view of its conservation objectives.

Biodiversity and Flora and Fauna

Biodiversity is the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems' (United Nations Convention on Biological Diversity 1992).

Flora is all of the plants found in a given area.

Fauna is all of the animals found in a given area.

Environmental Problems

Annex I of Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the assessment of the effects of certain Plans and programmes on the environment (the Strategic Environmental Assessment Directive) requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse.

Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the outset they can help focus attention on important issues and geographical areas where environmental effects of the plan or programme may be likely.

Environmental Vectors

Environmental vectors are environmental components, such as air, water or soil, through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings.

Mitigate

To make or become less severe or harsh.

Mitigation Measures

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing a human action, be it a plan, programme or project. Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration should be given in the first instance to preventing such effects or, where this is not possible, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: avoid effects; reduce the magnitude or extent, probability and/or severity of effects; repair effects after

they have occurred; and compensate for effects, balancing out negative impacts with other positive ones.

Protected Structure

Protected Structure is the term used in the Planning and Development Act and Regulations (as amended) to define a structure included by a planning authority in its Record of Protected Structures. Such a structure shall not be altered or demolished in whole or part without obtaining planning permission or confirmation from the planning authority that the part of the structure to be altered is not protected.

Recorded Monument

A monument included in the list and marked on the map that comprises the Record of Monuments and Places that is set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest that have so far been identified. Any works at or in relation to a recorded monument requires two months' notice to the former Department of the Environment, Heritage and Local Government (now Department of Culture, Heritage and the Gaeltacht) under Section 12 of the National Monuments (Amendment) Act, 1994.

Scoping

Scoping is the process of determining what issues are to be addressed, and setting out a methodology in which to address them in a structured manner appropriate to the plan or programme. Scoping is carried out in consultation with appropriate environmental authorities.

Strategic Actions

Strategic actions include *Policies/Strategies*, which may be considered as inspiration and guidance for action and which set the framework for Plans and programmes; *Plans*, sets of co-ordinated and timed objectives for the implementation of the policy; and *Programmes*, sets of projects in a particular area.

Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt it.

Strategic Environmental Objective (SEO)

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at international, Community or Member State level and are used as standards against which the provisions of the Plan and the alternatives can be 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.

Section 1 SEA Introduction and Background

1.1 Introduction and Terms of Reference

This is the Strategic Environmental Assessment (SEA) Environmental Report for the Ballyogan and Environs Local Area Plan 2019-2025. It has been undertaken by CAAS Ltd. on behalf of Dún Laoghaire-Rathdown County Council.

1.2 SEA Definition

Environmental assessment is a procedure that ensures that the environmental implications of decisions are taken into account before such decisions are made. *Environmental Impact Assessment*, or EIA, is generally used for describing the process of environmental assessment for individual projects, while *Strategic Environmental Assessment* or SEA is the term that has been given to the environmental assessment of plans and programmes, which help determine the nature and location of individual projects taking place. SEA is a systematic process of predicting and evaluating the likely significant environmental effects of implementing a proposed plan or programme, in order to ensure that these effects are adequately addressed at the earliest appropriate stages of decision-making in tandem with economic, social and other considerations.

1.3 SEA Directive and its transposition into Irish Law

Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use planning.

The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans

and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 21st July 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011) and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (SI No. 201 of 2011).

1.4 Implications for the Local Area Plan and the Planning Authority

SEA is required to be undertaken on LAPs that for an area the population or the target population of which is 5,000 persons or more. As the existing population of the Ballyogan and Environs LAP area exceeds this threshold, SEA must be undertaken. This report should be read in conjunction with the Plan.

The findings of the SEA are expressed in this Environmental Report. This report has been updated in order to take account of recommendations contained in submissions and in order to take account of any changes made to the original Draft Plan that was placed on public display. Elected Members of Dún Laoghaire-Rathdown County Council have taken into account the findings of this report and other related SEA output during their consideration of the Plan and before its adoption. An SEA Statement has been prepared that summarises how environmental considerations have been integrated into the Plan.

Section 2 The Local Area Plan

2.1 Introduction

Dún Laoghaire-Rathdown County Council has made a new Local Area Plan (LAP) for Ballyogan and Environs under Section 20 of the Planning and Development Act 2000 (as amended). The Plan sets out an overall strategy for the proper planning and sustainable development over the years 2019-2025. As part of the process of preparing the Plan, 16 neighbourhoods have been delineated across five quarters (Glencairn, Ballyogan, Kilgobbin, Stepside and Carrickmines).

LAPs are required to be consistent with the policies and objectives of the County Development Plan and its Core Strategy, as well as the Regional Planning Guidelines that apply to the area of the Plan.

The LAP should be read in conjunction with the Dún Laoghaire-Rathdown County Development Plan 2016-2022, which sets out the overarching development strategy for the County. Where any provisions of the LAP conflict with the provisions of the County Development Plan, the provisions of the LAP shall cease to have effect.

2.2 Content of the Plan

The Plan comprises a Written Statement (including written policies and objectives) and associated maps (including land use zoning). The Plan will contribute towards the proper planning and sustainable development of the area.

Chapters 1 to 3 of the Plan (*Introduction, Context and Vision Statement*) provide an overview of the LAP. Chapters 4 to 10 cover the specific subject areas as follows:

- *Transport and Movement*
- *Residential Development and Built Form*
- *Retail and Employment*
- *Built Heritage and Archaeology*
- *Community Facilities*
- *Leisure and Environment*
- *Sustainable Infrastructure*

Chapter 11 comprises *Specific Local Objectives (SLOs)* while Chapter 12 comprises two *Site Development Frameworks (SDFs)* that provide a more in-depth suite of policies for the two largest tracts of undeveloped zoned land within the LAP area, at Racecourse South and Kilgobbin.

Appendices include the SEA Environmental Report, SEA Environmental Report Non-Technical Summary, Appropriate Assessment Screening Report and Strategic Flood Risk Assessment.

2.3 Vision Statement¹

The overarching objective of the Plan is to:

"help the BELAP area to develop as a good quality place to live, work, and visit. It is recognised that the existing communities within the area represent around half the future population, based on the extent of zoned land. The needs of both the existing and future communities of this area will be catered for under this Plan.

The neighbourhoods and quarters within the BELAP area will develop as self-contained places from the perspective of character, services, facilities, and place-making, but will become connected both to one another and to the wider County and Region by a network of new and improved connections, with a focus on sustainable modes of transport.

Historical challenges for the area such as shortcomings and imbalances in retail, community, and recreational facilities will be addressed, while building on the area's strengths such as heritage, sense of place, and access to good quality transport networks.

A major focus of the Plan will be the need to provide new and improved linkages through the BELAP area, with a particular focus on linking residential

¹ Text in this section is taken from the Plan

areas to Neighbourhood Centres, community facilities, schools and the Luas Green Line, as well as providing recreational routes that capitalise on the area's natural heritage.

Providing new and improved ways to cross the M50 for pedestrians and cyclists and for local vehicular traffic will be important, as will providing linkages for sustainable transport modes – such as walking, cycling, and public transport - to the adjacent growth areas of Sandyford Business District and Cherrywood.

There is a focus on the significant remaining areas of zoned residential lands by way of Site Development Frameworks, along with a commitment to providing the supporting infrastructure in tandem with future development.

The BELAP area has a legacy of land uses such as utility, light industrial, landfill, retail warehousing, etc. In some instances it will be appropriate to support these uses, which serve a function at a wider Regional level. In others, it will be appropriate to support a transition to other land uses that better support the area's role within the County and Region."

2.4 Relationship with other relevant Plans and Programmes

The Plan sits within a hierarchy of strategic actions such as plans and programmes and is subject to a number of high-level environmental protection policies and objectives with which it must comply (including those detailed below and in Appendix I, Section 4, Section 5 and Section 1 of this report).

The Plan must comply with relevant higher-level strategic actions and may, in turn, guide lower level strategic actions. In this regard, Appendix I includes statutory provisions, plans, policies and strategies that set the context within which the Plan is framed and which have influenced the provisions of the Plan.

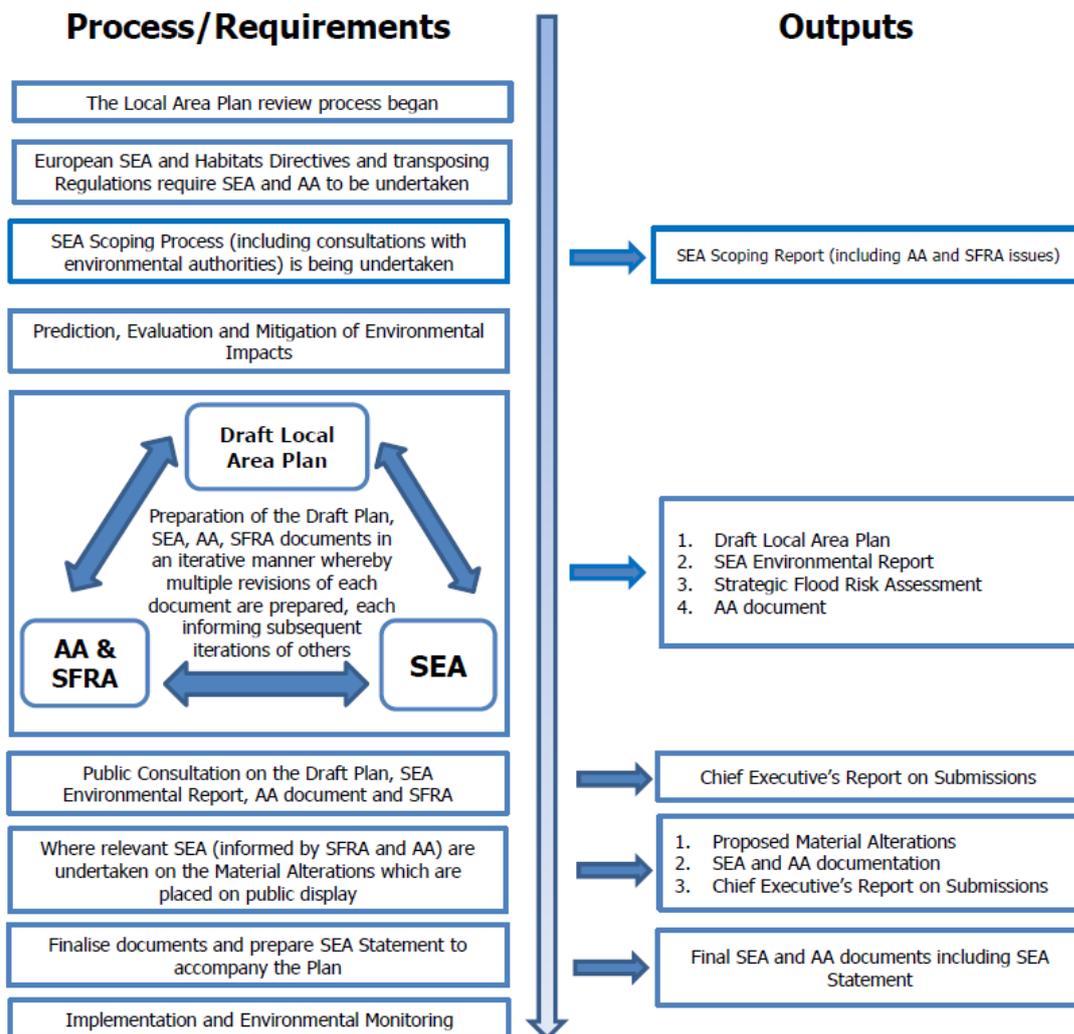
Section 3 SEA Methodology

3.1 Introduction to the Iterative Approach

Figure 3.1 provides an overview of the integrated Plan preparation, SEA, Appropriate Assessment (AA) Screening and Strategic

Flood Risk Assessment (SFRA) processes. The preparation of the Plan, SEA and AA Screening have taken place concurrently and the findings of the SEA, AA Screening and SFRA have informed the Plan.

Figure 3.1 Overview of the SEA Process in the Review and Preparation of the Plan



3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment

3.2.1 Appropriate Assessment

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

The conclusion of the AA Screening is that that the Plan will not give rise to any effect on the ecological integrity of any European Sites, alone or in combination with other plans or projects.

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed the SEA.

3.2.2 Integrated Biodiversity Impact Assessment

Many elements of Integrated Biodiversity Impact Assessment as detailed in the EPA's (2013) Practitioner's Manual have been aligned with in the undertaking of the SEA for the Plan. These include:

Scoping

- Biodiversity-relevant issues were identified for consideration at scoping stage and these are now detailed in Section 4.5.
- Reference to a zone of influence is provided at Section 4.5.

Baseline

- Biodiversity data sources relevant for this local level assessment have been identified and datasets collated/gathered.
- The biodiversity baseline addresses designated sites and other habitats and species of ecological value.
- AA Screening information has been incorporated into the SEA baseline.

Alternatives

- Impacts upon biodiversity are considered under each of the alternatives and potential conflicts can be mitigated.

Impact assessment

- Effects on biodiversity are identified and assessed and the AA Screening gives consideration to the interrelationship between

biodiversity and potential effects on European Sites.

Mitigation and monitoring

- Taking into account all measures contained within the Plan, all the proposed mitigation measures deriving from the various processes were generally consistent and compatible.
- Indicators and associated targets have been included in SEA for monitoring European Sites.

Reporting

- This SEA ER addresses all biodiversity-related considerations relevant for this local level assessment.
- This SEA ER contains all biodiversity-relevant information, data, figures and maps relevant for this local level assessment.
- This SEA ER has been informed by the AA Screening findings.

Communication and consultation

- Submissions received have been taken on board.
- The preparation of the Plan, SEA and AA Screening has taken place concurrently and the findings of the AA have informed the SEA.

3.3 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Plan, SEA and SFRA has taken place concurrently and the findings of the SFRA have informed both the Plan and the SEA.

Please refer to Section 4.8.8 for more details on flooding issues.

3.4 Scoping

3.4.1 Introduction

In consultation with the relevant authorities, the scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental

components that are specified under the SEA Directive².

As the Plan is not likely to have significant effects on the environment in another Member State transboundary consultations as provided for by Article 7 of the SEA Directive were not undertaken.

3.4.2 Scoping Notices

All relevant environmental authorities³ identified under the SEA Regulations as amended, were all sent SEA scoping notices by the Council indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to the Council.

3.4.3 Scoping Submissions

Submissions were made by the Environmental Protection Agency and the Department of Communications, Climate Action and Environment during the SEA Scoping/ original Draft Plan preparation process. These submissions were taken into account during preparation of the SEA.

3.5 Environmental Baseline Data

The SEA process is informed by the environmental baseline (i.e. the current state of the environment) to facilitate the identification and evaluation of the likely significant environmental effects of implementing the provisions of the Plan and the alternatives and the subsequent monitoring of the effects of implementing the provisions of the Plan as adopted.

² These components comprise biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

³ The following authorities were notified: Department of Agriculture, Food and the Marine; Department of Culture, Heritage, and the Gaeltacht; Department of Communications, Climate Action and Environment; Environmental Protection Agency; Dublin City Council; South Dublin County Council; and Wicklow County Council.

3.6 Alternatives

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. In accordance with this requirement, alternatives for the Plan are examined in Section 7.

3.7 The SEA Environmental Report

In this SEA Environmental Report, which an earlier version of was placed on public display alongside the original Draft Plan, the likely environmental effects of the Plan and the alternatives are predicted and their significance evaluated.

The Environmental Report provides the Council, stakeholders and the public with a clear understanding of the likely environmental consequences of implementing the Plan.

Mitigation measures to prevent or reduce significant adverse effects posed by the Plan are identified in Section 1.

The Environmental Report that was placed on public display alongside the Draft Plan has been updated in order to take account of recommendations contained in submissions and in order to take account of changes that were made to the original Draft Plan.

This Environmental Report contains the information specified in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended (see Table 3.1).

3.8 The SEA Statement

An SEA Statement has been prepared that includes information on:

- How environmental considerations have been integrated into the Plan, highlighting the main changes to the Plan which resulted from the SEA process;
- How the SEA Environmental Report and consultations have been taken

into account, summarising the key issues raised in consultations and in the Environmental Report indicating what action was taken in response;

- The reasons for choosing the Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Plan as adopted was selected; and
- The measures decided upon to monitor the significant environmental effects of implementing of the Plan.

Table 3.1 Checklist of Information included in this Environmental Report

Information Required to be included in the Environmental Report	Corresponding Section of this Report
(A) Outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes	Sections 2, 5 and 8
(B) Description of relevant aspects of the current state of the environment and the evolution of that environment without implementation of the plan or programme	Section 4
(C) Description of the environmental characteristics of areas likely to be significantly affected	Sections 4, 7 and 8
(D) Identification of any existing environmental problems which are relevant to the plan or programme, particularly those relating to European Sites	Section 4
(E) List environmental protection objectives, established at international, EU or National level, which are relevant to the plan or programme and describe how those objectives and any environmental considerations have been taken into account when preparing the Plan	Sections 5, 7, 8 and 9
(F) Describe the likely significant effects on the environment	Sections 7 and 8
(G) Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan or programme	Section 9
(H) Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties)	Sections 6, 7 and 8
(I) A description of proposed monitoring measures	Section 10
(J) A non-technical summary of the above information	Non-Technical Summary
(K) Interrelationships between each environmental topic	Addressed as it arises within each Section

Section 4 Environmental Baseline

4.1 Introduction

Reflecting the specifications in the SEA Directive, the relevant aspects of the current state of the environment are identified in this section.

4.2 National Reporting on the Environment

The EPA's "*Ireland's Environment - An Assessment 2016*" report provides an integrated assessment of the overall quality of Ireland's environment, the pressures being placed on it and the societal responses to current and emerging environmental issues. This report has informed various parts of the environmental baseline provided below. The key environmental challenges or messages identified by the report are:

Environment and Health and Wellbeing

Recognising the benefits of a good quality environment to health and wellbeing.

Climate Change

Accelerating mitigation actions to reduce greenhouse gas emissions and implement adaptation measures to increase resilience in dealing with adverse climate impacts.

Implementation of Legislation

Improving the tracking of plans and policies and the implementation and enforcement of environmental legislation to protect the environment.

Restore and Protect Water Quality

Implementing measures that achieve ongoing improvement in the environmental status of water bodies from source to the sea.

Sustainable Economic Activities

Integrating environmental sustainability ideas and performance accounting across economic sectors and sectoral plans should be a key policy for growth.

Nature and Wild Places

Protecting pristine and wild places that act as biodiversity hubs, contributing to health and wellbeing, and providing tourism opportunities

Community Engagement

Informing, engaging and supporting communities in the protection and improvement of the environment.

4.3 Sustainable Development Goals

Implementation of the Plan will contribute towards efforts to achieve a number of the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development, which were adopted by world leaders in 2015 at a United Nations Summit and came into force in 2016. These Goals include:

- Goal 3. Ensure healthy lives and promote well-being for all at all ages.
- Goal 6. Ensure availability and sustainable management of water and sanitation for all.
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all.
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.
- Goal 12. Ensure sustainable consumption and production patterns.
- Goal 13. Take urgent action to combat climate change and its impacts.
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

4.4 Likely Evolution of the Environment in the Absence of the Plan

The Plan includes various provisions that would be likely to improve environmental protection and sustainable development. In the absence of the Plan, the framework for environmental protection and sustainable development would be less comprehensive. The positive effects identified by this assessment, including the following, would not occur as a result of the Plan:

- Contribution towards the protection of ecology by facilitating the development of well-serviced lands with relatively low levels of sensitivities,

thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development.

- Contribution towards the protection of biodiversity including listed species, ecological connectivity and non-designated habitats.
- Contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, such as water and soil.
- Contribution towards the protection of human health as a result of protection of environmental vectors, including soil, water and air.
- Contribution towards protection of human health with respect to the timely provision of water services and the provision of transport infrastructure integrated with land use planning - and associated interactions with sustainable mobility, emissions and energy usage.
- Contribution towards the protection of soil and interrelated environmental components by not hindering ongoing monitoring at Ballyogan landfill and continuance of established and additional appropriate uses at the landfill.
- Contribution towards the protection of soil by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development.
- Contribution towards the protection of water by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development.
- Contributions towards the protection of water resources including the status of surface and groundwaters and water based designations.
- Contribution towards flood risk management.
- By facilitating the development of lands well-serviced by public transport (Luas and bus), improving permeability and providing for extensions to the off road cycle and pedestrian network, the Plan will facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes. These improvements would contribute towards the following positive effects:
 - Reductions in/limits in increases of greenhouse gas emissions and associated achievement of legally binding greenhouse gas emissions targets;
 - Reductions in/limits in increases of all emissions to air and associated achievement of air quality objectives, thereby contributing towards improvement or air quality and protection of human health;
 - Increases in consumption of renewable energy sources; and
 - Reductions in/limits in increases of energy use.
- Contribution towards the provision of water services by Irish Water by facilitating the development of well-serviced lands, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the County and

beyond and contributing towards sustainable development.

- Contributes towards the use of existing and planned infrastructure including water services, transport, energy and drainage infrastructure.
- Facilitates the development of lands well-serviced by public transport (Luas and bus), improves permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth, limiting urban sprawl and helping to avoid the need to develop less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development
- Contribution towards protection of cultural heritage.
- Contribution towards the protection of landscape by facilitating development within existing settlements.
- Contribution towards the protection of existing amenities.

The Plan includes various provisions that would have the potential to result in significant adverse environmental effects, if unmitigated. The potential significant adverse effects identified by this assessment, including the following, would not occur as a result of the Plan:

- Loss of/damage to biodiversity in designated sites, 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 bats.
- Spatially concentrated deterioration in human health if effects arising from environmental vectors such as air and water.
- Adverse impacts such as those relating to subsidence or contamination arising from development provided for by the Plan at the historic Ballyogan landfill.
- Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces.
- Adverse impacts upon the status of water bodies and entries to the WFD Register of Protected Areas arising from changes in quality, flow and/or morphology.
- Increase in the risk of flooding.
- Emissions to air including greenhouse gas emissions and other emissions.
- Failure of development to be accompanied by adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).
- Increases in waste levels.
- Potential effects on protected and unknown archaeology and protected architecture.

- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

4.5 Biodiversity and Flora and Fauna

4.5.1 Key Ecological Sensitivities

Key ecological sensitivities comprise:

- Mature trees or stands of trees and hedgerows (such as at Glencairn, to the east of Kilgobbin Road, to the south of Larkfield and at Stepside Golf Course) that have the potential to support bird and bat species; and
- Watercourses and their associated riparian habitats and species (such as trout), including:
 - The Ballyogan Stream and its tributaries that drain most of the Plan area from the Kilgobbin Road to the Carrickmines M50 junction;
 - The Racecourse Stream that flows along the south western boundary of the Ballyogan North neighbourhood area and joins with the Ballyogan Stream to the immediate east of the Plan area to become the Carrickmines River; and
 - The Golf Stream, which forms part of the Plan areas south eastern boundary and joins with the Ballyogan and Racecourse Streams to the immediate east of the Plan area to become the Carrickmines River.

4.5.2 European Sites

European Sites comprise:

- Special Areas of Conservation⁴ (SACs), including candidate SACs; and

⁴ 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

- Special Protection Areas⁵ (SPAs).

The SEA uses the same zone of influence that is used by the AA. The Department of the Environment, Heritage and Local Government (2009) Guidance on Appropriate Assessment recommends a 15 km buffer zone be considered around the site. It is foreseen that in the absence of significant hydrological links the characteristics of the Plan will not impose effects beyond this 15 km zone of influence.

There are 17 European Sites (11 SACs and 6 SPAs) within 15 km of the Plan boundary and none of them are located within or adjacent to the Plan area. These sites are listed on Table 4.1 and mapped on Figure 4.1.

Table 4.1 European Sites within 15 km of the Plan area

European Sites		
Designation	Code	Site Name
SAC	000199	Baldoyle Bay
	000202	Howth Head
	000206	North Dublin Bay
	000210	South Dublin Bay
	000713	Ballyman Glen
	000714	Bray Head
	000719	Glen of the Downs
	000725	Knocksink Wood
	001209	Glenasmole Valley
	002122	Wicklow Mountains
	003000	Rockabill to Dalkey Island
SPA	004006	North Bull Island
	004016	Baldoyle Bay
	004024	South Dublin and River Tolka Estuary
	004113	Howth Head Coast
	004172	Dalkey Islands

For more detail on European Sites please refer to the AA document that accompanies the Plan and this SEA Environmental Report.

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.

⁵ 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 European Union.

4.5.3 Natural Heritage Areas and Proposed Natural Heritage Areas

Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

There are no Areas likely to contain Annex I Habitats (see also Section 4.5.5) occurring inside the Plan boundary; however, one of these areas is indicated to the south-west of the Plan area. The CORINE 2018 mapping identifies the land cover of the area as land principally occupied by agriculture with areas of natural vegetation.

There are no NHAs, pNHAs occurring inside the Plan boundary. The closest pNHA to the Plan area is at Dingle Glen, less than 1 km to the south east of the Plan area. All pNHAs in the vicinity of the Plan area are listed on Table 4.2 below and mapped on Figure 4.2.

Table 4.2 pNHAs within 15 km of the Plan area

Proposed Natural Heritage Areas		
Designation	Code	Site Name
pNHA	000128	Liffey Valley
	000178	Santry Demense
	000199	Baldoyle Bay
	000201	Dolphins, Dublin Docks
	000202	Howth Head
	000206	North Dublin Bay
	000210	South Dublin Bay
	000713	Ballyman Glen
	000714	Bray Head
	000719	Glen of the Downs
	000724	Kilmacanoge Marsh
	000725	Knocksink Wood
	000991	Dodder Valley
	001202	Ballybetagh Bog
	001205	Boosterstown Marsh
	001206	Dalkey Coastal Zone and Killiney Hill
	001207	Dingle Glen
	001209	Glenasmole Valley
	001211	Loughlinstown

Proposed Natural Heritage Areas		
		Woods
	001212	Lugmore Glen
	001753	Fitzsimon's Wood
	001754	Dargle River Valley
	001755	Glencree Valley
	001767	Powerscourt Waterfall
	001768	Powerscourt Woodland
	001769	Great Sugar Loaf
	002103	Royal Canal
	002104	Grand Canal

4.5.4 Habitat Mapping⁶

The findings of a Habitat Mapping Survey undertaken for parts of the Council's administrative area were prepared in 2007. This Heritage Council classification scheme used by the survey covers natural, semi-natural and artificial habitats of terrestrial, freshwater and marine environments and of rural and urban areas. Habitat categories are arranged within a series of ordered groupings to produce a hierarchical framework that operates on three levels. The scheme identifies 11 broad habitat groups (Level 1), 30 habitat subgroups (Level 2), and 117 separate habitats (Level 3).

Habitats identified by the survey within the Plan area (see Figure 4.3) include spoil and bare ground, improved agricultural grassland, mixed broadleaved woodland, improved amenity grassland and recolonising bare ground.

4.5.5 Land Cover Mapping

CORINE⁷ land cover mapping for the Plan area is shown on Figure 4.4.

⁶ White Young Green for Dún Laoghaire-Rathdown County Council (2007) *Habitat Mapping Survey*

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.

Categories from CORINE mapping that indicate areas likely to contain Annex I Habitats include broad-leaved forest, peat bog, natural grassland, water bodies, coastal lagoons, mixed forests, moors and heaths, intertidal flats, beaches dunes sand, inland marshes, stream courses, estuaries, sparsely vegetated areas, burnt areas, salt marshes, bare rocks, transitional woodland scrub and land principally occupied by agriculture with areas of natural vegetation. No such land cover categories are located within the Plan area (see mapping of these categories for surrounding areas on Figure 4.2). There are no Areas likely to contain Annex I Habitats occurring inside the Plan boundary, however one of these areas is indicated to the south-west of the Plan area. The CORINE 2018 mapping identifies the land cover of the area as land principally occupied by agriculture with areas of natural vegetation.

4.5.6 Register of Protected Areas

In response to the requirements of the Water Framework Directive a number of water bodies or parts of water bodies that must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on Registers of Protected Areas (RPAs).

The groundwater underlying the Plan area is part of the wider groundwater area relating to drinking water sources.

The Ballyogan Stream, the Racecourse Stream and the Golf Stream, all contribute to Carrickmines River (to the south of the Plan area), which is included on the RPA for Salmonid species.⁸

4.5.7 Other Designations

Other designations mapped on Figure 4.2 include Nature Reserves and National Parks. Nature Reserves are areas of importance to wildlife, which is protected under Ministerial order. There are currently 78 Statutory Nature Reserves in Ireland. Most are owned by the State but some are owned by organisations or private landowners. The closest Nature Reserve to the Plan area is at Knocksink,

approximately 5 km to the south of the Plan area. National Parks are specially designated protected areas of unspoilt beauty and there are six located in Ireland. The primary purpose of the National Parks is the conservation of biodiversity and landscape, however they also provide for recreational space for locals and visitors. The Wicklow National Park is located approximately 5 km to the south of the Plan area.

4.5.8 Existing Problems

Previous developments within the Plan area have resulted in loss of biodiversity and flora and fauna however legislative objectives governing biodiversity and flora and fauna were not identified as being currently conflicted with. The Local Area Plan includes robust measures to contribute towards the protection of biodiversity and flora and fauna.

⁸ The Carrickmines (Glenamuck) / Shanganagh system is a regionally important Salmonid system. The Carrickmines system supports a resident population of Brown Trout and a migratory population of Sea Trout.

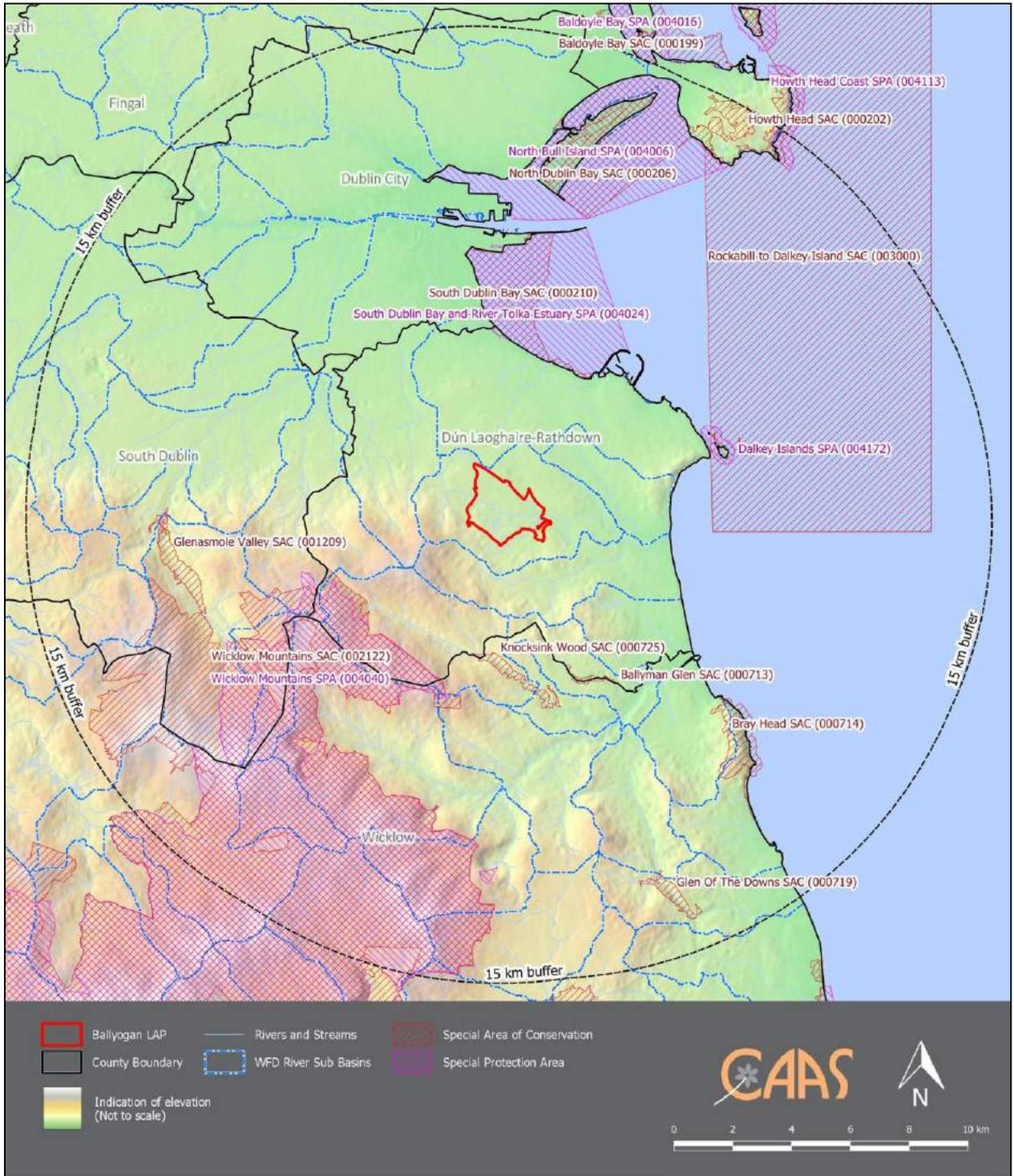


Figure 4.1 European Sites within 15 km buffer of Ballyogan and Environs Plan area

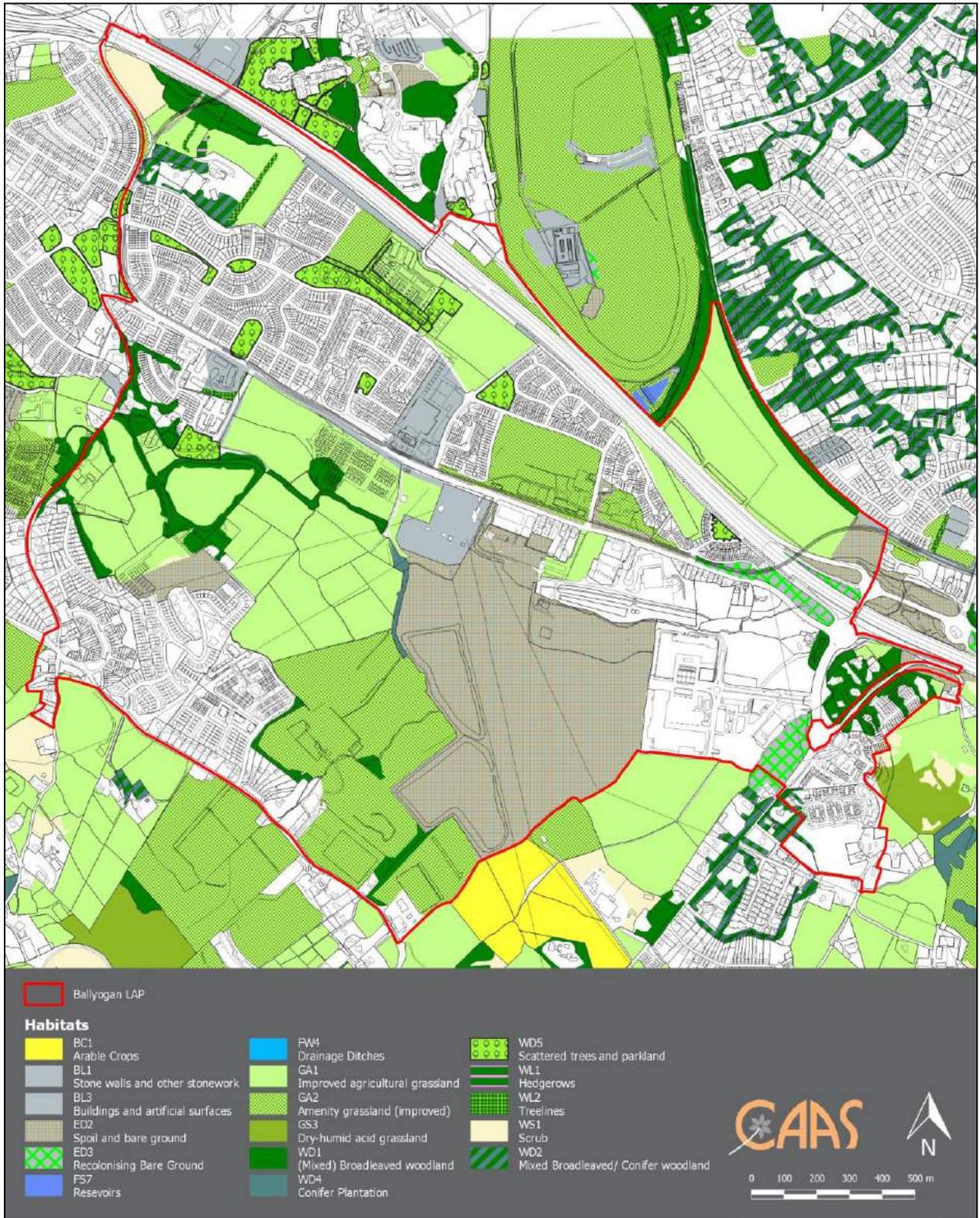


Figure 4.3 Habitat Mapping⁹

⁹ Mapping based on White Young Green for Dún Laoghaire-Rathdown County Council (2007) *Habitat Mapping Survey*

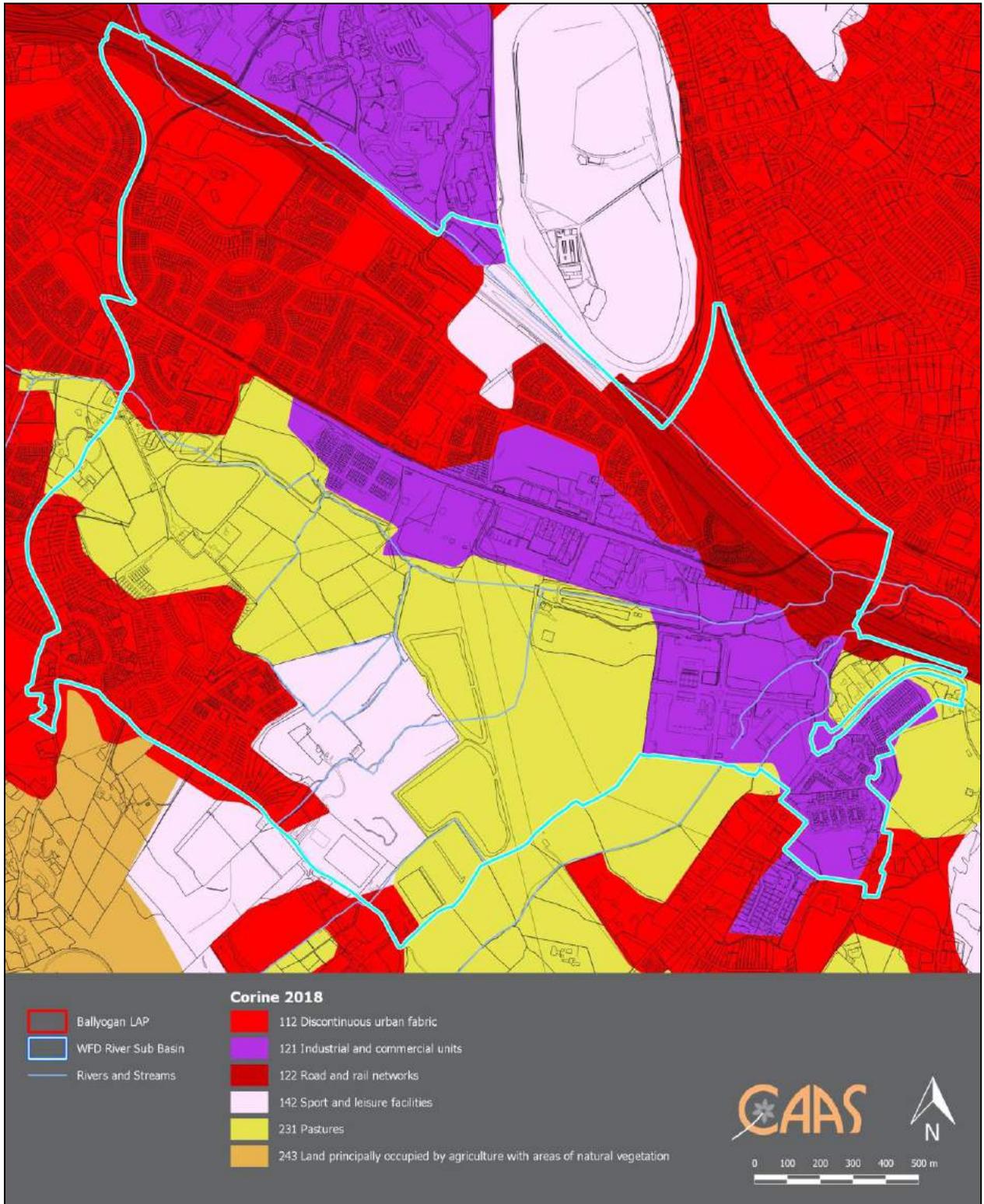


Figure 4.4 CORINE Land Cover Mapping 2018

4.6 Population and Human Health

4.6.1 Population¹⁰

In the 2016 Census, the Ballyogan and Environs Plan area had a population of just over 9,500 persons, which equates to 4.4% of Dún Laoghaire-Rathdown's population. The population of this area has been growing rapidly and consistently over the past 30 years, and has a very young profile.

The current spread of population densities across the Plan area varies considerably, with 3 broad clusters of population, located in the following Neighbourhoods:

- West - Stepside Central and Stepside East;
- East - Old Glenamuck Road; and
- North - Kilgobbin North, through Glencairn South and Mimosa-Levmoss to Ballyogan North.

The highest population density at Neighbourhood level has been achieved at Kilgobbin North.

Capacity for additional population growth, based on availability of zoned lands, indicates a potential increase - from the 2016 (Census) baseline - of 4,300 new homes and 12,040 additional people.

The new population provided for in the Plan 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.

4.6.2 Human Health

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

4.6.3 Existing Problems

The greatest health risk from radiation in Ireland is caused by radon. The presence of radon gas, a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils, occurs across the country. It accounts for more than half of the total radiation dose received by the Irish population. As a known carcinogen, in the same category as tobacco smoke and asbestos it is a cause of lung cancer. Exposure to radon for long periods or at high concentrations can lead to lung cancer.

The number of homes within the Plan area with Radon levels above the reference level is within the normal range experienced in other locations across the country¹¹.

4.7 Soil

4.7.1 Introduction

Soil is the top layer of the earth's crust. It is formed by mineral particles, organic matter, water, air and living organisms. Soil can be considered as a non-renewable natural resource because it develops over very long timescales. It is an extremely complex, variable and living medium and performs many vital functions including: food and other biomass production, storage, filtration and transformation of many substances including water, carbon, and nitrogen. Soil has a role as

¹⁰ Ballyogan and Environs Local Area Plan 2019-2025

¹¹ Mapping available at <http://www.epa.ie/radiation/radonmap>

a habitat and gene pool, serves as a platform for human activities, landscape and heritage and acts as a provider of raw materials. Such functions of soil are worthy of protection because of their socio-economic as well as environmental importance. Soils in any area are the result of the interaction of various factors, such as parent material, climate, vegetation and human action.

To date, there is no legislation which is specific to the protection of soil resources. However, there is currently an EU Thematic Strategy on the protection of soil which includes a proposal for a Soil Framework Directive which proposes common principles for protecting soils across the EU.

4.7.2 Soil Types

The majority of the Plan area is covered by urban soils that 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. Urban soils have a combination of characteristics that differ from natural soils. These characteristics are due to alterations in both physical and chemical soil properties that cause long-term deviation from the natural state.

Other soils in the Plan area consist of:

- Lithosols¹² in the north and south-western parts of the Plan area;
- Brown earths¹³ to the north and south-east of the Plan area; and
- Alluvial soils¹⁴ in the central part of the Plan area.

4.7.3 County Geological Sites

The audit of County Geological Sites (CGSs)¹⁵ in Dún Laoghaire - Rathdown was completed in 2014. County Geological Sites do not

¹² Lithosols are shallow non-calcareous soils, commonly overlying hard rock or skeletal and gravelly material. They tend to be stony soils, or with shattered bedrock and are associated with frequent rock outcrops.

¹³ Brown earths are well drained mineral soils, associated with high levels of natural fertility.

¹⁴ These are associated with alluvial (clay, silt or sand) river deposits.

¹⁵ Sites that are appraised, but which are not selected for NHA designation, are classified as 'County Geological Sites', as recognised in the National Heritage Plan (2002). This enables their integration into county development plans. Nineteen County or Local Authority areas are now complete and the reports are available on www.gsi.ie.

receive statutory protection like Natural Heritage Areas but receive an effective protection from their inclusion in the planning system. CGSs identified by the audit are included in Dún Laoghaire-Rathdown County Development Plan 2016-2022.

There are 12 County Geological Sites in Dún Laoghaire-Rathdown; however, none of these sites are located within the Plan area. The closest sites are located approximately 1-1.5 km from the Plan area to the south-west (Three Rock Mountain) and to the south (Ballycorus, Carrickgollogan, The Scalp, Ballybetagh Bog and Glencullen River).

4.7.4 Contaminated Soil

Given the urban nature of Dublin and the range of land use activities that have taken place historically, the soils of various areas have been contaminated in the past. Such contamination has the potential to affect water quality, biodiversity and flora and fauna and human health. Where brownfield redevelopment is proposed, adequate and appropriate investigations are required to be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work.

4.7.5 Ballyogan Landfill

The former Ballyogan Landfill (EPA Licence no. W0015-01) is located in Jamestown Park, in the south-east of the Plan area. The landfill was decommissioned in 2005 and remediation works at the site have been completed.

Ballyogan landfill is representative of many landfill sites in Ireland that have reached the aftercare phase. In addition to this, it is a landfill that has come under strong urban influence since its establishment with extensive residential and commercial development having taken place in its vicinity.¹⁶

4.7.6 Existing Problems

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

¹⁶ EPA (July 2017) *Beneficial Use of Old Landfills as a Parkland Amenity (including case study on the Ballyogan Landfill Conversion to Parkland Amenity)*

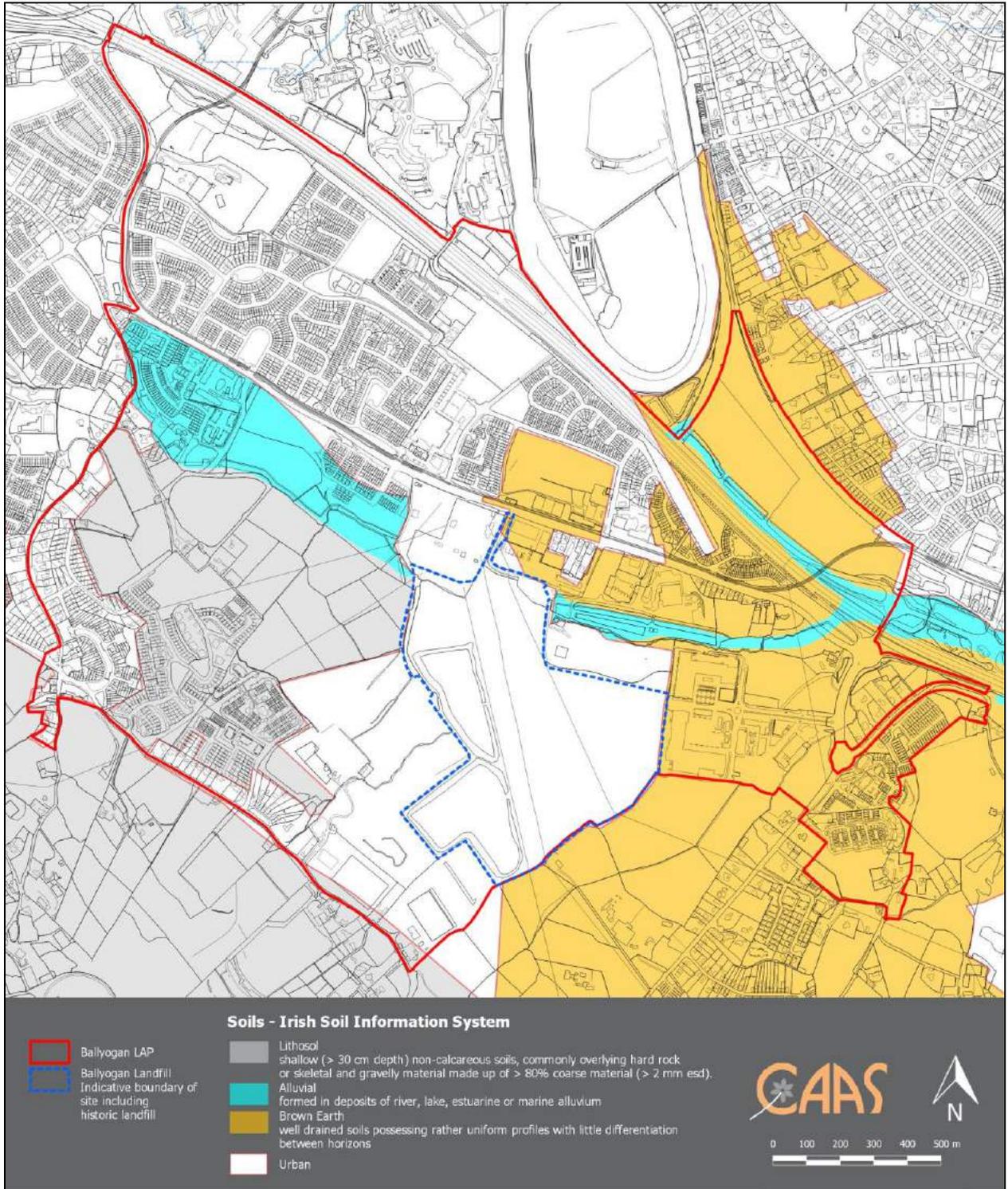


Figure 4.5 Soils

4.8 Water

4.8.1 The Water Framework Directive

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 which are currently unpolluted and improve polluted water bodies to *good status*.

Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the River Basin Management Plan (RBMP).

The EU's Common Implementation Strategy Guidance Documents No. 20 and 36 provide guidance on exemptions to the environmental objectives of the WFD.

For the purpose of assessment, reporting and management, water is divided into groundwater, rivers, lakes, estuarine waters and coastal waters which are in turn divided into specific, clearly defined water bodies.

4.8.2 Zone of Influence

The Zone of Influence of the Plan beyond the Ballyogan and Environs Plan area with respect to impacts upon waters can be estimated to be all bodies of groundwater and all surface waters downstream areas of catchments¹⁷ which drain the Plan area.

¹⁷ A catchment is an area of land contributing to a waterbody, with all the water ultimately running off to a single outlet. The WFD requires water quality management to be based on natural river catchments i.e.

4.8.3 Surface Water Drainage

River Basin Districts have been sub-divided into a number of Water Management Units (WMU) or geographical sub-units of a river basin. The entire Plan area is located within the Shanganagh WMU.

The surface water from the Plan area drains to three local catchment streams – Ballyogan Stream, Racecourse Stream and Golf Stream. The catchments of Ballyogan Stream and Racecourse Stream are effectively divided along the Ballyogan Road axis while the catchment of Golf Stream covers the southern and eastern extents of the Plan Area. These streams are component parts of the wider Carrickmines/Shanganagh River system and converge in and around the M50 Carrickmines Interchange. Surface water from future development in the Plan area will, for all intents and purposes, drain to these main catchment systems.¹⁸

4.8.4 Surface Water Status

The WFD defines 'overall surface water status' as the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Thus, in order to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.

The ecological status is an expression of the structure and functioning of aquatic ecosystems associated with surface waters. Such waters are classified as of 'good ecological status' when they meet Directive requirements.

Chemical Status is a pass/fail assignment with a failure defined by a face-value exceedance of an Environmental Quality Standards (EQS) for one or more Priority Action Substances (PAS) listed in Annex X of the Water Framework Directive (WFD). The EQS values for individual PAS substances are set at European level. Good surface water chemical status means that concentrations of pollutants in the water body do not exceed the

by reference to the natural, environmental unit rather than by reference to administrative or legal boundaries, which often fragment river catchments.

¹⁸ *Ballyogan and Environs Local Area Plan 2019-2025*

environmental limit values specified in the Directive.

The current ecological and overall status of the Carrickmines River (associated with Shanganagh WMU) is *moderate*. Stretches of the Racecourse, the Ballyogan and the Golf Streams (which join to form the Carrickmines River in the eastern parts of the Plan area) are also identified by the EPA as being of *moderate status*. Subject to exemptions provided for by Article 4 of the WFD, these water bodies will need improvement in order to comply with the objectives of the WFD.

The EPA diffuse model (2008) identified that the Carrickmines River is 'at risk'¹⁹ from *diffuse risk sources*, such as *road wash - total hydrocarbons*, which are having an impact on water status of the river. The overall WFD objective for the Carrickmines River is 'to restore at least good status objective by 2021'²⁰.

Figure 4.6 illustrates the WFD surface water status within and surrounding the Plan area.

4.8.5 Groundwater Status

Groundwater is stored in the void spaces in underground layers of rock, or aquifers. These aquifers are permeable, allowing both the infiltration of water from the soils above them and the yielding of water to surface and coastal waters. Groundwater is the part of the subsurface water that is in the saturated zone - the zone below the water table, the uppermost level of saturation in an aquifer at which the pressure is atmospheric, in which all pores and fissures are full of water.

For groundwater bodies, the approach to classification is different from that for surface water. For each body of groundwater, both the chemical status and the quantitative must be determined. Both have to be classed as

either *good* or *poor*. The WFD sets out a series of criteria that must be met for a body to be classed as good chemical and quantitative status.

The WFD status (2010-2015) of all groundwater underlying the Ballyogan and Environs Plan area and is identified as being of *good status*, meeting the objectives of the WFD.

4.8.6 Aquifer Vulnerability

The Geological Survey of Ireland (GSI) rates groundwaters according to both their productivity and vulnerability to pollution. The Plan area is underlain by a poor bedrock aquifer (unproductive except for local zones).

Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The aquifer underlying most the Plan area is classified as being of *high vulnerability* and *extreme vulnerability* and *rock at or near surface or Karst* in some parts of the Plan area (Kilgobbin West, Stepside East, Glencairn North, Mimosa-Levmoss, Racecourse South and south-east of Carrickmines).

4.8.7 WFD Registers of Protected Areas

The WFD requires that Registers of Protected Areas (RPAs) are compiled for a number of water bodies or part of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife. The WFD requires that these RPAs contain: areas from which waters are taken for public or private water supply schemes; designated shellfish production areas; bathing waters; areas which are affected by high levels of substances most commonly found in fertilizers, animal and human wastes - these areas are considered nutrient sensitive; areas designated for the protection of habitats or species e.g. Salmonid areas; Special Areas of Conservation (SACs); and, Special Protection Areas (SPAs).

The groundwater underlying the Plan area is part of the wider groundwater area relating to drinking water sources.

The Ballyogan Stream, the Racecourse Stream and the Golf Stream, all contribute to Carrickmines River (to the south of the Plan

¹⁹ The risk that a waterbody will not achieve good ecological or good chemical status/potential at least by 2015. To examine risk the various pressures acting on the waterbody were identified along with any evidence of impact on water status. Depending on the extent of the pressure and its potential for impact, and the amount of information available, the risk to the water body was placed in one of four categories: at risk; probably at risk; probably not at risk; not at risk.

²⁰ Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

area), which is included on the RPA for Salmonid species.²¹

4.8.8 Flooding

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Plan, SEA and SFRA has taken place concurrently and the findings of the SFRA have informed both the Plan and the SEA.

The CFRAM study has identified parts of the Plan area that are at risk of flooding including:

- Lands between Kilgobbin West and Kilgobbin North, near Kilgobbin Road;
- Lands between Kilgobbin East and Kilgobbin South, between Phase 1 and the proposed Phase 2 of the Clay Farm lands; and
- The north-eastern corner of The Park Carrickmines, and the area immediately upstream within Ballyogan South.

4.8.9 Existing Problems

The status of a number of water bodies within the Plan area will need improvement to achieve the Water Framework Directive's overall objective of good status.

There are a number of areas within the Plan area that are at elevated levels of flood risk.

²¹ The Carrickmines (Glenamuck) / Shanganagh system is a regionally important Salmonid system. The Carrickmines system supports a resident population of Brown Trout and a migratory population of Sea Trout.

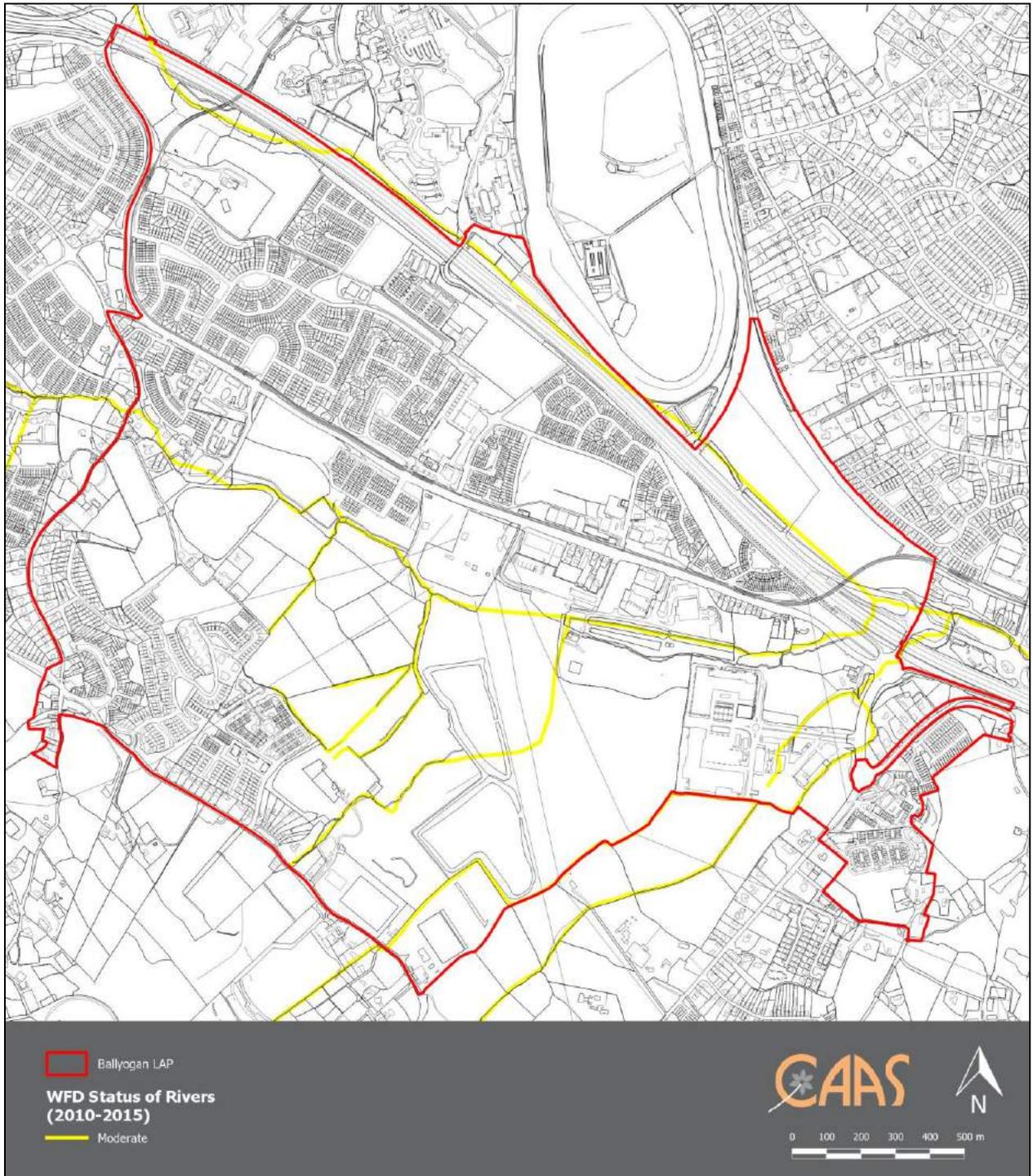


Figure 4.6 Surface Water Status (2010-2015)

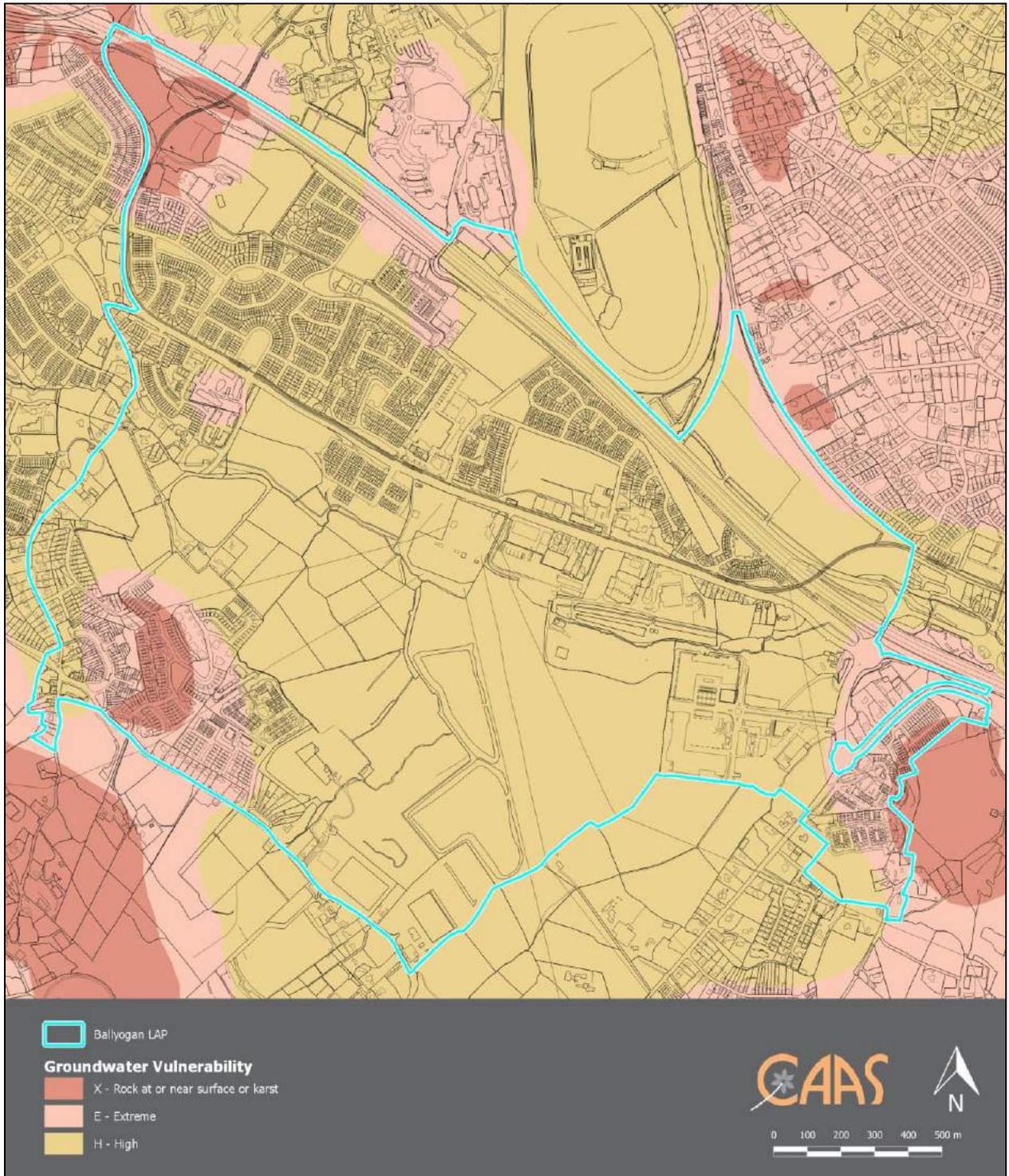


Figure 4.7 Groundwater Vulnerability

4.9 Air and Climatic Factors

4.9.1 Overview

By facilitating the development of lands well-served by public transport (Luas and bus), improving permeability and providing for extensions to the off road cycle and pedestrian network, the Plan will facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes. These improvements would contribute towards the following positive effects:

- Reductions in/limits in increases of greenhouse gas emissions and associated achievement of legally binding greenhouse gas emissions targets;
- Reductions in/limits in increases of all emissions to air and associated achievement of air quality objectives, thereby contributing towards improvement or air quality and protection of human health;
- Increases in consumption of renewable energy sources; and
- Reductions in/limits in increases of energy use.

4.9.2 Greenhouse Gas Emissions

The key issue involving the assessment of the effects of implementing the Plan on climatic factors relates to greenhouse gas emissions arising from transport. Interactions are also present with flooding (see Section 4.8.8).

The Plan facilitates improvements in sustainable mobility, thereby facilitating reductions in and limiting increases of greenhouse gas emissions. Such emissions would occur otherwise with higher levels of motorised transport and associated traffic.

Ireland's Provisional Greenhouse Gas Emissions 1990-2017 (EPA, 2018) details provisional estimates of greenhouse gas emissions for the period 1990-2017. For 2017, total national greenhouse gas emissions are estimated to be 60.75 million tonnes carbon dioxide equivalent (Mt CO₂eq). This is 0.9%

lower (0.53 Mt CO₂eq) than emissions in 2016. Greenhouse gas emissions from the Transport sector decreased by 2.4% or 0.29 Mt CO₂eq in 2017. This is the first year of decreased emissions after four successive years of increases in transport emissions. In road transport in 2017, petrol use continued to decrease by 9.8% while diesel use increased by 0.4% and biofuels use increased by 35.6%.

The EPA 2018 publication *Ireland's Greenhouse Gas Emission Projections 2017-2035* provides an assessment of Ireland's progress towards achieving its emission reduction targets set down under the EU Effort Sharing Decision (Decision No 406/2009/EC) for the years 2013-2020 and a longer term assessment based on current projections. Ireland's 2020 target is to achieve a 20% reduction of non-Emission Trading Scheme (non-ETS) sector emissions (i.e. agriculture, transport, the built environment, waste and non-energy intensive industry) on 2005 levels with annual limits set for each year over the period 2013-2020. Key Insights identified as part of the report's package of documents are that:

- Latest EPA greenhouse gas emissions projections indicate an overall increase in greenhouse gas emissions from most sectors. The projected growth in emissions is largely underpinned by projected strong economic growth and relatively low fuel prices leading to increasing energy demand over the period.
- The positive impact on emissions of existing and planned policies and measures is tempered by the strong economic outlook and associated increase in energy demand.
- Ireland is not projected to meet 2020 emissions reduction targets and is not on the right trajectory to meet longer term EU and national emission reduction commitments.
- Fossil fuels such as coal and peat continue to be key contributors to emissions from the power generation sector and the extent of their use will be a key determinant in influencing future emissions trends from this sector.
- A strong growth in emissions projections from the transport sector is attributed to a rise in fuel consumption particularly for diesel cars and diesel freight up to 2025. A

projected accelerated deployment of electric vehicles between 2025 and 2030 does however result in a projected decline in emissions during this period.

- Agriculture emissions are projected to continue to grow steadily over the period. This is based on an updated outlook which sees an increase in animal numbers particularly for the dairy herd.
- The gap between the two scenarios – With Existing Measures and With Additional Measures – is narrowing over the period to 2020 indicating that mitigation options in the short-term are largely established.
- These projections do not consider the impact of policies and measures that form part of the recently announced National Development Plan or the full impact of policies and measures included in the National Mitigation Plan. It is anticipated that additional impact will be provided to the EPA by relevant Government Departments and Agencies and included in the 2019 Emission Projections.

The contribution by the transport sector to Ireland's greenhouse gas emissions highlights the need for a concerted effort to reduce transport emissions. In the transport sector, emissions are projected to increase from current levels by 14-15% by 2020, peaking at 24-26% in 2025, and falling to by 18-21% by 2030. The projected decline in emissions from 2025 to 2030 is due to the assumption of an acceleration in the number of electric vehicles on Irish roads. After 2030, emissions from transport are projected to start increasing again.

Ireland's National Policy position is to reduce CO₂ emissions in 2050 by 80% on 1990 levels across the Energy Generation, Built Environment and Transport sectors, with a goal of Climate neutrality in the Agriculture and Land-Use sector. The 2016 emissions for all of these sectors are rising, making achievement of long-term goals more difficult.

The National Mitigation Plan (Department of Communications, Climate Action and Environment, 2017), represents an initial step to set Ireland on a pathway to achieve the level of decarbonisation required. It is a whole-of-Government Plan, reflecting in particular the central roles of the key Ministers

responsible for the sectors covered by the Plan – Electricity Generation, the Built Environment, Transport and Agriculture, as well as drawing on the perspectives and responsibilities of a range of other Government Departments.

The National Adaptation Framework (Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The National Adaptation Framework outlines a whole of government and society approach to climate adaptation. Under the Framework a number of Government Departments will be required to prepare sectoral adaptation plans in relation to a priority area that they are responsible for. Dún Laoghaire-Rathdown County Council has joined together with Dublin's three other local authorities to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. These Plans are scheduled to be adopted in 2019.

4.9.3 Ambient Air Quality

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. These pollutants are generated through fuel combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well-being of the areas inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

The principles to this European approach are set out in the Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) (which replaces the earlier Air Quality Framework Directive 1996 and the first, second and third *Daughter Directives*; the fourth *Daughter Directive* will be included in CAFE at a later stage).

In order to comply with the directives mentioned above, the EPA measures the levels of a number of atmospheric pollutants. For the purposes of monitoring in Ireland, four zones are defined in the Air Quality Standards Regulations 2002 (SI No. 271 of 2002).

The EPA's (2018) *Air Quality in Ireland 2017* identifies that:

- No levels above the EU limit value were recorded at any of the ambient air quality network monitoring sites in Ireland in 2017;
- The tighter World Health Organisation (WHO) guideline values were exceeded at a number of monitoring sites for particulate matter (PM₁₀ and PM_{2.5}), ozone and NO₂; and
- 2017 dioxin survey shows that concentrations of dioxins and similar pollutants remain at a consistently low level in the Irish environment.

Air pollution from transport is dominated by NO_x emissions. Of these, NO₂ is particularly impactful from a health perspective. The report describes that concentrations of NO₂ at urban areas in Ireland are close to the EU annual limit value. The potential implications for air quality with increases in traffic numbers or from certain weather conditions unfavourable to dispersion of pollutants could result in exceedances of the EU limit value.

The EPA's report states that:

- "Short-term exposure to NO₂ is linked to adverse respiratory effects including airway inflammation in healthy people and increased respiratory symptoms in asthmatics"; and
- "Long-term exposure is associated with increased risk of respiratory infection in children. NO_x is a major precursor in the formation of ground level ozone. It is also a major precursor in the formation of photochemical 'smog'."

With regards to solutions, the report identifies possible actions that could help improve and maintain local air quality. These include:

- Any shift from the burning of solid fuel to cleaner, more energy efficient methods of home heating which will result in cleaner air quality for the consumer, their family and neighbours with a resultant improvement in their health; and
- A transition in modes of transport away from the use of the private diesel and petrol powered motor cars to alternative modes of transport such as walking, cycling and forms of

transport that are environmentally friendly and sustainable such as electric motor powered vehicles. This is especially important in our at-risk urban environments.

The Plan facilitates improvements in sustainable mobility, thereby facilitating reductions in and limiting increases of emissions to air. Such emissions would occur otherwise with higher levels of motorised transport and associated traffic.

4.9.4 Noise

Noise is unwanted sound. The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing EU policy on noise reduction from source. The Directive requires competent authorities in Member States to:

- Draw up *strategic noise maps* for major roads, railways, airports and agglomerations, using harmonised noise indicators²² and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels;
- Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and,
- Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.

In compliance with the Directive and transposing Environmental Noise Regulations (S.I. No. 140 of 2006), Noise Action Plans have been prepared for each local authority area within the country. These action plans address the agglomeration of Dublin and major roads, railways and airports. The Action Plans include noise mapping and are required to include measures to manage noise issues and effects, including noise reduction if necessary.

Noise mapping from the EPA's third round of strategic noise mapping of roads and rail, in the form of noise contours for the L_{den} (day,

²² L_{den} (day-evening-night equivalent level) and L_{night} (night equivalent level)

evening, night; a measurement over 24 hours) period harmonised noise indicator, is provided on Figure 4.8.

As is the case with many areas across County Dublin, the M50 motorway is the dominant noise source within the Plan area. Other sources of noise include the Luas and local road networks.

4.9.5 Energy Consumption

Travel is a significant source of energy use (42.2% of Total Final Energy Consumption in Ireland in 2015 was taken up by transport, the largest take up of any sector)²³.

The use of alternative fuels, including electricity, forms a significant part of government policy to reduce transport emissions. The Plan facilitates a mode shift away from the private car to public transport, walking and cycling and provisions relating to electric vehicles. This will contribute towards reductions in the consumption of non-renewable energy sources and achievement of legally binding renewable energy targets.

By facilitating the development of lands well-served by public transport (Luas and bus), the Plan would contribute towards increases in consumption of renewable energy sources and reductions in/limits in increases of energy use.

4.9.6 Existing Problems

Legislative objectives governing air and climatic factors were not identified as being conflicted with.

The Climate Change Advisory Council's Annual Review 2018 has identified that Ireland will miss 2020 and 2030 emissions reduction targets unless urgent action that leads to tangible and substantial reductions in greenhouse gas emissions is taken. The Plan will, in combination with various plans and programmes, contribute towards reducing greenhouse gas emissions and moving in the direction of these targets.

²³ Sustainable Energy Ireland (2016) *Energy in Ireland 1990 – 2015*

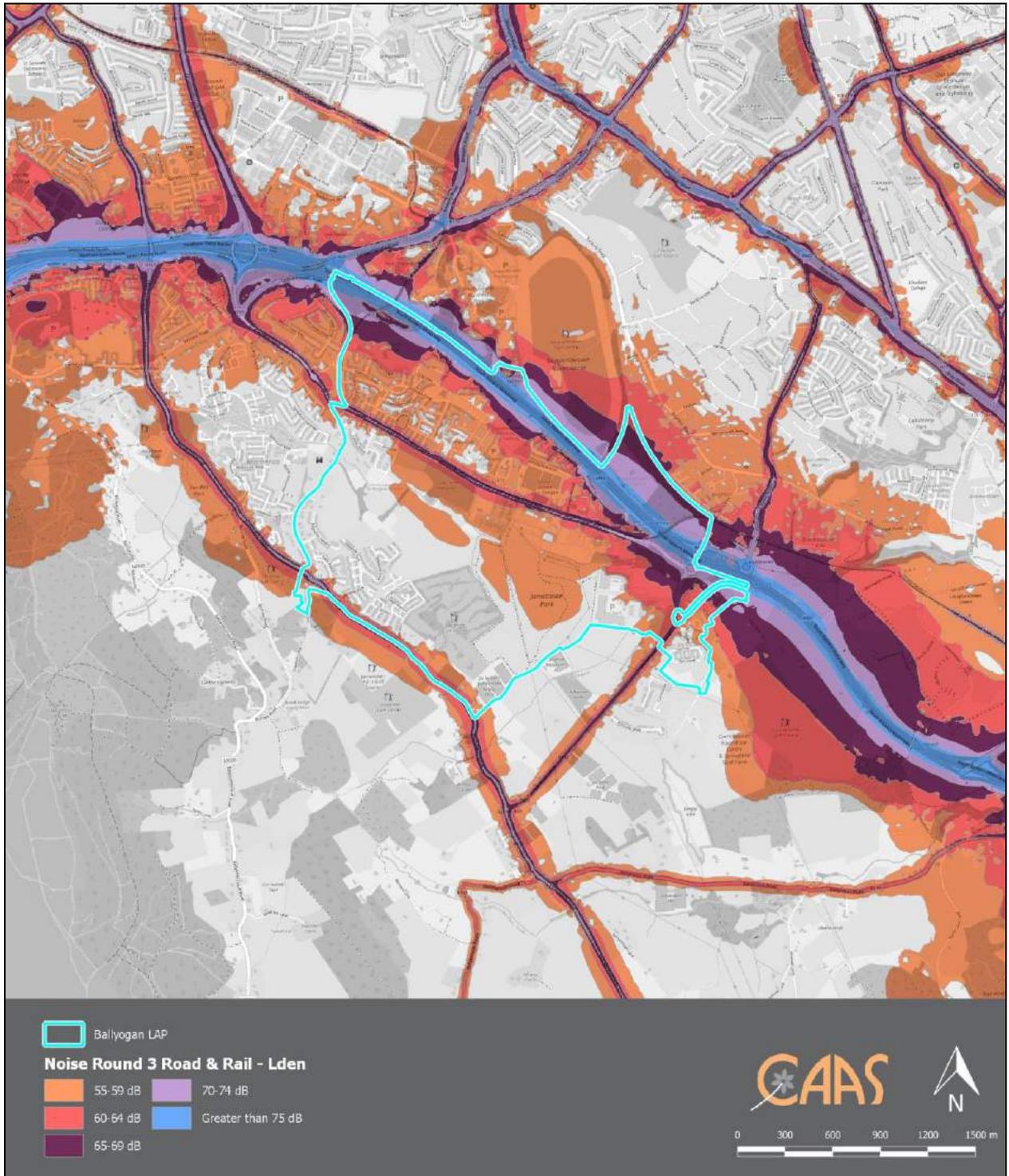


Figure 4.8 Noise Mapping

4.10 Material Assets

4.10.1 Energy Infrastructure

A significant feature of the area is the presence of ESB Networks' Carrickmines 220kV substation in the very centre of the BELAP lands. This substation occupies the western portion of Ballyogan South and effectively borders 5 other Neighbourhoods - Ballyogan North, Leopardstown Valley, Kilgobbin East, Kilgobbin South and Jamestown.

This substation plays a significant role in the national electricity transmission network and - along with Poolbeg, Finglas and Inchicore - forms part of a 'ring' of substations to the east, north, west, and south of Dublin that provide for the 'step down' from long distance 220kV networks to more local 110kV distribution networks.²⁴

4.10.2 Water Services

4.10.2.1 Waste Water

The EPA's 2018 report '*Urban Waste Water Treatment in 2017*' identified that:

- Waste water treatment at 28 of Ireland's 179 large urban areas did not meet relevant standards and improvements are needed at 148 urban areas;
- Raw sewage is released into the environment from 38 urban areas; and
- Significant capital investment to upgrade deficient waste water treatment systems is required to comply with EU standards, improve water quality, and prevent pollution of rivers, lakes and bathing water and to protect shellfish and pearl mussel habitats.

Based on the EPA's assessment of monitoring information provided by Irish Water and the enforcement activities carried out by the EPA, this report identifies urban areas with the most important environmental issues that must be addressed. Waste Water Treatment Plants serving Dún Laoghaire-Rathdown are not currently listed as priority areas, where improvements are required to resolve urgent environmental issues.

²⁴ Ballyogan and Environs Local Area Plan 2019-2025

Wastewater disposal is facilitated by the Ballyogan Sewer – laid in 1996 – which passes through the site from northwest to southeast. This sewer flows to the Shanganagh-Bray Waste Water Treatment Plant, which has significant capacity for additional loading. Shanganagh Waste Water Treatment Plant (WWTP) in 2015 had the capacity to treat a population equivalent (p.e.) of 186,000 and is expandable within the limits of the existing site to 248,000 p.e. The reported load of the WWTP in 2016 was 134,587 p.e. The predicted estimated WWTP load in 2022 is 141,172.²⁵

The Shanganagh-Bray WWTP passed all mandatory Waste Water Treatment Directive related requirements during 2016 and is compliant with the standards set out in the EPA waste water discharge licence and the Urban Waste Water Treatment Regulations.²⁶

The Shanganagh-Bray WWTP discharges to the Southwestern Irish Sea – Killiney Bay of the Shanganagh coastline, which waters are classed as *unpolluted* by the EPA (2010-2015). The WFD Status (2010-2015) of the Irish Sea at Killiney Bay is *high* indicating that the current discharges from the agglomeration are not having deleterious impact on the receiving waters.

The capacity of the existing foul drainage network is generally adequate to satisfy current and future growth; however additional local network infrastructure would be required to build out undeveloped zoned lands.²⁷

Initial discussions with Irish Water indicate that in order to build out the undeveloped zoned lands within the Plan area, some additional local network infrastructure would be required. However, no major infrastructural interventions would be required to 'unlock' development in this area.

4.10.2.2 Water Supply

Within the Plan area and surrounds, water supply is via both the Sandyford High Level Scheme and the Sandyford Low Level Water Scheme, but principally by the Sandyford Scheme. A pumping station adjacent to the

²⁵ EPA (May 2017) *Shanganagh-Bray Wastewater Treatment Works/ Waste water discharge licence review*

²⁶ EPA (May 2017) *Shanganagh-Bray Wastewater Treatment Works/ Waste water discharge licence review*

²⁷ Ballyogan and Environs Local Area Plan 2019-2025

Sandyford LUAS terminal supplies water to a low level reservoir in Dun Gaoithe, Aikens Village and this reservoir provides water to areas in Sandyford, Ballyogan and Carrickmines below the 110 m contour level. An adjacent pumping station in turn supplies water to a high level reservoir near the junction of Burrow Road and Stepside Lane and this reservoir provides water to areas in Sandyford, Stepside and Kiltiernan.

Irish Water is the Agency primarily responsible for the operation of public water services nationally. Dún Laoghaire-Rathdown County Council is committed to working with Irish Water to ensure that the provision of water services will not be a limiting factor in terms of allowing growth within the LAP area. Existing and future populations within the Plan area should continue to have access to adequate high quality clean drinking water. Discussions with Irish Water indicate that the existing water network is generally adequate in order to build out the undeveloped zoned lands within the Plan area. While some additional local network infrastructure may be required, it is not anticipated that any major interventions would be required to enable development in this area.

Under Section 58 of the Environmental Protection Agency Act 1992 the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the Regulations mentioned above.

The most recent EPA Remedial Action List (Q4 of 2018) does not include any water scheme that supplies the Plan area.

4.10.3 Transport

The Plan lands are currently served by four Green Line Luas stops and four bus routes. The National Transport Authority (NTA) are in the process of redesigning and recalibrating the current bus network of Metropolitan Dublin with a focus on simplifying routes, increasing frequencies and optimising the use of interchanging services. The NTA's Transport Strategy for the Greater Dublin Area 2016-

2035 includes a policy to enhance capacity on the Luas Green Line from St. Stephen's Green to Bride's Glen. It is also proposed to extend the Luas Green Line to Bray in the south and Finglas in the north.

4.10.4 Waste Management

The Ballyogan Recycling Park is located within the Plan area at the Ballyogan South neighbourhood. This civic recycling facility is for domestic recycling and disposal. Waste management within the Plan area is guided by the Eastern and Midlands Region Waste Management Plan 2015-2021. The Plan provides a framework for the prevention and management of waste in a sustainable manner in 12 local authority areas, including Dún Laoghaire-Rathdown.

The County Development Plan commits the Council to continue to work in tandem with EU and National policy and the Environmental Protection Agency in the implementation and execution of its waste management responsibilities and duties throughout the duration of the lifetime of the Plan. Development under the LAP will be subject to these provisions.

4.10.5 Existing Problems

The provisions of the Plan will contribute towards protection of the environment with regard to impacts arising from material assets.

4.11 Cultural Heritage

4.11.1 Archaeological Heritage

Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological sites and monuments vary greatly in form and date; examples include earthworks of different types and periods, (e.g. early historic ringforts and prehistoric burial mounds), megalithic tombs from the Prehistoric period, medieval buildings, urban archaeological deposits and underwater features.

The European Convention on Protection of the Archaeological Heritage known as the Valletta Convention of 1992. This was ratified by Ireland in 1997 and requires that appropriate consideration be given to archaeological issues at all stages of the planning and development process.

Archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts.

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.

The term 'monument' includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. All monuments in existence before 1700 A.D. are automatically considered to be historic monuments within the meaning of the Acts. Monuments of architectural and historical interest also come within the scope of the Acts. Monuments include: any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections; any cave, stone or other natural product, whether or not forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or

arranged in position; any, or any part of any, prehistoric or ancient tomb, grave or burial deposit, or, ritual, industrial or habitation site; and any place comprising the remains or traces of any such building, structure or erection, any such cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site, situated on land or in the territorial waters of the State', but excludes 'any building or part of any building, that is habitually used for ecclesiastical purposes' (National Monuments Acts 1930-2004).

A recorded monument is a monument included in the list and marked on the map which comprises the RMP set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest which have so far been identified.

There are 15 entries to the Record of Monuments and Places within the Ballyogan and Environs, with the greatest concentration of these designations in the north and south-west of the Plan area (as shown on Figure 4.9). These include castles, burial grounds, linear earthworks, enclosures, church sites, crosses and a habitation site.

There are a number of examples of material dating from the Bronze Age recorded within and adjacent to the Plan area. Objects from the early ages of Christianity have been discovered at the early church sites at both Kilgobbin and Jamestown. While the church site at Jamestown has not survived, its cross along with the well and burial ground is located in the middle of Stepside Golf Course. The church of Kilgobbin, just outside the Plan boundary was built in 1707 on an ancient pre-Norman site where once a wooden church would have stood. Beside the church stands the 10th Century Kilgobbin High Cross which was unearthed in 1800. In more recent times, large quantities of pottery called "Belarmine" were discovered nearby, indicating the wealth and importance of the community living here at the time.²⁸

Archaeological remains from the medieval period include Kilgobbin Castle, Murphystown Castle, and the former site of Carrickmines

²⁸ *Ballyogan and Environs Local Area Plan 2019-2025*

Castle (also just outside of the LAP lands). Kilgobbin Castle and Carrickmines Castle formed part of the Pale defences, a series of strategic fortifications intended to form the boundary of the area around Dublin. The alignment of the 'Pale Ditch' runs along the Ballyogan Stream in the centre of the Plan, with intermittent elements of this feature visible above ground. The Pale ditch marked the boundary of the Pale – the part of Ireland directly under the control of the English government including Dublin and parts of Kildare, Louth and Meath.

4.11.2 Architectural Heritage

The term architectural heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act 1999 as meaning all: structures and buildings together with their settings and attendant grounds, fixtures and fittings; groups of structures and buildings; and, sites which are of technical, historical, archaeological, artistic, cultural, scientific, social, or technical interest.

There are five Protected Structures located within Ballyogan and Environs area, including the Court House, Christ Church and St. Joseph's Church (as shown on Figure 4.10). Each of these is located within the western part of the Plan area near the Kilgobbin Road re-affirming the historical significance and settlement pattern in this area.

Records of Protected Structures are legislated for under Section 12 and Section 51 of the Planning and Development Act 2000 as amended. 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.

In relation to a protected structure or proposed protected structure, the following are encompassed:

- (i) The interior of the structure;
- (ii) The land lying within the curtilage²⁹ of the structure;

²⁹ Curtilage is normally taken to be the parcel of ground immediately associated with the Protected Structure, or in

- (iii) Any other structures lying within that curtilage and their interiors; and,
- (iv) All fixtures and features which form part of the interior or exterior of any structure or structures referred to in subparagraph (i) or (iii).

The national building survey being undertaken for the National Inventory of Architectural Heritage (NIAH) has yet to be completed for the Dún Laoghaire-Rathdown area. The NIAH is a State initiative under the administration of the Department of Culture, Heritage and the Gaeltacht and was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for the Environment, Heritage and Local Government to the local authorities for the inclusion of particular structures in their RPS.

In addition to Protected Structures, the Planning and Development Act, 2000 provides the legislative basis for the protection of Architectural Conservation Areas (ACAs). An ACA is a place, area or group of structures or townscape which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or contributes to the appreciation of protected structures, whose character it is an objective to preserve in a development plan. The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA which might alter the character of the structure or the ACA.

use for the purposes of the structure. Protection extends to the buildings and land lying within the curtilage. While the curtilage sometimes coincides with the present property boundary, it can originally have included lands, features or even buildings now in separate ownership, e.g. the lodge of a former country house, or the garden features located in land subsequently sold off. Such lands are described as being attendant grounds, and the protection extends to them just as if they were still within the curtilage of the Protected Structure.

An Architectural Conservation Area and various Protected Structures are designated in the adjacent area of Foxrock, to the north east of the Racecourse South neighbourhood area (as shown on Figure 4.10).

4.11.3 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.

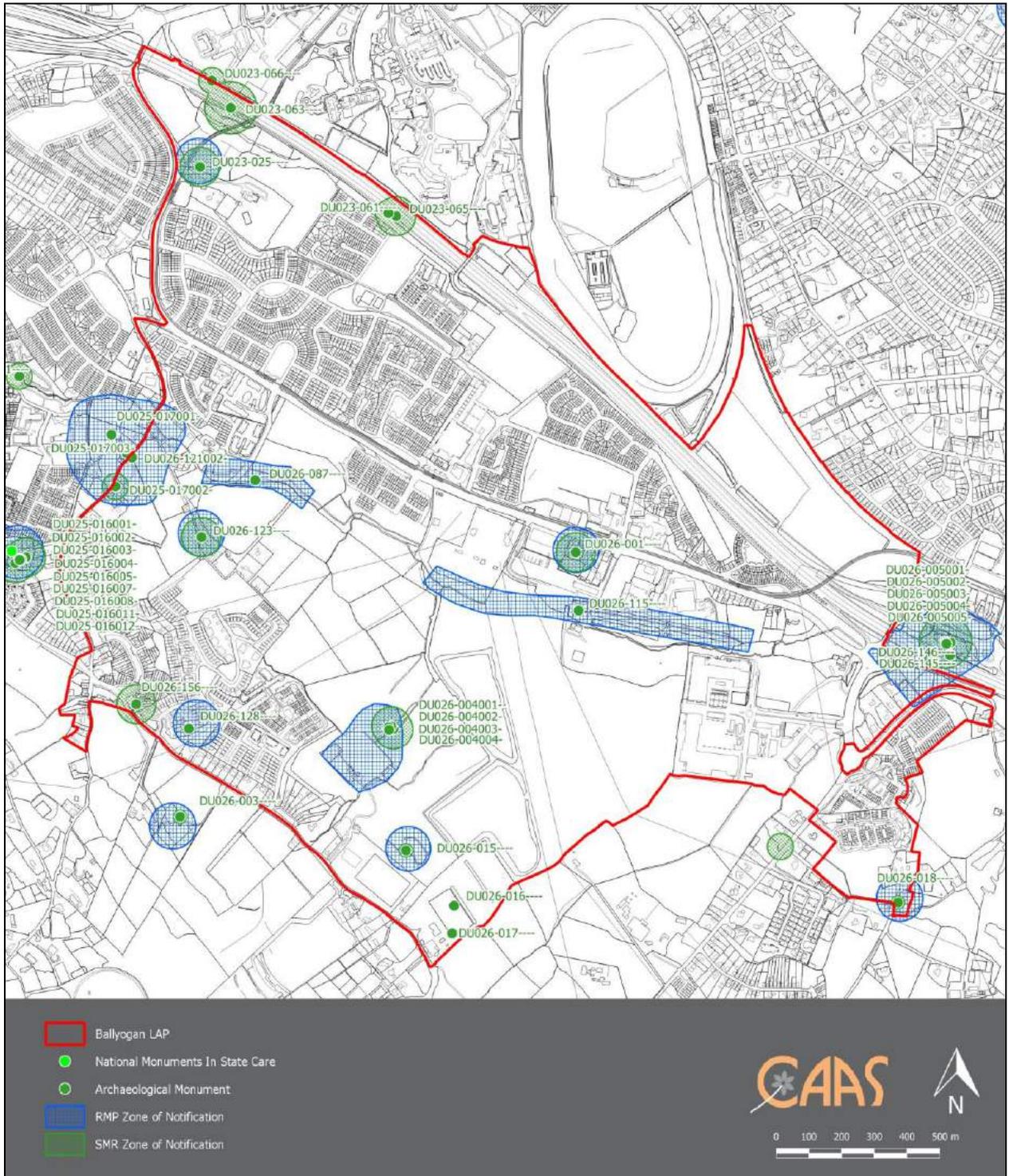


Figure 4.9 Archaeological Heritage

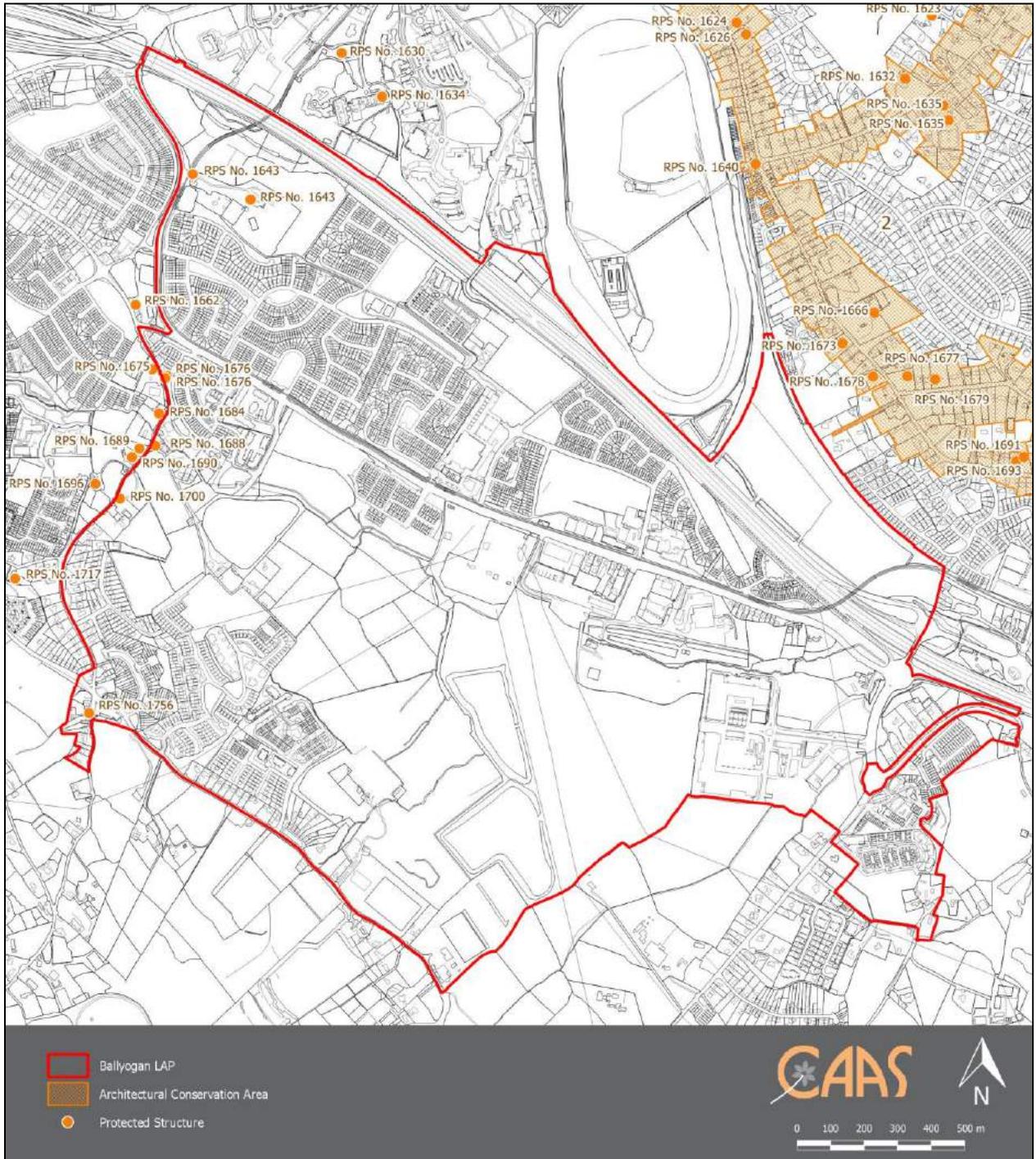


Figure 4.10 Architectural Heritage

4.12 Landscape

4.12.1 Topography

The Plan area sits at the base of the foothills of the Dublin Mountains, with the land falling from the high ground at Stepside, down to the valley of the Ballyogan Stream. Much of the Plan area is visible from areas outside of the Plan area, including the mountains to the southwest and lower areas to the northwest. Topography and elevation across the Plan area is shown on Figure 4.11.

4.12.2 Landscape Character Assessment

The Landscape Character Assessment for the Council's administrative area identifies 14 Landscape Character Areas in the south of the County, outside of the areas that accommodate the highest levels of development. The Ballyogan and Environs Plan area is located partially within the Landscape Character Area of Carrickmines (LCA 13).

Key Characteristics of Dún Laoghaire-Rathdown LCA 13 Carrickmines:

This enclosure encompasses the area east of the Stepside Action Area and is bounded by the motorway to the north, the Glenamuck Road to the South and the Enniskerry Road to the west. The most dominant visual feature of this enclosure is the new 50 acre Retail Park at Carrickmines intersection of the M50. The former Ballyogan landfill which is earmarked for future development as a park is located at the edge of the built up area of Dún Laoghaire-Rathdown and functions as a buffer between the more densely built-up area of Leopardstown/Stepaside and the lower density suburban generated housing area of Kiltiernan. This enclosure is best viewed from a height adjacent to Dingle Glen pNHA. From this viewpoint one gets a clear view of the enclosure. The impact of the multitude of urban uses – the tiphead, retail park, pylons and houses on the landscape is evident. This enclosure sits between the urban and the rural landscapes and is capable of

accommodating development. The future vision for this area offers an opportunity to enhance and restore a portion of the landscape as a public park (former Ballyogan tiphead). It is envisaged that this area will serve as an amenity/recreation area for new communities at Stepside and Carrickmines.³⁰

4.12.3 Protected Views and Prospects

The County contains many sites, areas and vantage points from which views over areas of great natural beauty, local landmarks, historic landscapes, adjoining Counties and the City of Dublin may be obtained. In addition to scenic views, the County also contains important prospects i.e. prominent landscapes or areas of special amenity value or special interest that are visible from the surrounding area.

Specific Views and Prospects for protection have been identified in the Plan and are considered when assessing planning applications.

A number of these landscape related designations are located at/to the south of the Plan area.

4.12.4 High Amenity Areas

The County Development Plan zones various High Amenity Areas in the southern portion of the County. These areas consist of landscapes of special value where inappropriate development would contribute to a significant diminution of the landscape setting of the County. There is one such area located along a stretch of the Ballyogan in the Plan area – it is zoned with Objective G: To protect and improve high amenity areas as shown on Figure 6.1.

It is the policy of the Council to conserve and enhance existing High Amenity Zones and to seek to manage these and other areas to absorb further recreational uses and activity without damaging the amenities that affords them their special character.

³⁰ Dún Laoghaire County Development Plan Appendix 7 Landscape Character Areas

Areas covered by the High Amenity Zoning include the Glencullen Valley, Glendoo Valley and Kilmashogue Valley. The areas adjacent to the High Amenity areas are also sensitive landscapes as development in these areas may affect directly or indirectly the quality of the High Amenity areas.

4.12.5 Existing Environmental Problems

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

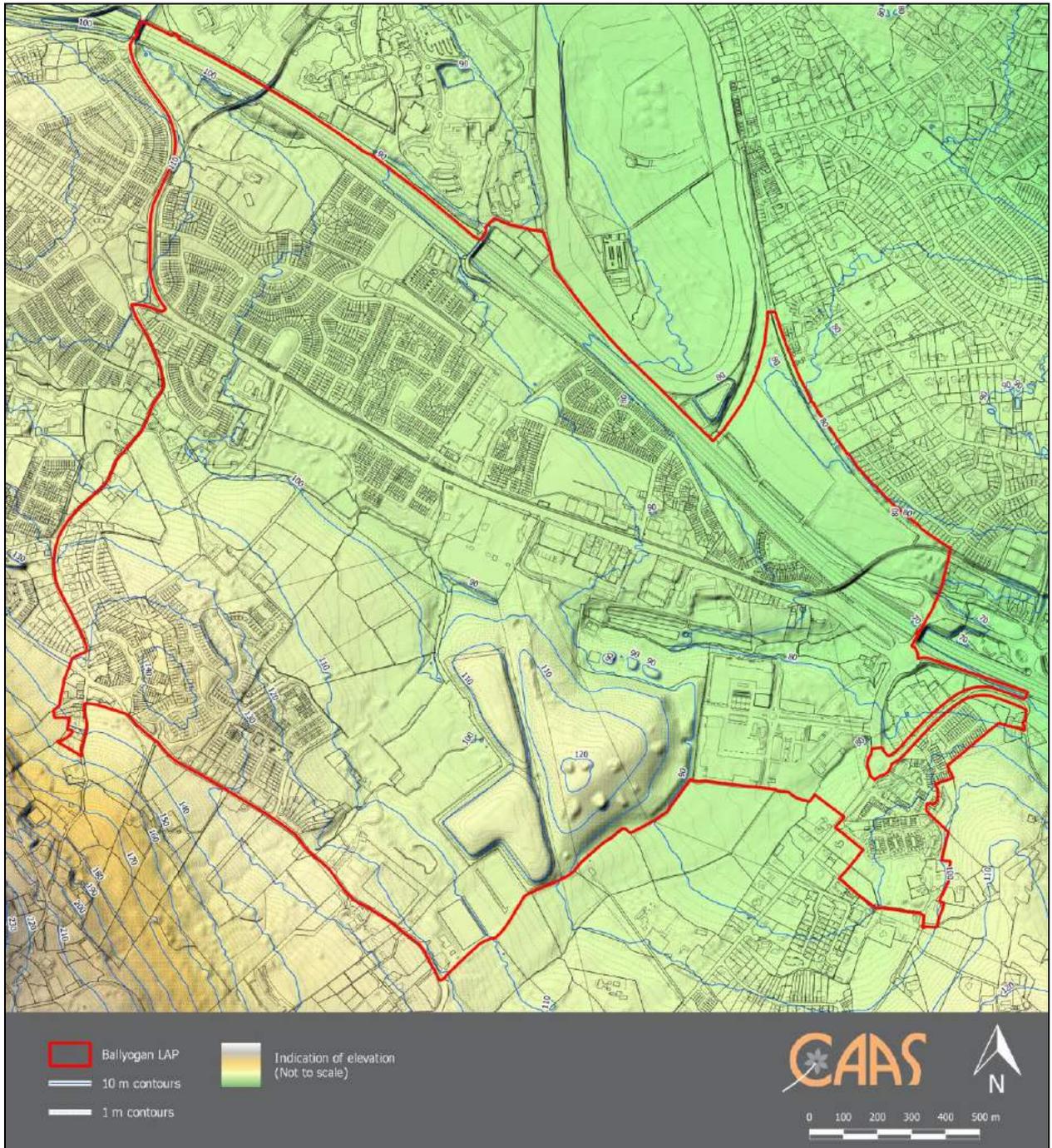


Figure 4.11 Topography and Elevation

Section 5 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 which have been transposed into Irish law and that are required to be implemented.

The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan 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.

The SEOs are linked to indicators that can facilitate monitoring the environmental effects of the Plan as well identifying targets that the Plan can help work towards.

All SEOs, indicators and targets are provided on Table 5.1 overleaf while background to these measures is provided in the subsections below.

Further detail on legislation, plans and programmes are provided under Section 2 (and associated Appendix I "Relationship with Legislation and Other Plans and Programmes") and Section 4.

Table 5.1 Strategic Environmental Objectives, Indicators and Targets

Environmental Component	Strategic Environmental Objectives	Selected Indicator(s)	Selected Target(s)
Biodiversity, Flora and Fauna	B1: To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Plan
	B2: To contribute towards compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Plan
	B3: To contribute towards avoidance of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites ³¹ and to ensure compliance with the Wildlife Acts 1976-2018 with regard to the protection of listed species	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan B3ii: Number of significant impacts on the protection of listed species	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan B3ii: No significant impacts on the protection of listed species
Population and Human Health	PHH1: To contribute towards the protection of populations and human health from exposure to incompatible landuses	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan
	PHH2 (and L1): To contribute towards protecting use of and access to amenities including parklands and playing fields	PHH2 (and L1): Disruption to use of and access to amenities including parklands and playing fields	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands and playing fields
Soil	S1: To avoid damage to the hydrogeological and ecological function of the soil resource	S1: Soil extent and hydraulic connectivity	S1: To minimise reductions in soil extent and hydraulic connectivity

³¹ The definition of a 'wildlife site' provided by the Planning and Development Act 2000, as amended, includes Natural Heritage Areas (NHAs) and proposed NHAs.

Environmental Component	Strategic Environmental Objectives	Selected Indicator(s)	Selected Target(s)
Water	W1: To contribute towards the maintenance and improvement, where possible, of the quality and status of surface waters	W1: Interactions with classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) resulting from development provided for by the Plan	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status', subject to exemptions provided for by Article 4 of the WFD ³²
	W2: To contribute towards maintaining and improving, where possible, the chemical and quantitative status of groundwaters	W2: Interactions with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC resulting from wind energy development (including associated development) permitted by planning authorities adhering to the Guidelines	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC, subject to exemptions provided for by Article 4 of the WFD
	W3: To contribute towards compliance with the provisions of the Flood Risk Management Guidelines	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with The Planning System and Flood Risk Management Guidelines for Planning Authorities
Material Assets	M1: To serve new development with adequate and appropriate wastewater treatment	M1: Number of new developments granted permission which can be adequately and appropriately served with wastewater treatment over the lifetime of the Plan	M1: All new developments granted permission to be connected to and adequately and appropriately served by wastewater treatment over the lifetime of the Plan
	M2: To serve new development with adequate drinking water that is both wholesome and clean	M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan
	M3: To reduce waste volumes, minimise waste to landfill and increase recycling and reuse	M3i: Preparation and implementation of construction and environmental management plans M3ii: Total collected and brought household waste M3iii: Packaging recovered (t) by self-complying packagers	M3i: For construction and environmental management plans to be prepared and implemented for relevant projects M3ii: Minimise increases in and, where possible, reduce household waste generation M3iii: Maximise increases in packaging recovered (t) by self-complying packagers
	M4: To facilitate the development of lands well-served by public transport (Luas and bus), improve permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth and limiting urban sprawl	M4: Extent of developed areas within the catchment of public transport infrastructure and services and walking and cycling infrastructure	M4: To maximise the extent of developed areas within the catchment of public transport infrastructure and services and walking and cycling infrastructure

³² Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the relevant River Basin Management Plan.

Environmental Component	Strategic Environmental Objectives	Selected Indicator(s)	Selected Target(s)
Air and Climatic Factors	AC1: To contribute towards reductions in travel related emissions (including pollutants, noise and greenhouse gas emissions) to air	AC1i: Compliance with Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive and associated legislation AC1ii: Greenhouse gas emissions from transport	AC1i: To contribute towards compliance with legislative air quality limits and target values AC1ii: To facilitate a reduction in greenhouse gas emissions from transport
	AC2: To encourage modal change from car to more sustainable forms of transport	AC2: Percentage of population travelling to work, school or college by public transport or non-mechanical means	AC2: An increase in the percentage of the population travelling to work, school or college by public transport or non-mechanical means
	AC3: To facilitate a reduction in energy use (including by the transport sector) and an increase in the proportion of energy from renewable sources	AC3i: Energy use (including by the transport sector) as a percentage of Total Final Energy Consumption AC3ii: Proportion of energy from renewable sources	AC3i: To facilitate a reduction in energy use (including by the transport sector) as a percentage of Total Final Energy Consumption AC3ii: To facilitate an increase in the proportion of energy used from renewable sources
Cultural Heritage	CH1: To contribute towards the protection of archaeological heritage (including entries to the Record of Monuments and Places) and/or its context	CH1: 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 provided for by the Plan	CH1: Protect entries to the Record of Monuments and Places - and the context of these entries within the surrounding landscape where relevant – protected from adverse effects resulting from development provided for by the Plan
	CH2: To contribute towards the protection of architectural heritage (including entries to the Record of Protected Structures and Architectural Conservation Areas) and its context	CH2: Percentage of entries to the Record of Protected Structures (including their context) and Architectural Conservation Areas protected from adverse effects resulting from development provided for by the Plan	CH2: Protect entries to the Record of Protected Structures (including their context) and Architectural Conservation Areas from adverse effects resulting from development provided for by the Plan
Landscape	L1 (and PHH2): To contribute towards protecting use of and access to amenities including parklands and playing fields	L1 (and PHH2): Disruption to use of and access to amenities including parklands and playing fields	L1 (and PHH2): To avoid and minimise disruption to use of and access to amenities including parklands and playing fields
	L2: To contribute towards avoidance or, where infeasible, minimisation of conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities	L2: Number of unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities, resulting from development provided for by the Plan	L2: No unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape

Section 6 Description of Alternatives

6.1 Introduction

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

6.2 Limitations in Available Alternatives

The alternatives available for the Local Area Plan (LAP) are significantly limited by the objectives of the existing Dún Laoghaire-Rathdown County Development Plan (CDP) 2016-2022. The LAP is required to be prepared by the CDP (so a 'do-nothing' option is not available). The CDP sets out a number of parameters for the LAP as follows:

- The Core Strategy identifies Stepside-Ballyogan and Carrickmines as two of the eight "Primary Growth Nodes" within the County, which will provide "a significant portion of the supply of residential units" up to the 2022 horizon.
- Specific Local Objective (SLO) 135, as contained in the CDP, requires the preparation of an LAP for Ballyogan and Environs, and is effectively the genesis of the LAP process. The Plan is required to address, in particular, the following:
 - The provision of the second collector Loop Road off the Ballyogan Road;
 - The need to ensure the maintenance of higher densities in close proximity to quality public transport corridors; and
 - Further development of the central Greenway Spine (including addressing issues of permeability and pedestrian and cycle links to the Luas) to the planned Jamestown Park and beyond to the employment and retail areas at The Park, Carrickmines.
- Lands within the LAP area are subject to one of six land use zoning objectives that are provided by the CDP as follow (see also Figure 6.1):
 - A: To protect and/or improve residential amenity;
 - A1: To provide for new residential communities in accordance with approved Local Area Plans;
 - E: To provide for economic development and employment;
 - F: To preserve and provide for open space with ancillary active recreational amenities;
 - NC: To protect, provide for and/or improve mixed-use neighbourhood centre facilities; and
 - G: To protect and improve high amenity areas.
- The CDP, which has been subject to SEA and AA, contains a number of provisions relating to sustainable development and environmental protection and management with which the LAP must comply.

6.3 Available Reasonable Alternatives

Reasonable alternatives are available for Neighbourhoods No. 6: Ballyogan South, No. 7: Racecourse South and No. 15: The Park Carrickmines (see Figure 6.2). These alternatives are identified on Table 6.1.

Table 6.1 Available Reasonable Alternatives

Neighbourhood	Scenario A	Scenario B
No. 6: Ballyogan South	Low density employment, retention of established energy, waste management infrastructure and services	High density employment, facilitating movement of existing energy and waste management infrastructure and services elsewhere
No. 7: Racecourse South	High density residential neighbourhood is brought forward for development over the lifetime of the LAP, consistent with the land use zoning provided for on these lands. There are two Scenario A's: (i): Modulated densities provided for, informed by environmental sensitivities, including proximity to existing transport and residential development (ii): Uniform density	No new development is brought forward for these lands over the lifetime of the LAP
No. 15: The Park Carrickmines	Focus upon high-density employment on these Economic and Employment zoned lands	Focus upon retail on these Economic and Employment zoned lands

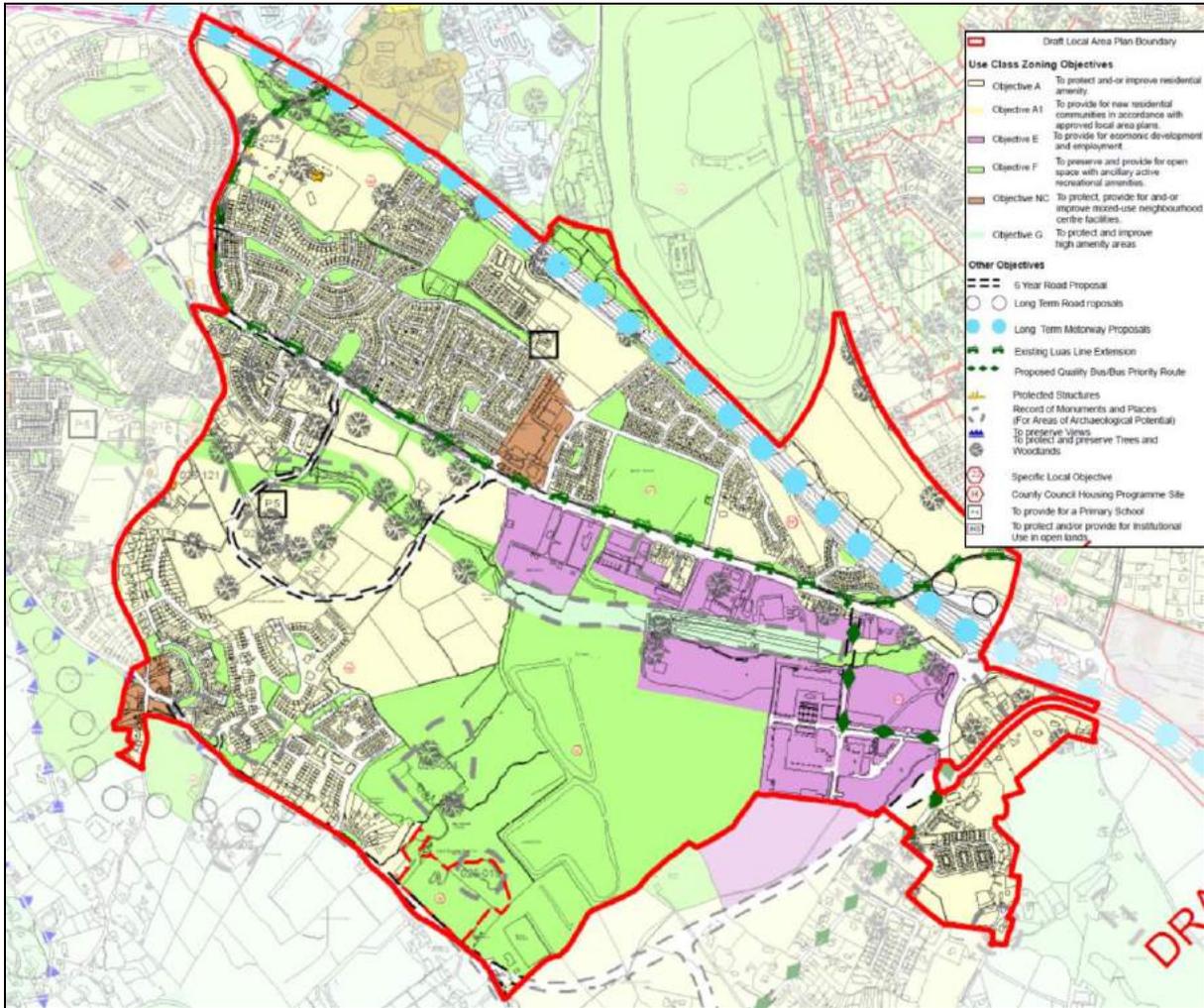


Figure 6.1 Land Use Zoning from the County Development Plan 2016-2022

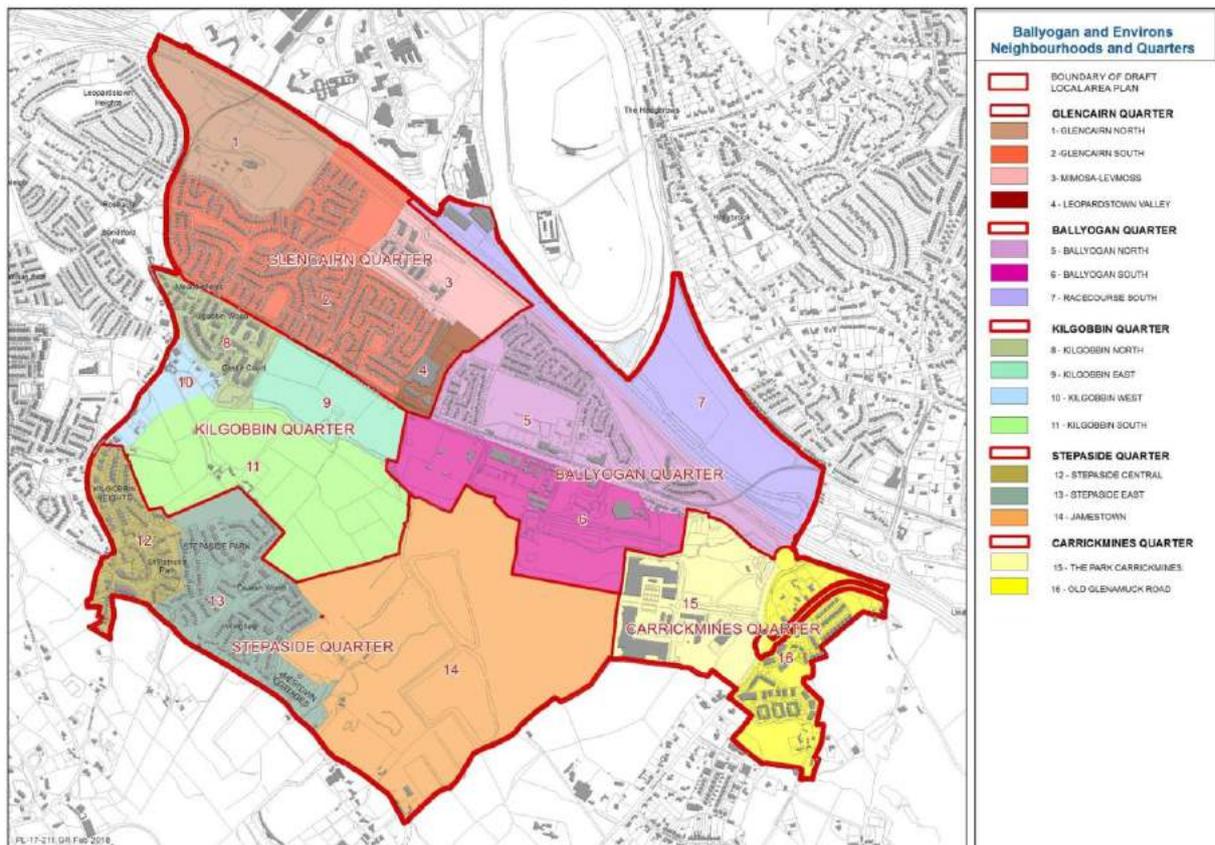


Figure 6.2 Local Area Plan Neighbourhoods and Quarters

Section 7 Evaluation of Alternatives

7.1 Introduction

This section provides a comparative evaluation of the environmental effects of implementing the alternatives. This determination sought to understand whether each alternative was likely to improve or conflict with the receiving environment.

7.2 Methodology

The relevant aspects of the current state of the environment (see Section 4) and the Strategic Environmental Objectives (SEOs) (see Section 5 and Table 7.1) are used in the evaluation of alternatives.

The alternatives are evaluated using compatibility criteria (see Table 7.2) in order to determine how they would be likely to affect the status of the SEOs. The SEOs and the alternatives are arrayed against each other to identify which interactions - if any - would cause effects on specific components of the environment. Where the appraisal identifies a likely conflict with the status of an SEO the relevant SEO code is entered into the conflict column - e.g. B1 which stands for the SEO likely to be affected - in this instance 'To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites'.

The interactions identified are reflective of likely significant environmental effects³³.

The degree to which effects can be fully determined at this level of decision making is limited as the Plan will be implemented through lower tier decision making and environmental assessments where relevant. Nonetheless, a comparative evaluation of the various alternatives can be provided.

³³ These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Table 7.1 Strategic Environmental Objectives³⁴

Environmental Component	Code	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	B1	To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites
	B2	To contribute towards compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
	B3	To contribute towards avoidance of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites ³⁵ and to ensure compliance with the Wildlife Acts 1976-2018 with regard to the protection of listed species
Population and Human Health	PHH1	To contribute towards the protection of populations and human health from exposure to incompatible landuses
	PHH2 (and L1)	To contribute towards protecting use of and access to amenities including parklands and playing fields
Soil	S1	To avoid damage to the hydrogeological and ecological function of the soil resource
Water	W1	To contribute towards the maintenance and improvement, where possible, of the quality and status of surface waters
	W2	To contribute towards maintaining and improving, where possible, the chemical and quantitative status of groundwaters
	W3	To contribute towards compliance with the provisions of the Flood Risk Management Guidelines
Material Assets	M1	To serve new development with adequate and appropriate wastewater treatment
	M2	To serve new development with adequate drinking water that is both wholesome and clean
	M3	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse
	M4	To facilitate the development of lands well-served by public transport (Luas and bus), improve permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth and limiting urban sprawl
Air and Climatic Factors	AC1	To contribute towards reductions in travel related emissions (including pollutants, noise and greenhouse gas emissions) to air
	AC2	To encourage modal change from car to more sustainable forms of transport
	AC3	To facilitate a reduction in energy use (including by the transport sector) and an increase in the proportion of energy from renewable sources
Cultural Heritage	CH1	To contribute towards the protection of archaeological heritage (including entries to the Record of Monuments and Places) and/or its context
	CH2	To contribute towards the protection of architectural heritage (including entries to the Record of Protected Structures and Architectural Conservation Areas) and its context
Landscape	L1 (and PHH2)	To avoid and minimise disruption to use of and access to amenities including parklands and playing fields
	L2	To contribute towards avoidance or, where infeasible, minimisation of conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities

Table 7.2 Criteria for appraising the effect of Alternatives on SEOs

Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Likely to Potentially Conflict with status of SEOs to a lesser degree - likely to be mitigated	Likely to Potentially Conflict with status of SEOs to a greater degree - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be fully mitigated
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³⁴ See Section 5 for a description of Strategic Environmental Objectives.

³⁵ The definition of a 'wildlife site' provided by the Planning and Development Act 2000, as amended, includes Natural Heritage Areas (NHAs) and proposed NHAs.

7.3 Cumulative Effects

Cumulative effects are one of the types of effects which have been considered by the assessment. Cumulative effects can be described as the addition of many small impacts to create one larger, more significant, impact.

There are 2 types of potential cumulative effects that have been considered, namely:

- *Intra-Plan* cumulative effects - these arise from the interactions between different types of potential environmental effects resulting from a plan, programme, etc.
- The interrelationships between environmental components that help determine these effects are identified on Table 8.3 e.g. interrelationships between: human health and air quality; human health and water quality; air quality and vegetation; human health and flood risk; and ecology and water quality. Effects that have been identified by the assessment (see Table X) include those which are interrelated; implementation of the Plan will not affect the interrelationships between environmental components.
- Potential *inter-Plan* cumulative effects - these arise when the effects of the implementation of one plan occur in combination with those of other plans, programmes, projects, etc. With regard to potential *inter-Plan* cumulative environmental effects, these occur as a result of the combination of: environmental effects which are identified by the assessment; and the effects arising from other policies, plans and programmes.

Legislation, plans and programmes that are subject to their own environmental assessment requirements as relevant and have the potential to interact with the Local Area Plan have been identified under Sections 2, 4, 5 and 9 and Appendix I and were considered by the assessment of environmental effects. Examples include those relating to:

- Transport and/or land use (e.g. National Planning Framework and associated National Development Plan, the Draft Regional Spatial and Economic Strategy for the Eastern and Midland Region, Dún Laoghaire-Rathdown County Development Plan 2016-2022, other Local Area Plans and the National Transport Authority's Greater Dublin Area Transport Strategy 2016-2035);
- Water services, waste management and energy (e.g. Irish Water's Water Services Strategic Plan and associated Capital Investment Plan and Eastern and Midlands Regional Waste Management Plan) and the Dún Laoghaire-Rathdown Local Economic and Community Plan 2016-2021; and
- Environmental protection and management (e.g. River Basin Management Plan 2018-2021, National Mitigation Plan 2017, National Adaptation Framework 2018 and Eastern CFRAMS Flood Risk Management Plan).

Potential cumulative effects arising from the Plan and other plans and programmes include the following (note that potential adverse cumulative effects will be mitigated by provisions which have been integrated into the Plan):

- Contributions towards reductions in travel related greenhouse gas and other emissions to air (in combination with plans and programmes from all sectors, including transport and land use planning) as a result of facilitating:
 - Sustainable mobility/a shift from car to more sustainable and non-motorised transport modes
 - More consolidated urban areas and reductions in sprawl
- Contributions towards energy security and reductions in energy usage (in combination with plans and programmes from all sectors, including energy, transport and land use planning) as a result of facilitating:
 - Sustainable mobility/a shift from car to more sustainable and non-motorised transport modes
 - More consolidated urban areas and reductions in sprawl

- Contributions towards travel related greenhouse gas and other emissions to air including dust and particulate matter (in combination with plans, programmes and existing and new developments from all sectors, including transport and land use planning) as a result of facilitating development that will result in an extent of car-based and other motorised travel and associated potential interactions with human health.
- Facilitation of new development that is accompanied by appropriate levels of water services thereby contributing towards environmental protection.
- Contributions towards need for and use of water and wastewater treatment capacity arising from new developments and associated potential adverse effects.
- Potential cumulative effects upon the status of water bodies as a result of new development.
- Potential cumulative effects (habitat damage, enhancing ecological connectivity, contributing towards sustainable mobility) arising from linear developments within the Plan area, including potential effects along water bodies;
- Potential effects of flood risk to new development where appropriate sustainable urban drainage systems are not employed;
- In combination with plans and programmes from all sectors potential adverse effects on all environmental components arising from new development. The type of these effects are consistent with those described on Table 8.4. These plans and programmes from other sectors undergo SEA, AA and SFRA as appropriate and comply with environmental legislation while projects are subject to EIA and AA, as relevant.

The SEA undertaken for the Plan has taken account of the need for the implementation of the Plan to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

7.4 Detailed Evaluation of Alternatives

7.4.1 Comparative Evaluation of Alternatives for Ballyogan South (Neighbourhood No. 6)

Scenario A provides for low-density employment and retention of established energy, waste management infrastructure and services while Scenario B provides for high-density employment, facilitating relocation of existing energy and waste management infrastructure and services elsewhere.

The relocation of existing energy and waste management infrastructure elsewhere (facilitated by Scenario B) would present significant planning and environmental challenges. Adverse environmental effects would be unlikely to be fully mitigated. Given the importance of the Carrickmines 220kV substation in the national electricity transmission network, providing a step down from long distance 220kV networks to more local 110kV distribution works, it is uncertain whether this would be achieved. Retaining established energy, waste management infrastructure (provided by Scenario A) would benefit the protection of various environmental components as relocation – and associated probable conflicts – would not occur.

By providing for a greater amount of employment development, Scenario B would help to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond – to a greater degree than would be the case with Scenario A.

By facilitating the development of lands well-serviced by public transport (Luas and bus), both scenarios would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use). Such benefits arising from new development within the Plan area would be greater with Scenario B (which provides for high-density employment) than it would be with Scenario A (which provides for low-density employment). Both scenarios would give rise to an amount of journeys that would result in emissions, including those from journeys by car.

A comparative evaluation of alternatives for Ballyogan South against SEOs is provided on Table 7.3.

Table 7.3 Comparative Evaluation of Alternatives for Ballyogan South against SEOs

Scenario	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Likely to Potentially Conflict with status of SEOs to a lesser degree - likely to be mitigated	Likely to Potentially Conflict with status of SEOs to a greater degree - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be fully mitigated
A	B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 CH1 CH2 L1 L2 (retention of established energy and waste management infrastructure; relocation would not be facilitated)	AC1 AC2 AC3 (development of lands well-served by public transport)	B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 AC1 AC2 AC3 CH1 CH2 L1 L2 (helps to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond)	AC1 AC2 AC3 (journeys, including those by car to low-density employment development and retained waste management facility, would result in emissions)	B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 AC1 AC2 AC3 CH1 CH2 L1 L2 (need to accommodate development at more sensitive, less well-served lands elsewhere in the County and beyond)	
B	AC1 AC2 AC3 (development of lands well-served by public transport)	B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 AC1 AC2 AC3 CH1 CH2 L1 L2 (helps to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond)			AC1 AC2 AC3 (journeys, including those by car to high-density employment development and relocated waste management facility, would result in emissions)	B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 CH1 CH2 L1 L2 (relocation of established energy and waste management infrastructure would present significant and environmental challenges)

7.4.2 Comparative Evaluation of Alternatives for Racecourse South (Neighbourhood No. 7)

The A Scenarios (i and ii) involve bringing a high-density residential neighbourhood forward for development. This neighbourhood would be serviced by good public transport links (bus and Luas).

Under Scenario B, no new development is brought forward for these lands over the lifetime of the LAP.

Scenarios A(i) and A(ii) would both result in improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use). Comparatively, Scenario B would conflict with objectives seeking to facilitate the development of lands well-served by public transport.

The development of well-served lands at this site (both A Scenarios) would reduce the need to develop more sensitive, less well-served lands elsewhere in the County and beyond – this would improve the status of various environmental components. Comparatively, Scenario B would not reduce the need to develop more sensitive, less well-served lands elsewhere for these uses.

Scenario A(ii) involves development of uniform density across the site – this would present potential conflicts with environmental sensitivities at the site and nearby that relate to flood risk, water protection, residential amenity and architectural heritage. Scenario A(i) involves the development of modulated densities that are informed by environmental sensitivities, including proximity to existing transport and residential development. As a result, Scenario A(i) would present potential conflicts to a lesser degree than would be the case with Scenario A(ii).

Scenario B would not bring forward development for this site and therefore it would contribute towards the protection of environmental sensitivities at the site and nearby.

A comparative evaluation of alternatives for Racecourse South against SEOs is provided on Table 7.3.

Table 7.4 Comparative Evaluation of Alternatives for Racecourse South against SEOs

Scenario	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Likely to Potentially Conflict with status of SEOs to a lesser degree - likely to be mitigated	Likely to Potentially Conflict with status of SEOs to a greater degree - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be fully mitigated
A (i)	AC1 AC2 AC3 (development of lands well-served by public transport) B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 CH1 CH2 L1 L2 (helps to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond)	B2 B3 PHH1 S1 W1 W2 W3 CH2 (contribution towards protection of sensitivities at the site and nearby through a framework that takes into account environmental considerations)		B2 B3 PHH1 S1 W1 W2 W3 CH2 (potential conflicts with environmental sensitivities at the site and nearby) AC1 AC2 AC3 (journeys, including those by car would result in emissions)		
A (ii)	AC1 AC2 AC3 (development of lands well-served by public transport) B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 M4 CH1 CH2 L2 (helps to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond)			AC1 AC2 AC3 (journeys, including those by car would result in emissions)	B2 B3 PHH1 S1 W1 W2 W3 CH2 (potential conflicts with environmental sensitivities at the site and nearby)	
B	B2 B3 PHH1 S1 W1 W2 W3 CH2 (contribution towards protection of sensitivities at the site and nearby by not bringing forward the site for development)					B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 AC1 AC2 AC3 CH1 CH2 L1 L2 (need to accommodate development at more sensitive, less well-served lands elsewhere in the County and beyond)

7.4.3 Comparative Evaluation of Alternatives for The Park Carrickmines (Neighbourhood No. 15)

Scenario A would focus upon high-density employment, while Scenario B would focus upon retain development. These alternatives would have similar environmental effects. Both scenarios would:

- Reduce the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond – this would improve the status of various environmental components; and
- Result in improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).

There is a greater shortage of and demand for new high-density employment development in Dún Laoghaire-Rathdown, in comparison with that related to new retail development. Therefore high-density employment development may have a greater potential to be realised and/or occur sooner.

A comparative evaluation of alternatives for The Park Carrickmines against SEOs is provided on Table 7.3.

Table 7.5 Comparative Evaluation of Alternatives for The Park Carrickmines against SEOs

Scenario	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Likely to Potentially Conflict with status of SEOs to a lesser degree - likely to be mitigated	Likely to Potentially Conflict with status of SEOs to a greater degree - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be fully mitigated
A		AC1 AC2 AC3 (development of lands well-serviced by public transport) B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 CH1 CH2 L1 L2 (helps to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond)		B2 B3 PHH1 S1 W1 W2 W3 (potential conflicts with environmental sensitivities at the site and nearby) AC1 AC2 AC3 (journeys, including those by car would result in emissions)		
B		AC1 AC2 AC3 (development of lands well-serviced by public transport) B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 M4 CH1 CH2 L1 L2 (helps to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond)		B2 B3 PHH1 S1 W1 W2 W3 (potential conflicts with environmental sensitivities at the site and nearby) AC1 AC2 AC3 (journeys, including those by car would result in emissions)		

7.5 The Selected Alternatives

The Plan was developed by the Planning Team taking into account both:

1. Environmental considerations that were identified by the SEA, including those detailed above; and
2. Planning - including social and economic - effects that were also considered by the Council.

The alternatives that were selected for the Plan are follows:

- Scenario A for Ballyogan South (Neighbourhood No. 6);
- Scenario A(i) for Racecourse South (Neighbourhood No. 7); and
- Scenario A for the Park Carrickmines (Neighbourhood No. 15).

Table 8.4 in Section 8 details the overall findings of the assessment with respect to the Plan that was developed from the selected alternatives.

By complying with appropriate mitigation measures – these are identified at Section 9 of this report – potential adverse environmental effects which could arise as a result of implementing these scenarios would be likely to be avoided, reduced or offset.

Section 8 Evaluation of Plan Provisions

8.1 Introduction

This section provides a comparative evaluation of the environmental effects of implementing the detailed provisions contained within the Plan. This determination sought to understand whether each provision was likely to improve or conflict with or have a neutral interaction with the receiving environment.

8.2 Methodology

The relevant aspects of the current state of the environment (see Section 4) and the Strategic Environmental Objectives (SEOs) (see Section 5 and Table 8.1) are used in the evaluation of detailed provisions contained within the Plan.

The provisions are evaluated using compatibility criteria (see Table 8.2) in order to determine how they would be likely to affect the status of the SEOs. The SEOs and the provisions are arrayed against each other to identify which interactions - if any - would cause effects on specific components of the environment. Where the appraisal identifies a likely conflict with the status of an SEO the relevant SEO code is entered into the conflict column - e.g. B1 which stands for the SEO likely to be affected - in this instance 'To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites'.

The interactions identified are reflective of likely significant environmental effects³⁶.

The degree to which effects can be fully determined at this level of decision making is limited as the Plan will be implemented through lower tier decision making and environmental assessments where relevant.

In accordance with the established European principle of subsidiarity, more detailed assessment will be undertaken as appropriate at lower tiers of decision making. More detailed environmental measures may emanate from such assessments, further facilitating the mitigation of adverse effects.

³⁶ These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Table 8.1 Strategic Environmental Objectives³⁷

Environmental Component	Code	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	B1	To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites
	B2	To contribute towards compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
	B3	To contribute towards avoidance of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites ³⁸ and to ensure compliance with the Wildlife Acts 1976-2018 with regard to the protection of listed species
Population and Human Health	PHH1	To contribute towards the protection of populations and human health from exposure to incompatible landuses
	PHH2 (and L1)	To contribute towards protecting use of and access to amenities including parklands and playing fields
Soil	S1	To avoid damage to the hydrogeological and ecological function of the soil resource
Water	W1	To contribute towards the maintenance and improvement, where possible, of the quality and status of surface waters
	W2	To contribute towards maintaining and improving, where possible, the chemical and quantitative status of groundwaters
	W3	To contribute towards compliance with the provisions of the Flood Risk Management Guidelines
Material Assets	M1	To serve new development with adequate and appropriate wastewater treatment
	M2	To serve new development with adequate drinking water that is both wholesome and clean
	M3	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse
	M4	To facilitate the development of lands well-served by public transport (Luas and bus), improve permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth and limiting urban sprawl
Air and Climatic Factors	AC1	To contribute towards reductions in travel related emissions (including pollutants, noise and greenhouse gas emissions) to air
	AC2	To encourage modal change from car to more sustainable forms of transport
	AC3	To facilitate a reduction in energy use (including by the transport sector) and an increase in the proportion of energy from renewable sources
Cultural Heritage	CH1	To contribute towards the protection of archaeological heritage (including entries to the Record of Monuments and Places) and/or its context
	CH2	To contribute towards the protection of architectural heritage (including entries to the Record of Protected Structures and Architectural Conservation Areas) and its context
Landscape	L1 (and PHH2)	To avoid and minimise disruption to use of and access to amenities including parklands and playing fields
	L2	To contribute towards avoidance or, where infeasible, minimisation of conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities

Table 8.2 Criteria for appraising the effect of Alternatives on SEOs

Likely to Improve status of SEOs	Potentially Conflicting with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs	No Likely interaction with status of SEOs
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³⁷ See Section 5 for a description of Strategic Environmental Objectives.

³⁸ The definition of a 'wildlife site' provided by the Planning and Development Act 2000, as amended, includes Natural Heritage Areas (NHAs) and proposed NHAs.

8.3 Appropriate Assessment and Strategic Flood Risk Assessment

Appropriate Assessment (AA) Screening has been undertaken alongside the preparation and adoption of the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The conclusion of the AA Screening process is that the Plan will not give rise to any effect on the ecological integrity of any European Sites, alone or in combination with other plans or projects.

A Strategic Flood Risk Assessment (SFRA) is also being undertaken alongside the preparation and adoption of the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Plan, SEA, AA Screening and SFRA has taken place concurrently and the findings of the AA and SFRA have informed the SEA. Various policies and objectives have been integrated into the Plan through the SEA and SFRA processes.

8.4 Interrelationship between Environmental Components

The SEA Directive requires the Environmental Report to include information on the likely significant effects on the environment, including on issues such as biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

Likely significant effects on environmental components which are identified include those which are interrelated; implementation of the Plan will not affect the interrelationships between these components. The presence of significant interrelationships between environmental components is identified on Table 8.3.

Table 8.3 Potential for Interrelationships between Environmental Components

Component	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air and Climatic factors	Material assets	Cultural heritage	Landscape
Biodiversity, flora and fauna		No	Yes	Yes	Yes	Yes	No	Yes
Population and Human Health			Yes	Yes	Yes	Yes	No	Yes
Soil				Yes	Yes	Yes	No	No
Water					Yes	Yes	No	No
Air and Climatic Factors						Yes	No	No
Material Assets							Yes	Yes
Cultural Heritage								Yes
Landscape								

8.5 Overall Findings

Table 8.4 details the following types of environmental effects arising from the Plan: likely significant positive effects; likely significant adverse effects, if unmitigated; and likely residual adverse effects after mitigation (as detailed in Section 1) is applied.

Cumulative effects considered by the assessment include those detailed under Section 7.3. Effects identified on Table 8.4 take into account that implementation of the Plan will occur within a wider planning framework including the plans and programmes that have been identified under Sections 2, 4, 5, 9 and Appendix I.

Environmental impacts which occur, if any, will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Avoidance of conflict with SEOs and the environment is dependent upon compliance with mitigation measures (as detailed in Section 1).

In summary:

- There are a number of environmental benefits that are provided for by the parameters set down by the County Development Plan within which the LAP must be prepared.
- There is an established need for development including new residential communities, economic development and employment within Dún Laoghaire-Rathdown and the wider Greater Dublin Area.
- The Local Area Plan lands:
 - Include areas that contain relatively low levels of environmental sensitivities and designations, in comparison to other lands within the County and beyond, including, for example, coastal fringes and more rural upland areas;
 - Are currently served by four Green Line Luas stops and four bus routes. The NTA's Transport Strategy for the Greater Dublin Area 2016-2035 includes a policy to enhance capacity on the Luas Green Line from St. Stephen's Green to Bride's Glen.
 - Include and are close to areas that contain services and employment opportunities.
- By providing for growth and development in this well-served area that includes relatively low levels of sensitivities, the Plan would help to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects on environmental components:
 - Biodiversity and flora and fauna;
 - Population and human health;
 - Soil;
 - Water (status of rivers and groundwater);
 - Flood;
 - Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases);
 - Material Assets (facilitating development of well-served lands, contributes towards use of existing and planned infrastructure);
 - Cultural Heritage (architectural and archaeological heritage); and
 - Landscape and amenities.
- As the Plan provides for land use development and activities, potential conflicts with environmental components would arise. These conflicts will be mitigated to the extent that the only residual adverse effects occurring will be those detailed on Table 8.4 overleaf.

Table 8.4 Overall Findings – Environmental Effects arising from the Plan Provisions

Environmental Component	Likely Significant Environmental Effects, in combination with the wider planning framework		Residual Adverse Effects
	Positive Effect, likely to occur	Adverse Effect, if unmitigated	
Biodiversity and flora and fauna	<ul style="list-style-type: none"> Contribution towards the protection of ecology by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development. Contribution towards the protection of biodiversity including listed species, ecological connectivity and non-designated habitats. Contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, such as water and soil. 	<ul style="list-style-type: none"> Loss of/damage to biodiversity in designated sites, 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 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.
Population and human health	<ul style="list-style-type: none"> Contribution towards the protection of human health as a result of protection of environmental vectors, including soil, water and air. Contribution towards protection of human health with respect to the timely provision of water services and the provision of transport infrastructure integrated with land use planning – and associated interactions with sustainable mobility, emissions and energy usage. 	<ul style="list-style-type: none"> Spatially concentrated deterioration in human health if effects arising from environmental vectors such as air and water. 	<ul style="list-style-type: none"> Interactions with other non-significant residual effects arising
Soil	<ul style="list-style-type: none"> Contribution towards the protection of soil and interrelated environmental components by not hindering ongoing monitoring at Ballyogan landfill and continuance of established and additional appropriate uses at the landfill. Contribution towards the protection of soil by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development. 	<ul style="list-style-type: none"> Adverse impacts such as those relating to subsidence or contamination arising from development provided for by the Plan at the historic Ballyogan landfill. Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. 	<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 and from sea level rise/coastal erosion
Water	<ul style="list-style-type: none"> Contribution towards the protection of water by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development. Contributions towards the protection of water resources including the status of surface and groundwaters and water based designations. Contribution towards flood risk management. 	<ul style="list-style-type: none"> Adverse impacts upon the status of water bodies and entries to the WFD Register of Protected Areas arising from changes in quality, flow and/or morphology. Increase in the risk of flooding. 	<ul style="list-style-type: none"> Flood related risks remain due to uncertainty with regard to extreme weather events Any loadings to be in compliance with relevant water management provisions

Environmental Component	Likely Significant Environmental Effects, in combination with the wider planning framework		Residual Adverse Effects
	Positive Effect, likely to occur	Adverse Effect, if unmitigated	
Air and climatic factors	<ul style="list-style-type: none"> By facilitating the development of lands well-served by public transport (Luas and bus), improving permeability and providing for extensions to the off road cycle and pedestrian network, the Plan will facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes. These improvements would contribute towards the following positive effects: <ul style="list-style-type: none"> Reductions in/limits in increases of greenhouse gas emissions and associated achievement of legally binding greenhouse gas emissions targets; Reductions in/limits in increases of all emissions to air and associated achievement of air quality objectives, thereby contributing towards improvement or air quality and protection of human health; Increases in consumption of renewable energy sources; and Reductions in/limits in increases of energy use. 	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<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 Plan, including those relating to sustainable mobility.
Material Assets	<ul style="list-style-type: none"> Contribution towards the provision of water services by Irish Water by facilitating the development of well-served lands, thereby helping to avoid the need to develop less well-served lands elsewhere in the County and beyond and contributing towards sustainable development. Contributes towards the use of existing and planned infrastructure including water services, transport, energy and drainage infrastructure. Facilitates the development of lands well-served by public transport (Luas and bus), improves permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth, limiting urban sprawl and helping to avoid the need to develop less well-served lands elsewhere in the County and beyond and contributing towards sustainable development 	<ul style="list-style-type: none"> Failure of development to be accompanied by adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Increases in waste levels. 	<ul style="list-style-type: none"> Residual wastes (these would be disposed of in line with higher level waste management policies) Potential residual losses to built/amenity assets
Cultural Heritage	<ul style="list-style-type: none"> Contribution towards protection of cultural heritage. 	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture. 	<ul style="list-style-type: none"> Potential alteration to the context and setting of designated cultural heritage however these will occur in compliance with legislation. Potential loss of unknown archaeology however this loss will be mitigated
Landscape	<ul style="list-style-type: none"> Contribution towards the protection of landscape by facilitating development within existing settlements. Contribution towards the protection of existing amenities. 	<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"> Residual visual effects (these would be in compliance with landscape designation provisions)

8.6 Detailed Evaluation of the Plan Provisions

8.6.1 Chapter 3: Vision Statement

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Vision</p> <p>The overarching objective of this Plan is to help the BELAP area to develop as a good quality place to live, work, and visit. It is recognised that the existing communities within the area represent around half the future population, based on the extent of zoned land. The needs of both the existing and future communities of this area will be catered for under this Plan.</p> <p>The neighbourhoods and quarters within the BELAP area will develop as self-contained places from the perspective of character, services, facilities, and place-making, but will become connected both to one another and to the wider County and Region by a network of new and improved connections, with a focus on sustainable modes of transport.</p> <p>Historical challenges for the area such as shortcomings and imbalances in retail, community, and recreational facilities will be addressed, while building on the area's strengths such as heritage, sense of place, and access to good quality transport networks.</p> <p>A major focus of the Plan will be the need to provide new and improved linkages through the BELAP area, with a particular focus on linking residential areas to Neighbourhood Centres, community facilities, schools and the Luas Green Line, as well as providing recreational routes that capitalise on the area's natural heritage.</p> <p>Providing new and improved ways to cross the M50 for pedestrians and cyclists and for local vehicular traffic will be important, as will providing linkages for sustainable transport modes – such as walking, cycling, and public transport - to the adjacent growth areas of Sandyford Business District and Cherrywood.</p> <p>There is a focus on the significant remaining areas of zoned residential lands by way of Site Development Frameworks, along with a commitment to providing the supporting infrastructure in tandem with future development.</p> <p>The BELAP area has a legacy of land uses such as utility, light industrial, landfill, retail warehousing, etc. In some instances it will be appropriate to support these uses, which serve a function at a wider Regional level. In others, it will be appropriate to support a transition to other land uses that better support the area's role within the County and Region.</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

Commentary:

This assessment against Strategic Environmental Objectives (SEOs) that is provided for the Vision is consistent with both the:

- Environmental effects detailed under Section 8.5 "Overall Findings"; and
- Assessments of the selected alternatives for the Plan that are detailed in Section 7 "Evaluation of Alternatives".

Also, many parts of the Vision contribute towards sustainable development/the protection and management of the environment, for example:

- "network of new and improved connections, with a focus on sustainable modes of transport";
- "new and improved linkages through the BELAP area, with a particular focus on linking residential areas to Neighbourhood Centres, community facilities, schools and the Luas Green Line";
- "new and improved ways to cross the M50 for pedestrians and cyclists and for local vehicular traffic";
- "providing linkages for sustainable transport modes – such as walking, cycling, and public transport - to the adjacent growth areas of Sandyford Business District and Cherrywood"; and
- "providing the supporting infrastructure in tandem with future development".

8.6.2 Chapter 4: Transport and Movement

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Policy BELAP MOV1 – Pedestrian and Cycle Network: To provide for a new high quality pedestrian and cycle network within the LAP area which will connect existing and new communities and redefine the character of the LAP area; including (i) creation of new segregated green routes within the LAP area; (ii) improvement and upgrading of existing routes; (iii) improvement and increased number of pedestrian/cycle crossings on main roads; and (iv) connect into existing and planned networks surrounding the LAP area.</p> <p>Policy BELAP MOV2 – M50 Crossings: To facilitate the delivery of new and improved crossing opportunities of the M50 within and adjacent to the BELAP area, with particular emphasis on pedestrian and cycle routes.</p> <p>Policy BELAP MOV3 – Onward Connections: To ensure integration between the LAP lands with initiatives such as “Smarter Travel” and strategic cycle routes connecting Dun Laoghaire-Rathdown and Dublin City and to develop improved connectivity to surrounding communities including Sandyford, Cherrywood and Kiltiernan/Glenamuck.</p> <p>Policy BELAP MOV4 – Cycling Infrastructure: To ensure that all new cycling infrastructure be provided in accordance with the standards set out in the National Cycle Manual (2012) published by the NTA, where practicable, recognising the challenges in retrofitting infrastructure within the existing road network.</p> <p>Policy BELAP MOV5 – Routes to Public Transport: To increase permeability to existing public transport routes by providing attractive, legible and direct walking and cycling links to bus and Luas stops.</p> <p>Policy BELAP MOV6 – Racecourse Luas Stop: To facilitate the opening of the Racecourse Luas Stop on the Green Line permanently to the public. (See Figure 11.1)</p> <p>Policy BELAP MOV7 – Luas Corridor Improvements: To support and promote any and all improvements to capacity and service levels on the Luas Green Line corridor, including the delivery, in time, of the provision of a Metro grade service from Dublin Airport via the City Centre to Sandyford, and to support and promote any and all improvements to bus services and routing serving the area</p> <p>Policy BELAP MOV8 – Balance between Movement and Place: To protect the role of the key strategic roads within the LAP area so that they continue to serve their movement function, whilst also seeking visual and environmental improvements to these routes so that they contribute to a sense of place and create a pleasant environment to spend time.</p> <p>Policy BELAP MOV9 – Facilitating All Modes: To ensure that all new routes, inclusive of those accommodating traffic, shall be designed and constructed in a manner that will facilitate the safe and easy movement of pedestrians and cyclists.</p> <p>Policy BELAP MOV 10 - To carry out a Transport Audit to investigate what improvements can be made to the existing transport network. This Plan/Audit should take place within one year of the adoption of the LAP.</p> <p>Policy BELAP MOV11 – Mobility Management: It is an objective of the Plan to foster and support a proactive mobility management approach and a culture of sustainable travel in new and existing developments.</p> <p>Policy BELAP MO12 – Cycling Infrastructure: It is an objective of the Plan to provide good quality end of trip facilities to encourage walking and cycling such as secure and weather proof bike stands, lockers, showers changing and drying rooms.</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

<p>Policy BELAP MOV13 – New Linkages: To provide or facilitate the delivery of the new linkages shown in Table 4.5 and Figure 4.11.</p>				
<p>Commentary:</p> <p>The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under Section 8.5 “Overall Findings”; and • Assessments of the selected alternatives for the Plan that are detailed in Section 7 “Evaluation of Alternatives”. <p>These policies contribute towards the planning framework for the future development of sustainable transport and movement Ballyogan and Environs and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.</p> <p>These provisions would primarily contribute towards maximising sustainable mobility and associated interactions with emissions to air (including noise and greenhouse gas emissions), energy usage, air quality and human health.</p> <p>The development of green routes, walkways, cycleways and elevated crossings of linear infrastructure presents a variety of potentially adverse effects (upon environmental components including biodiversity, flora and fauna, water and landscape) that would be likely to arise from both the construction and operation of such developments and/or their ancillary infrastructure. These types of infrastructure are often constructed in ecologically and visually sensitive areas such as those adjacent to the banks of rivers and streams. Potential adverse effects will be mitigated both by measures including those that have been integrated into the Local Area Plan and measures contained within the County Development Plan (see Section 9 of this report). The facilitation of journeys by car, in particular, would give rise to emissions to air.</p>				

8.6.3 Chapter 5: Residential Development and Built Form

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Residential Density – LAP Policy</p> <p>Policy BELAP RES1 – Density General: To achieve residential densities within the BELAP area sufficient to generate a critical mass of population to support and sustain commercial and community services and quality public transport infrastructure. Higher densities of population should be focused on services and not transport corridors alone.</p> <p>Policy BELAP RES2 – Density by Neighbourhood: Any residential scheme within each of the Neighbourhoods shall as a general rule have a target net density as set out in Table 5.4, subject to the provisions of any Site Development Frameworks, where applicable. Within the site boundary, any major and local distributor roads; primary schools, churches, local shopping etc.; open spaces serving a wider area; and significant landscape buffer strips shall be deducted from gross site area to give a figure for net site area. Policy BELAP RES3 – Building Height by Neighbourhood: The building heights of residential schemes shall be informed by the considerations set out in Table 5.5, unless otherwise indicated by the detailed provisions of any Site Development Frameworks, where applicable, and subject to Policy BELAP RES4 below.</p> <p>Policy BELAP RES4 – Locations for Higher Buildings: The locations identified as 'RES4' in Glencairn North, Kilgobbin South, Mimosa-Levmoss, Racecourse South, The Park Carrickmines, and Old Glenamuck Road are considered as suitable locations for higher buildings within the BELAP area (see Figure 11.1). It is anticipated that all bar one of these locations would be suitable for residential buildings, consistent with the prevailing zoning objective. The designation at The Park Carrickmines is subject to 'E' Zoning Objective, where residential is 'open for consideration' under the County Development Plan and as such, any proposed use mix would need to display compliance with this zoning objective.</p> <p>Policy BELAP RES5 – Building Height by Scheme:</p> <p>Any planning application for a scheme which proposes buildings in excess of 4 storeys shall be accompanied by an analysis of building height and positioning of buildings with reference to the following issues</p> <ul style="list-style-type: none"> • Impacts on the immediate and surrounding environment – streetscape, historic character. • Impacts on adjoining structures, with a focus on overlooking and impact on residential amenity. • Relationship to open spaces and public realm. • Views and vistas. • Daylight and sunlight, including shadow analysis where appropriate. • Wind and microclimate analysis • Impacts on residents of these buildings from noise sources such as motorway noise. • Place-making and the ability of taller buildings to assist with legibility and wayfinding within a Neighbourhood. <p>Policy BELAP RES6 – Housing Mix: Any planning application for new residential development within the BELAP area shall provide for a suitable mix of house types and sizes that meet the needs of a range of households and that both complement and enhance the existing residential mix. In locations where there is a dominance of any particular unit size or type, developments which contribute to a diversification of the housing stock shall be</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

<p>encouraged.</p> <p>Policy BELAP RES7 – Housing Design: To promote quality innovative housing designs. Residential Schemes of greater than 40 units shall be accompanied by a design statement.</p> <p>Policy BELAP RES8 – Build to Rent: To permit „Build to Rent“ schemes – as defined by Government Guidelines - in parts of the BELAP area with good access to transport and services, namely Glencairn North, Kilgobbin East, Kilgobbin, South, The Park Carrickmines, Old Glenamuck Road, and Racecourse South (see Figure 11.1), subject to compliance with Policy BELAP RES6 above. In recognition of the BELAP’s location at the edge of the built footprint of the Metropolitan Area, there will be a cautionary approach taken to Build to Rent schemes that propose levels of car parking significantly below what might be expected from a „traditional’ apartment scheme.</p> <p>Policy BELAP RES9 – Social Housing: To support the delivery and integration of the proposed council housing scheme at Ballyogan Court South (see Figure 11.1), and to pursue further opportunities for social and affordable housing throughout the BELAP area in an integrated manner, through ‘Part V’ housing, council own build, delivery by approved housing bodies, or otherwise, in line with the Council’s Housing Strategy.</p>				
<p>Commentary:</p> <p>The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under Section 8.5 “Overall Findings”; and • Assessments of the selected alternatives for the Plan that are detailed in Section 7 “Evaluation of Alternatives”. <p>These policies contribute towards the planning framework for residential and built form in the Plan area and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.</p> <p>By facilitating residential development at relevant locations across the well-serviced Ballyogan and Environs area that includes relatively low levels of sensitivities, these provisions would help to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects. By facilitating residential development on lands that are well-serviced by public transport (Luas and bus), these provisions would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).</p> <p>The construction and operation of all development has the potential to result in adverse effects upon all environmental components however these effects will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report. The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4.</p> <p>Various provisions in this Chapter would contribute towards sustainable development/the protection and management of the environment e.g.:</p> <ul style="list-style-type: none"> • Policy BELAP RES1 – Density General: “Generate a critical mass of population to support and sustain commercial and community services and quality public transport infrastructure”; and • Provisions in relation to building height that take into account the character and constraints of each of the Neighbourhoods (including noise sources), and proximity to existing and proposed services and public transport. 				

8.6.4 Chapter 6: Retail and Employment

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Stepaside Village Policy BELAP RET1 – Use Mix: To encourage a broad mix of day and evening uses within Stepaside Village, that contribute to the creation of a sustainable and vibrant Neighbourhood Centre that is the focus for retail, social and community interaction. New development shall be required to demonstrate how it complements or enhances the existing mix of uses. Policy BELAP RET2 – Public Realm: To explore potential public realm measures that could better balance the objectives of “movement” and “place” that achieves safety for all users. Policy BELAP RET3 – Design and Shop fronts: To require a high quality of design and finish for new shop fronts and signage that enhances the local streetscape and public realm. Policy BELAP RET4 – Retail Design Manual: To require that all new retail development is designed in accordance with the best practice principles set out in the “Retail Design Manual” - companion document to the Retail Planning Guidelines 2012. Policy BELAP RET5 – Residential Uses: To encourage an amount of residential use above ground floor level within this Neighbourhood Centre to maintain and improve the area’s vibrancy and vitality, providing that the Neighbourhood Centre’s prime land use objectives are complemented and not undermined</p> <p>Leopardstown Valley Policy BELAP RET6 – Use Mix: To encourage the continuation of a broad mix of day and evening uses at Leopardstown Valley that contribute to the creation of a sustainable and vibrant Neighbourhood Centre that is a focus for retail, social and community interaction. New development shall be required to demonstrate how it complements or enhances the existing mix of uses. Policy BELAP RET7 – Undeveloped Lands: To support and encourage the completion and full build-out of the remaining undeveloped lands at Leopardstown Valley. Future development proposals will be required to deliver public realm enhancements including coherent visual and physical integration with adjoining uses, a positive contribution to pedestrian and cyclist connectivity, and the incorporation of high quality hard and soft landscaping proposals. Policy BELAP RET8 – Convenience Floorspace: To take a cautionary position in relation to the consideration of additional convenience retail floorspace at Leopardstown Valley. Incremental growth of retail floorspace may be considered in line with population levels, and with reference to the growth of retail in other Neighbourhood Centres in the vicinity. Policy BELAP RET9 – Restaurants and Cafes: To encourage and facilitate the development of sit-in café/restaurant dining opportunities at Leopardstown Valley, particularly where it adds to the mix of uses, increases dwell time and enlivens and makes a positive contribution to the public realm</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

<p>Policy BELAP RET10 – Connection and Cohesion: Any redevelopment of the Leopardstown Valley Neighbourhood Centre shall improve connectivity between the two phases (old and new / south and north) of retail development in order to create a more unified and cohesive Neighbourhood Centre.</p> <p>Policy BELAP RET11 – Retail Design Manual: To require that all new retail development is designed in accordance with the best practice principles set out in the “Retail Design Manual” – companion document to the Retail Planning Guidelines 2012.</p> <p>Policy BELAP RET12 – Residential Uses: To encourage an amount of residential use above ground floor level within this Neighbourhood Centre to maintain and improve the area’s vibrancy and vitality, providing that the Neighbourhood Centre’s prime land use objectives are complemented and not undermined.</p> <p>Policy BELAP RET13 – Neighbourhood Centre: To provide for the development of a Neighbourhood Centre in the north-east quadrant of the Park, Carrickmines, with a net retail floorspace cap of 6000 sq.m. and a local level leisure facility, which will help meet the existing and future retail and leisure needs of the growth areas of Carrickmines, Stepside-Ballyogan and Kiltiernan-Glenamuck.</p> <p>Policy BELAP RET14 – Retail Warehousing: To take a cautionary approach and limit additional new retail warehousing/retail park floorspace at the Park Carrickmines in advance of a new Retail Strategy for the Greater Dublin Area.</p> <p>Policy BELAP RET15 – Retail Design Manual: To require that all new retail development is designed in accordance with the best practice principles set out in the “Retail Design Manual” – companion document to the Retail Planning Guidelines 2012.</p> <p>Policy BELAP RET16 – Residential Uses: To encourage an amount of residential use above ground floor level within this Neighbourhood Centre to maintain and improve the area’s vibrancy and vitality, providing that the Neighbourhood Centre’s prime land use objectives are complemented and not undermined.</p> <p>LAP Policies on Employment</p> <p>Policy BELAP EMP1 – Connectivity: To seek improved connectivity between the residential neighbourhoods of the BELAP area and key employment destinations, such as the established Sandymount Business District, the nascent new town of Cherrywood immediately to the south-east of the Plan Area, and the employment locations within the BELAP area.</p> <p>Policy BELAP EMP2 – The Park Carrickmines: To encourage and facilitate proposals for high intensity employment both at The Park, Carrickmines. Proposals for development at the Park will be managed with the aim of delivering high intensity employment uses, save for the delivery of a Neighbourhood Centre at the northeast quadrant, and a cautionary approach will be taken towards any supplementary uses. (See Figure 11.1).</p> <p>Policy BELAP EMP3 – Ballyogan South: To support the existing cluster of municipal, communication, light industrial and utility uses at Ballyogan South and to encourage comparable uses within this area. (See Figure 11.1).</p> <p>Policy BELAP EMP4 – Leopardstown Valley and Stepside: To support small scale office and employment development suitable for small-to-medium sized enterprises within the Leopardstown Valley and Stepside Neighbourhood Centres, particularly at above ground floor level. (See Figure 11.1).</p> <p>Policy BELAP EMP5 – Design: To ensure that all development of new and existing employment areas should have a strong focus on design, both in terms of the buildings themselves and also the public realm surrounding the buildings.</p>				
<p>Commentary:</p> <p>The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:</p>				

- Environmental effects detailed under Section 8.5 "Overall Findings"; and
- Assessments of the selected alternatives for the Plan that are detailed in Section 7 "Evaluation of Alternatives".

These policies contribute towards the planning framework for retail and employment development in the Plan area and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.

By facilitating retail and employment development at relevant locations across the well-serviced Ballyogan and Environs area that includes relatively low levels of sensitivities, these provisions would help to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects. By facilitating retail and employment development on lands that are serviced by public transport (Luas and bus), these provisions would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).

The construction and operation of all development has the potential to result in adverse effects upon all environmental components however these effects will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report. The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4.

Various provisions in this Chapter would contribute towards sustainable development/the protection and management of the environment e.g.:

- Policy BELAP RET1 – Use Mix: "creation of a sustainable and vibrant Neighbourhood Centre"
- Policy BELAP RET3 – Design and Shop fronts: "a high quality of design and finish ...that enhances the local streetscape and public realm"
- Policy BELAP RET4 and RET15 – Retail Design Manual: "that all new retail development is designed in accordance with the best practice principles set out in the "Retail Design Manual"
- Policy BELAP RET6 – Use Mix: "continuation of a broad mix of day and evening uses at Leopardstown Valley that contribute to the creation of a sustainable and vibrant Neighbourhood Centre"
- Policy BELAP RET7 – Undeveloped Lands: "full build-out of the remaining undeveloped lands at Leopardstown Valley.... coherent visual and physical integration with adjoining uses, a positive contribution to pedestrian and cyclist connectivity"
- Policy BELAP RET10 – Connection and Cohesion: "improve connectivity between the two phases (old and new / south and north) of retail development"
- Policy BELAP RET13 – Neighbourhood Centre: "development of a Neighbourhood Centre ... which will help meet the existing and future retail and leisure needs"
- Policy BELAP RET16 – Residential Uses: "an amount of residential use above ground floor level within this Neighbourhood Centre to maintain and improve the area's vibrancy and vitality"
- Policy BELAP EMP1 – Connectivity: "seek improved connectivity"
- Policy BELAP EMP2 – The Park Carrickmines: "encourage and facilitate proposals for high intensity employment both at The Park, Carrickmines"
- Policy BELAP EMP3 – Ballyogan South: "support the existing cluster of municipal, communication, light industrial and utility uses at Ballyogan South and to encourage comparable uses"
- Policy BELAP EMP4 – Leopardstown Valley and Stepside: "support small scale office and employment development ... within the Leopardstown Valley and Stepside Neighbourhood Centres"
- Policy BELAP EMP5 – Design: "ensure that all development of new and existing employment areas should have a strong focus on design"

8.6.5 Chapter 7: Built Heritage and Archaeology

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Policy BELAP BH1 – Urban Design: To promote high quality urban design with particular reference to the '12 Criteria' outlined in the 'Urban Design Manual - A Best Practice Guide' (2009).</p> <p>Policy BELAP BH2 – Protected Structures: To ensure that new development respects the significance of the Protected Structures within the BELAP area and responds to their historic spatial context and landscape setting and the opportunity presented by these buildings to create a unique feature and setting that enhance the sense of place for new communities.</p> <p>Policy BELAP A1 – Archaeological Assessment: To require Archaeological Impact Assessments, including an archaeological geophysical survey, with any Planning application for future redevelopment within lands containing, or adjoining, sites of archaeological interest, including recorded monuments</p> <p>Policy BELAP A2 – Archaeological Features: To incorporate historic features and archaeological remains into the design and layout of new development areas so as to link new development with its historical context and enhance the sense of unique identity. (See Figure 11.1)</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		
<p>Commentary:</p> <p>These provisions primarily contribute towards the protection of architectural and archaeological heritage and the landscape and will, in combination with the implementation of other provisions from the Plan, contribute towards the overall development of Ballyogan and Environs.</p> <p>The assessment against Strategic Environmental Objectives (SEOs) that is provided is consistent with both the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under Section 8.5 "Overall Findings"; and • Assessments of the selected alternatives for the Plan that are detailed in Section 7 "Evaluation of Alternatives". <p>The construction and operation of all development has the potential to result in adverse effects upon all environmental components however these effects will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report. The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4.</p>				

8.6.6 Chapter 8: Community Facilities

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Policy BELAP COM1 –Samuel Beckett Civic Campus: To support the implementation of Phase 2 of the Samuel Beckett Civic Campus development which will provide additional community facilities including, inter alia, a library and swimming pool for the growing community in the BELAP area. (See Figure 11.1)</p> <p>Policy BELAP COM2 – Co-location of Community Facilities: To promote optimum use of community and social infrastructure facilities and encourage the co-location of existing and future facilities including community centres, schools, childcare facilities, healthcare services, playgrounds and amenity spaces.</p> <p>Policy BELAP COM3 – Integration: To require the provision of community facilities such as multi-purpose community rooms as part of any residential development applications of greater than 50 units unless it can be shown that there is sufficient provision of such facilities in close proximity.</p> <p>Policy BELAP COM4 – School Provision: To continue to work with the Department of Education and Skills to ensure the timely delivery of Primary and Post-Primary schools in the BELAP area. Three school sites have been identified within the BELAP area at Kilgobbin South, Glencairn North, and Racecourse South as shown on Figure 11.1. The landowner/developers of these sites shall enter discussions with the Department of Education and Skills prior to entering pre-planning with the Planning Authority to agree phasing for the delivery of the school.</p> <p>Policy BELAP COM5 – School Facilities: To promote and support the use and access to school facilities including assembly halls, sporting and recreation facilities within school grounds after school teaching hours, at weekends and during school holidays by the wider community in order to augment the level of meeting space and sporting and recreational facilities available within the BELAP area and potentially provide additional revenue to schools.</p> <p>Policy BELAP COM6 – Lifelong Learning: To promote and facilitate lifelong learning through the optimum use of educational buildings in the BELAP area in the evenings and during school holidays.</p> <p>Policy BELAP COM7 – Childcare Facilities: That all planning applications for larger residential developments to be required to provide one childcare facility (equivalent to a minimum of 20 child places) for every 75 dwelling units unless it can be satisfactorily demonstrated that there is already adequate childcare provision in the area. The provision of childcare facilities within the Plan area shall be carried out in accordance with the provisions set out in Section 8.2.4.11 "Childcare Facilities – Parking/Access" and Section 8.2.12.1 "Childcare" of the County Development Plan 2016-2022 and the provisions of the DoEHLG "Childcare Facilities Guidelines for Planning Authorities" (2001).</p> <p>Policy BELAP COM8 – The Park Carrickmines: To encourage the provision of childcare facilities within The Park Carrickmines, a major employment area within the BELAP area. (See Figure 11.1)</p> <p>Policy BELAP COM9 – Co-location of Childcare Facilities: To continue to support and facilitate the co-location of childcare provision with schools and other community facilities in the BELAP area.</p> <p>Policy BELAP COM10 – Healthcare: To support and facilitate the provision of healthcare facilities, including the provision of community-based primary care facilities in appropriate locations, and in particular within Neighbourhood Centres. The co-location of these services with other community facilities will be encouraged.</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

<p>(See Figure 11.1)</p> <p>Policy BELAP COM11 – Housing for All: To facilitate the provision of independent and/or assisted living for older people and people with disabilities/mental health issues by supporting the provision of purpose built accommodation, or adaptation of existing properties, and promoting the development of residential schemes capable of adapting to changing household needs in line with the principles of ‘Lifetime Homes’, or providing opportunities for older people to ‘downsize’ within their community by ensuring that a wide variety of housing and apartment types, sizes and tenures is provided within the BELAP area. (See also BELAP COM13 – Universal Design). It is accepted that the provision of such housing types may reduce residential densities within schemes. Developments proposed as purpose-built accommodation for a specific group must show how this objective can be secured long-term.</p> <p>Policy BELAP COM12 – Nursing Home Facilities: To encourage and support the provision of nursing homes and assisted living accommodation within the BELAP area and to require that such developments meet the standards set out in Section 8.2.3.4 (xiii) ‘Nursing Homes for the Elderly/Assisted Living Accommodation’ of the County Development Plan 2016-2022 and the ‘National Standards for Residential Care Settings for Older People in Ireland’ (HIQA 2016).</p> <p>Policy BELAP COM13 – Universal Design: That all proposals for development have regard to the provisions of the ‘Building for Everyone: A Universal Design Approach’ series of booklets by the National Disability Authority and Centre of Excellence in Universal Design in order to ensure that all buildings and associated areas of public realm can be used to the greatest extent possible by all people, regardless of age, ability or disability.</p> <p>Policy BELAP COM14 – Public Realm: To facilitate the delivery of improvements to the public realm, with particular focus on Stepside Village Centre, Leopardstown Valley, The Park Carrickmines, and in the vicinity of the Samuel Beckett Civic Campus. (See Figure 11.1)</p>				
<p>Commentary:</p> <p>The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under Section 8.5 “Overall Findings”; and • Assessments of the selected alternatives for the Plan that are detailed in Section 7 “Evaluation of Alternatives”. <p>These policies contribute towards the planning framework for community development in the Plan area and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.</p> <p>By facilitating community development at relevant locations across the well-served Ballyogan and Environs area that includes relatively low levels of sensitivities, these provisions would help to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects. By facilitating community development on lands that are well-served by public transport (Luas and bus) and close to existing and planned residential and employment communities, these provisions would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).</p> <p>The construction and operation of all development has the potential to result in adverse effects upon all environmental components however these effects will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report. The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4.</p> <p>Various provisions in this Chapter would contribute towards sustainable development/the protection and management of the environment including those relating to universal design and the public realm.</p>				

8.6.7 Chapter 9: Leisure and Environment

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Policy BELAP ENV1 – Masterplan for Jamestown Park: To support and facilitate the development of a detailed Masterplan for Jamestown Park to be informed by the following aims and objectives:</p> <ul style="list-style-type: none"> – To provide new linkages and connections into and through the Park in accordance with the Proposed Linkages (see Figure 4.11 and Appendix 2) set out in the Transportation and Movement Chapter of the Plan. – To provide an appropriate level of children’s play facilities. – To develop high quality active recreation facilities, available to a wide and diverse range of the population in order to encourage a more active lifestyle. – To provide high quality passive recreational facilities including rest and relaxation spaces in appropriate locations. – To encourage community participation and education throughout the Park. – To encourage the use of sustainable energy sources throughout the Park. – To capitalise on the large size of the park, and the opportunity to provide amenities that benefit the broader County and Region. – To maximise the biodiversity and pollinator potential of the Park through sustainable maintenance policies that seek to minimise or eliminate the use of herbicides. – To preserve, protect, and incorporate existing archaeological and natural features within the park’s layout. – To protect environmental resources in the development and operation of Jamestown Park. <p>Policy BELAP ENV2 – Samuel Beckett Civic Campus: To support the implementation of Phase 2 of the Samuel Beckett Civic Campus development which will include a park connecting the playing pitches with viewing benches and spectator areas. (See Figure 11.1)</p> <p>Policy BELAP ENV3 – Hierarchy of Open Space: To ensure that an appropriate hierarchy of open spaces is provided that is able to cater for a range of functions to meet the needs of the growing population in the BELAP area.</p> <p>Policy BELAP ENV4 – Residential and Non-Residential Development: To promote the provision of high quality open space in residential scheme and also in non-residential schemes, where it is important to provide opportunities to socialise, recreate, and exercise.</p> <p>Policy BELAP ENV5 – Diversity of Users: To ensure that the layout and provision of public, communal and private open space is clearly delineated, offers adequate play opportunities and provides access to and facilities for a diversity of users irrespective of age or ability, having regard to their safety, comfort and enjoyment.</p> <p>Policy BELAP ENV6 – Routes through Parkland: To improve, enhance and develop green pedestrian and cycle routes within and adjacent to parkland and amenity areas to create a network of green corridors across the Plan area. Policy BELAP ENV7 – Links to Adjoining: That development proposals be required to illustrate</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

<p>potential pedestrian/cycle links to adjoining lands in order to create new connections to green areas within urban areas.</p> <p>Policy BELAP ENV8 – 8 Acre Field: To support the development of the existing sports facilities at the site known as the '8-acre field' to provide a range of recreational options for this growing area. (See Figure 11.1)</p> <p>Policy BELAP ENV9 – Playing Pitches in Racecourse South: To explore the provision of playing pitches within the Racecourse South lands. (See Figure 11.1 and Racecourse South Site Development Framework Figure 12.4)</p> <p>Policy BELAP ENV10 – County Development Plan Provisions: That all proposals for development demonstrate compliance with relevant County Development Plan provisions relating to sustainable development and the protection of the environment, including those listed on Table 9.1 of the SEA Environmental Report that accompanies this Plan.</p> <p>Policy BELAP ENV11 – Construction Management Plans: That Construction Management Plans include details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity including bats.</p> <p>Policy BELAP ENV12 – Badger Setts: That any badger setts within the Plan area be protected insofar as possible through the provisions of adequate buffers between the setts and proposed development or as otherwise agreed by the National Parks and Wildlife Services prior to commencement of development.</p> <p>Policy BELAP ENV13 – Habitats Survey: Planning applications for development in areas of environmental sensitivity will be required to provide an updated habitat and protected mammal survey.</p>				
<p>Commentary:</p> <p>The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under Section 8.5 "Overall Findings"; and • Assessments of the selected alternatives for the Plan that are detailed in Section 7 "Evaluation of Alternatives". <p>These policies contribute towards the planning framework for leisure development and environmental protection/management in the Plan area and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.</p> <p>By facilitating leisure development and allowing for appropriate levels of environmental protection/management at relevant locations across the well-served Ballyogan and Environs area that includes relatively low levels of sensitivities, these provisions would help to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects. By facilitating leisure development on lands that are well-served by public transport (Luas and bus) and close to existing and planned residential and employment communities, these provisions would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).</p> <p>The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4. Leisure and associated development within the Jamestown Park area would have the potential, if unmitigated, to adversely impact upon the former landfill and as a result adversely impact upon environmental media. The effects of this and other development provided for by this Chapter will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report, including some of the policies that are included under the Plan Chapter 9 "Leisure and Environment".</p> <p>The Masterplan for Jamestown Park would have to comply with the provisions of the Local Area Plan including the mitigation measures detailed at Section 9 of this report. The Masterplan may have to be subject to its own public consultation and environmental assessment processes as relevant.</p> <p>Various provisions in this Chapter would contribute towards sustainable development/the protection and management of the environment e.g.:</p> <ul style="list-style-type: none"> • Policy BELAP ENV1 – Masterplan for Jamestown Park: "new linkages and connection", "ensure the Park is designed to cater for the future needs of its users while recognising its limitations as a former landfill", "maximise the biodiversity and pollinator potential of the Park through sustainable maintenance policies that seek to minimise or eliminate the use of 				

- herbicides”, “preserve the Pale Ditch and Ballyogan Stream” and “protect environmental resources in the development and operation of Jamestown Park”.
- Policy BELAP ENV3 – Hierarchy of Open Space: “ensure that an appropriate hierarchy of open spaces is provided”
- Policy BELAP ENV6 – Green Infrastructure: “create new connections to green areas within urban areas”
- Policy BELAP ENV8 – 8 Acre Field: “support the development of the existing sports facilities”
- Policy BELAP ENV9 – County Development Plan Provisions: “That all proposals for development demonstrate compliance with relevant County Development Plan provisions relating to sustainable development and the protection of the environment”
- Policy BELAP ENV10 – Construction Management Plans: “appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity including bats”
- Policy BELAP ENV11 – Badger Sets: “That any badger setts within the Plan area be protected insofar as possible through...”

8.6.8 Chapter 10: Sustainable Infrastructure

For an explanation of SEO codes e.g. **B1, B2, B3, PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Policy BELAP SI1 – Established and Planned Infrastructure and Services: To facilitate the continued use of established and planned infrastructure and services including those relating to transport, drainage, waste management and waste water, drinking water.</p> <p>Policy BELAP SI2 – Supporting Irish Water: To support Irish Water in the provision of adequate water and waste water treatment infrastructure to serve the needs of the existing and future population of the Plan area and ensuring that such infrastructure is provided prior to, or in tandem with, new development.</p> <p>Policy BELAP SI3 – Wastewater Treatment: To facilitate Irish Water in ensuring that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance.</p> <p>Policy BELAP SI4 – Water Framework Directive: To facilitate compliance with the requirements of the EU Water Framework Directive and any relevant legislation. In this regard, the Council will facilitate compliance with the relevant objectives and measures set out in the River Basin Management Plan 2018-2021, or its successor, and associated Programme of Measures, where relevant.</p> <p>Policy BELAP SI5 – Surface Waters Regulations: To ensure the implementation of the surface water legislation Environmental Objectives (Surface Waters) Regulations 2009 to ensure that development permitted would not have an unacceptable impact on water quality including surface waters, ground water, river corridors, estuarine waters, bathing waters, coastal and transitional waters.</p> <p>Policy BELAP SI6 – Jamestown Park: That any works to the remediated landfill at Jamestown - including any works to further the objective to create a new public park at this location - would afford sufficient protection to surface water and groundwater systems.</p> <p>Policy BELAP SI7 – SuDS: To ensure that Sustainable Drainage Systems (SuDS) is applied to any development in the BELAP area and that site specific solutions to surface water drainage systems are developed which meet the requirements of the Water Framework Directive and associated River Basin Management Plan. SuDS measures may include green roofs, permeable paving, detention basins, water butts, infiltration etc.</p> <p>Policy BELAP SI8 – Public Open Space: Where Sustainable Drainage Systems (SuDS) measures are</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

<p>integrated successfully into the layout of public open space in a comprehensive overall design, these areas may be counted as satisfying part of the public open space requirement in quantitative terms up to a maximum level of 20% of the overall public open space requirement. Areas prone to periodic flooding may be incorporated within public open space.</p> <p>Policy BELAP SI9 – Groundwater: To ensure the protection of groundwater resources within the BELAP boundary and associated habitats and species in accordance with the EU Groundwater Directive. All new planning applications within the BELAP boundary shall have regard to the likely impacts the proposed development may have on groundwater resources.</p> <p>Policy BELAP SI11 – Flood Risk Assessment: To require all proposed developments to carry out a Site-Specific Flood Risk Assessment that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> • The Planning System and Flood Risk Management, Guidelines for Planning Authorities (DEHLG / OPW, 2009), as may be revised and/or updated. • The prevailing Dún Laoghaire-Rathdown County Development Plan. • Any SSFRA shall not be required to carry out a Plan-Making Justification Test, given that this exercise was already carried out at County Development Plan-level. A review of this process was also undertaken as part of the preparation of this Local Area Plan (LAP). • The SSFRA shall pay particular emphasis to site specific mitigation measures and any necessary management measures, as per Appendix B4 of the above 2009 National Guidelines. <p>Policy BELAP SI11 – Sediment Control: That best practice sediment control measures will be used for all developments.</p> <p>Policy BELAP SI12 – Services: To seek the undergrounding of all electricity, telephone and television cables wherever possible, in the interests of visual amenity.</p>				
<p>Commentary:</p> <p>The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under Section 8.5 “Overall Findings”; and • Assessments of the selected alternatives for the Plan that are detailed in Section 7 “Evaluation of Alternatives”. <p>These policies contribute towards the planning framework for sustainable infrastructure in the Plan area and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.</p> <p>By facilitating the future development of sustainable infrastructure these provisions would primarily result in environmental protection and management, including the protection of water resources, human health and ecology, management of flood risk and the provision of water and waste management services: within the well-served Ballyogan and Environs area that includes relatively low levels of environmental sensitivities; and beyond the Plan area, by helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the County. Nonetheless, certain types of infrastructure and development that are required to contribute towards the protection of the environment have the potential, including during construction, to adversely impact upon the environment.</p> <p>This Chapter facilitates water services development and the protection of water resources. By protecting water resources, appropriately treating waste water and providing safe drinking water the protection of various environmental components would be contributed towards including human health, biodiversity, flora and fauna, the status of waters, flood risk management and soil. There would be potential for significant adverse environmental effects upon various environmental components to arise during construction and operation e.g. outflow could conflict with various components; and abstracting water could conflict with various components. Potential adverse effects will be mitigated by measures which have been integrated into the Plan (see Section 9). The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4.</p> <p>This Chapter facilitates the management of flood risk and surface water drainage. These provisions would benefit the protection of human health, biodiversity, flora and fauna, cultural heritage,</p>				

water status and existing infrastructure and services. Flood risk management infrastructure (if required) has the potential to result in significant adverse environmental effects during construction and operation on most environmental components. These types of infrastructure are often constructed in ecologically and visually sensitive areas and adjacent to the banks of rivers and streams. Potential adverse effects will be mitigated both by measures which have been integrated into the Plan (see Section 9) and by measures arising from lower tier assessments.

This Chapter includes provisions for undergrounding electricity, telephone and television cables where possible. Undergrounding would reduce visual impact in the longer term but would have the potential to result in adverse effects upon various environmental components however - effects will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report.

8.6.9 Chapters 12 and 13: Site Development Frameworks

For an explanation of SEO codes e.g. **B1, B2, B3, PHH1**, etc. refer to Table 8.1 on page 58.

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>Racecourse South - Design Principles and Strategic Objectives</p> <p>Policy BELAP SDF1 – Masterplan: A Masterplan for the entire SDF area shall be prepared and accompany all planning applications for significant development at these lands. The Masterplan shall accord with the Guiding Principles set out in this Site Development Framework, developing them to a more detailed level.</p> <p>Policy BELAP SDF2 – Consistency Statement: All planning applications shall be accompanied by a 'Consistency Statement' detailing how each of the Guiding Principles in this SDF is to be delivered.</p> <p>Guiding principles on vision, CDP 2016 Specific Objectives, land uses, density, building height, housing mix, design guidance, movement, landscape and spaces and phasing are provided within the main body of the Plan – please refer to Section 12 of that document.</p> <p>Kilgobbin - Design Principles and Strategic Objectives</p> <p>Policy BELAP SDF3 – Application of Guiding Principles: All planning applications for development shall accord with the Guiding Principles set out in this SDF and will be required to demonstrate considered and appropriate integration with adjoining lands, with a particular emphasis on the timely delivery of necessary access and permeability routes.</p> <p>Policy BELAP SDF4 – Consistency Statement: All planning applications shall be accompanied by a 'Consistency Statement' detailing how each of the Guiding Principles in this SDF is to be delivered.</p> <p>Guiding principles on vision, CDP 2016 Specific Objectives, land uses, density, building height, housing mix, design guidance, movement, landscape and spaces and phasing are provided within the main body of the Plan – please refer to Section 12 of that document.</p> <p>Commentary:</p>	<p>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>	<p>B2 B3 PHH1 PHH2 S1 W1 W2 W3 AC1 AC2 AC3 M1 M2 M3 M4 CH1 CH2 L1 L2</p>		

The assessment against Strategic Environmental Objectives (SEOs) provided is consistent with the:

- Environmental effects detailed under Section 8.5 "Overall Findings"; and
- Assessments of the selected alternatives for the Plan that are detailed in Section 7 "Evaluation of Alternatives".

These policies contribute towards the planning framework for Racecourse South and Kilgobbin neighbourhoods and will, in combination with the implementation of other provisions from the Plan and other plans and programmes, contribute towards the overall development of Ballyogan and Environs.

By facilitating the development of these neighbourhoods within the well-serviced Ballyogan and Environs area that includes relatively low levels of sensitivities, these provisions would help to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects. By facilitating development of lands that are well-serviced by public transport (Luas and bus), these provisions would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).

Both Site Development Frameworks provide for indicative modulated densities for that are informed by environmental sensitivities, including proximity to existing transport and residential development.

Any Masterplan for Racecourse South would have to comply with the provisions of the Local Area Plan including the mitigation measures detailed at Section 9 of this report. The Masterplan may have to be subject to its own public consultation and environmental assessment processes as relevant.

The construction and operation of all development has the potential to result in adverse effects upon all environmental components however these effects will be mitigated by provisions which have been integrated into the Plan, including those which are identified in Section 9 of this report. The potential adverse effects (if unmitigated) and associated residual effects after mitigation would be consistent with those detailed on Table 8.4.

Section 9 Mitigation Measures

9.1 Introduction

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Plan. Various environmental sensitivities and issues have been communicated to the Council through the SEA process.

By integrating SEA recommendations into the Plan, the Council has helped to ensure that:

- The potential significant adverse effects of implementing the Plan are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan are maximised.

Mitigation was achieved through the following:

- Early work undertaken by the Council that will contribute towards environmental protection and sustainable development;
- Consideration of alternatives; and
- Integration of individual measures into the Local Area Plan and the existing County Development Plan.

9.2 Early and strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development

Far in advance of the placing of the Plan (and associated documents) on public display, Dún Laoghaire-Rathdown County Council undertook various work in order to inform the preparation of the Plan. This included:

- Undertaking detailed Pre-Draft Public Consultation on the content of the Plan;
- Beginning the SEA early enough in the process so that it could inform the Plan; and
- Assembling and analysing data from various sources to inform Plan provisions relating to transport and movement, residential development and built form, retail and employment, built heritage and archaeology, community facilities, leisure, environment and sustainable infrastructure.

The findings of this early and strategic work have been integrated into the Plan and will contribute towards environmental protection and sustainable development within the Ballyogan area and wider County.

9.3 Consideration of Alternatives

Although strategic alternatives in relation to the content of the Plan were significantly limited for the LAP (see Section 6), as part of the Plan preparation/SEA process, the Council considered a number of alternatives for the Plan.

These alternatives were assessed by the SEA process (see Section 7) and the findings of this assessment informed the selection of preferred alternatives, facilitating an informed choice with respect to the type of Plan that was prepared and placed on public display.

9.4 Integration of individual measures into LAP and the County Development Plan

Various provisions have been integrated into the text of the Ballyogan and Environs Local Area Plan over multiple iterations through the Plan-preparation and SEA process.

In addition to the mitigation measures that have been integrated into Ballyogan and Environs Plan, as identified by Policy BELAP ENV10 "County Development Plan Provisions", all development is required to demonstrate compliance with relevant County Development Plan provisions relating to sustainable development and environmental protection. These measures include those listed on Table 9.1 overleaf. Table 9.1 links key mitigation measure(s) from both the Ballyogan and Environs Plan and the existing County Development Plan to the potential adverse effects of implementing the Ballyogan and Environs Plan, if unmitigated.

The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.

Table 9.1 Integration of Environmental Considerations

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Suggested Mitigation for integration into the Ballyogan LAP	Integrated into the Plan
All	All	n/a	Provide for modulated densities of development that are informed by environmental sensitivities, including proximity to existing transport and residential development.	Integrated into Site Development Frameworks
All	All	n/a	County Development Plan provisions All proposals for development must demonstrate compliance with relevant County Development Plan provisions relating to sustainable development and the protection of the environment, including those listed on Table 9.1 of the SEA Environmental Report that accompanies this Plan.	Policy BELAP ENV10 – County Development Plan Provisions That all proposals for development demonstrate compliance with relevant County Development Plan provisions relating to sustainable development and the protection of the environment, including those listed on Table 9.1 of the SEA Environmental Report that accompanies this Plan.
All	All	n/a	Construction Management Plans Construction Management Plans that may be required under Section 8.2.4.14 of the County Development Plan shall include details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity including bats.	Policy BELAP ENV11 – Construction Management Plans That Construction Management Plans include details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity including bats.
Biodiversity and Flora and Fauna	Arising from both construction and operation of development: <ul style="list-style-type: none"> Loss of/damage to biodiversity in designated 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 bats. 	<ul style="list-style-type: none"> Policy LHB19: Protection of Natural Heritage and the Environment Policy LHB20: Habitats Directive Policy LHB22: Designated Sites Development Management 8.2.2 (v) Appropriate Assessment Development Management 8.2.9.4 Appropriate Assessment Development Management 8.2.9.6 Light Pollution Development Management 8.2.7.1 Biodiversity Policy EI1: Water Supply & Appropriate Assessment Policy EI2: Wastewater Treatment & Appropriate Assessment Policy EI3: Surface Water Drainage & Appropriate Assessment Policy EI4: Groundwater Protection & Appropriate Assessment Policy LHB23: Non-Designated Areas of Biodiversity Importance Policy LHB 24: County-Wide Ecological Network Policy LHB25 Rivers and Waterways Policy LHB26: Hedgerows Policy LHB29: Invasive Species <p>Also see measures related to soil, water quality, air and material assets.</p>	Badger Sets Any badger setts within the Plan area shall be protected insofar as possible through the provisions of adequate buffers between the sett and proposed development or as otherwise agreed by the NPWS prior to commencement of development. Policy BELAP ENV13 – Habitats Survey Planning applications for development in areas of environmental sensitivity will be required to provide an updated habitat and protected mammal survey.	Policy BELAP ENV12 – Badger Sets That any badger setts within the Plan area be protected insofar as possible through the provisions of adequate buffers between the setts and proposed development or as otherwise agreed by the National Parks and Wildlife Services prior to commencement of development.
Population and Human Health	<ul style="list-style-type: none"> Spatially concentrated deterioration in human health/interactions if effects upon environmental vectors such as water and air are not mitigated. 	<ul style="list-style-type: none"> Development Management 8.2.9 Environmental Management Policy CC10: Radon Gas Policy EI25: Major Accidents Policy EI20: Air and Noise Pollution <p>Also see measures related to soil, water and material assets.</p>	n/a	n/a
Soil	<ul style="list-style-type: none"> Adverse impacts such as those relating to subsidence or contamination arising from development provided for by the Plan at the historic Ballyogan landfill. Loss of an extent of soil function arising from the replacement of semi- 	<ul style="list-style-type: none"> Policy OSR9: Former Ballyogan Landfill Policy EI19: Rehabilitation of the Former Ballyogan Landfill Policy LHB27: Geological Sites Development Management 8.2.9 Environmental Management <p>Also see measures related to biodiversity, flora and fauna and water and material assets.</p>	n/a	n/a

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Suggested Mitigation for integration into the Ballyogan LAP	Integrated into the Plan
Water	<p>natural land covers with artificial surfaces.</p> <ul style="list-style-type: none"> Adverse impacts upon the status and quality of water bodies, including bathing waters, arising from changes in quality, flow and/or morphology. Increase in the risk of flooding. 	<ul style="list-style-type: none"> Policy EI22: Water Pollution Policy E13: Surface Water Drainage & Appropriate Assessment Policy E14: Groundwater Protection & Appropriate Assessment Policy EI6: Integrated Water Management Plans Policy EI7: Water Quality Management Plans Policy EI8: Sustainable Drainage Systems* Policy EI10: Storm Overflows of Sewage to Watercourses Policy CC14: Catchment Flood Risk Assessment and Management (CFRAM) Policy CC15: Flood Risk Management Policy EI8: Sustainable Drainage Systems Policy EI9: Stormwater Impact Assessments Policy LHB25 Rivers and Waterways <p>Also see measures related to soil, biodiversity, flora and fauna and material assets.</p>	<p>SFRA recommendations to be integrated into the Plan</p>	<p>Policy BELAP SI7 – SuDS To ensure that Sustainable Drainage Systems (SuDS) is applied to any development in the BELAP area and that site specific solutions to surface water drainage systems are developed which meet the requirements of the Water Framework Directive and associated River Basin Management Plan. SuDS measures may include green roofs, permeable paving, detention basins, water butts, infiltration etc.</p> <p>Policy BELAP SI11 – Flood Risk Assessment To require all proposed developments to carry out a Site-Specific Flood Risk Assessment that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> The Planning System and Flood Risk Management, Guidelines for Planning Authorities (DEHLG / OPW, 2009), as may be revised and/or updated. The prevailing Dún Laoghaire-Rathdown County Development Plan. Any SSFRA shall not be required to carry out a Plan-Making Justification Test, given that this exercise was already carried out at County Development Plan-level. A review of this process was also undertaken as part of the preparation of this Local Area Plan (LAP). The SSFRA shall pay particular emphasis to site specific mitigation measures and any necessary management measures, as per Appendix B4 of the above 2009 National Guidelines.
Material Assets	<ul style="list-style-type: none"> Failure of development to be accompanied by adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Increases in waste levels. 	<ul style="list-style-type: none"> Policy EI5: Water Supply and Wastewater Policy EI11: Water Services Investment Programme Development Management 8.2.9.3 Environmental Impact Assessment Policy EI12: Waste Management Strategy Policy EI13: Waste Plans Policy EI14: Private Waste Companies Policy EI15: Waste Prevention and Reduction Policy EI16: Waste Re-use and Recycling Policy EI17: Refuse Disposal Policy EI18: Hazardous Waste Policy EI19: Rehabilitation of the Former Ballyogan Landfill Policy OSR9: Former Ballyogan Landfill 	<p>Established and Planned Infrastructure and Services Facilitate the continued use of established and planned infrastructure and services including those relating to transport, drainage, waste management and waste water, drinking water.</p>	<p>Policy BELAP SI1 – Established and Planned Infrastructure and Services To facilitate the continued use of established and planned infrastructure and services including those relating to transport, drainage, waste management and waste water, drinking water.</p>

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Suggested Mitigation for integration into the Ballyogan LAP	Integrated into the Plan
Air and Climatic Factors	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<ul style="list-style-type: none"> Provisions of Section 2 “Sustainable Communities Strategy” Policy CC1: National Climate Change Adaptation Framework Policy CC2: Development of National Climate Change Policy and Legislation Policy CC3: Development of National Energy Policy and Legislation Policy CC4: Sustainable Energy Action Plan Policy CC5: Limiting Emissions of Greenhouse Gases 	<p>Climate Adaptation and Mitigation</p> <p>In implementing the Plan, the Council will support relevant provisions contained in the National Climate Change Adaptation Framework (2018), the National Mitigation Plan (2017), the National Energy and Climate Plan, the emerging Dún Laoghaire-Rathdown Climate Change Action Plan and any Regional Decarbonisation Plan prepared on foot of commitments included in the emerging Regional Spatial and Economic Strategy for the Eastern and Midland Region.</p> <p>Implementation of the Plan will take into account relevant targets and actions arising from sectoral adaptation plans that will be prepared to comply the requirements of the Climate Action and Low Carbon Development Act 2015, including those seeking to contribute towards the National Transition Objective, to pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050.</p>	<p>10.2.2. Plans and Programmes relating to Climate Change</p> <p>In implementing the Plan, the Council will support relevant provisions contained in the National Climate Change Adaptation Framework (2018), the National Mitigation Plan (2017), the National Energy and Climate Plan, the emerging Dún Laoghaire-Rathdown Climate Change Action Plan and any Regional Decarbonisation Plan prepared on foot of commitments included in the emerging Regional Spatial and Economic Strategy for the Eastern and Midland Region. Implementation of the Plan will take into account relevant targets and actions arising from sectoral adaptation plans that will be prepared to comply the requirements of the Climate Action and Low Carbon Development Act 2015, including those seeking to contribute towards the National Transition Objective, to pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050.</p>
Cultural Heritage	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture. 	<ul style="list-style-type: none"> Policy AH1: Protection of Archaeological Heritage Policy AH2: Protection of Archaeological Material in Situ Policy AH3: Protection of Historic Towns Policy AH4: Carrickmines Castle Site Policy AH5: Historic Burial Grounds Policy AH6: Underwater Archaeology Policy AR1: Record of Protected Structures Policy AR2: Protected Structures Applications and Documentation Policy AR3: Protected Structures and Building Regulations Policy AR4: National Inventory of Architectural Heritage (NIAH) Policy AR5: Buildings of Heritage Interest Policy AR6: Protection of Buildings in Council Ownership Policy AR7: Energy Efficiency of Protected Structures Policy AR8: Nineteenth and Twentieth Century Buildings, Estates and Features Policy AR9: Protection of Historic Street Furniture Policy AR11: Industrial Heritage Policy AR12: Architectural Conservation Areas Policy AR15: Public Realm and Public Utility works within an ACA 	n/a	n/a
Landscape	<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"> Policy LHB2: Preservation of Landscape Character Areas Policy LHB4: High Amenity Zones Policy LHB5: Historic Landscape Character Areas Policy LHB6: Views and Prospects Policy EI21: Light Pollution Development Management 8.2.9 Environmental Management 	n/a	n/a

Section 10 Monitoring Measures

10.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures that will be used in order to monitor the likely significant effects of implementing the Plan.

Monitoring can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

10.2 Indicators and Targets

Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in Section 5 and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) that were identified with regard to the relevant strategic actions.

Table 10.1 overleaf shows the indicators and targets that have been selected for monitoring the likely significant environmental effects of implementing the Plan, if unmitigated.

The Monitoring Programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

10.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

Internal monitoring of the environmental effects of grants of permission in the Council can provide monitoring of various indicators

and targets on a *grant of permission*³⁹ basis. Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

10.4 Reporting and Responsibility

A stand-alone Monitoring Report on the significant environmental effects of implementing the Plan will be prepared during implementation of the Plan, in advance of the beginning of the review of the Plan. This report will address the indicators set out below.

The Council is responsible for the implementation of the SEA Monitoring Programme including ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of corrective action.

10.5 Thresholds

Thresholds at that corrective action will be considered include:

- The occurrence of flood events;
- Court cases taken by the Department of Arts, Heritage, Regional, Rural and the Gaeltacht regarding impacts upon archaeological heritage including

³⁹ The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. By documenting this determination (e.g. whether a proposed development will impact upon a Protected Structure or whether a proposed development can be adequately served with water services) while granting permissions, or at a later date, the requirement to monitor the effects of implementing the Plan can be achieved. Lower tier environmental assessment and decision making – including review of project approvals granted and associated documents – will inform the monitoring programme.

entries to the Record of Monuments and Places;

- Complaints received from statutory consultees regarding avoidable environmental impacts resulting from development that is granted permission under the Plan;
- Boil notices on drinking water; and
- Fish kills.

Table 10.1 Selected Indicators, Targets and Monitoring Sources

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source(s):
Biodiversity, Flora and Fauna	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Department of Culture, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). Department of Culture, Heritage and the Gaeltacht National Monitoring Report for the Birds Directive under Article 12 (every 3 years). Consultations with the NPWS.
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). CORINE mapping resurvey (every c. 5 years). Review of Council Ecological Network Mapping
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan B3ii: Number of significant impacts on the protection of listed species	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan B3ii: No significant impacts on the protection of listed species	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Population and Human Health	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	<ul style="list-style-type: none"> Consultations with EPA and Health Service Executive.
	PHH2 (and L1): Disruption to use of and access to amenities including parklands and playing fields	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands and playing fields	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Parks Department.
Soil	S1: Soil extent and hydraulic connectivity	S1: To minimise reductions in soil extent and hydraulic connectivity	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Water	W1: Interactions with classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) resulting from development provided for by the Plan	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status', subject to exemptions provided for by Article 4 of the WFD ⁴⁰	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).

⁴⁰ Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the relevant River Basin Management Plan.

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Environmental Component	Selected Indicator(s)	Selected Target(s)	Source(s):
	W2: Interactions with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC resulting from wind energy development (including associated development) permitted by planning authorities adhering to the Guidelines	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC, subject to exemptions provided for by Article 4 of the WFD	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).
	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with The Planning System and Flood Risk Management Guidelines for Planning Authorities	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Material Assets	M1: Number of new developments granted permission which can be adequately and appropriately served with wastewater treatment over the lifetime of the Plan	M1: All new developments granted permission to be connected to and adequately and appropriately served by wastewater treatment over the lifetime of the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
	M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan	<ul style="list-style-type: none"> EPA The Provision and Quality of Drinking Water in Ireland reports (multi-annual). EPA Remedial Action List (every quarter).
	M3i: Preparation and implementation of construction and environmental management plans M3ii: Total collected and brought household waste M3iii: Packaging recovered (t) by self-complying packagers	M3i: For construction and environmental management plans to be prepared and implemented for relevant projects M3ii: Minimise increases in and, where possible, reduce household waste generation M3iii: Maximise increases in packaging recovered (t) by self-complying packagers	<ul style="list-style-type: none"> Submission of construction and environmental management plans for relevant projects EPA National Waste Reports EPA Ireland's Environment Reports
	M4: Extent of developed areas within the catchment of public transport infrastructure and services and walking and cycling infrastructure	M4: To maximise the extent of developed areas within the catchment of public transport infrastructure and services and walking and cycling infrastructure	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Air and Climatic Factors	AC1i: Compliance with Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive and associated legislation AC1ii: Greenhouse gas emissions from transport	AC1i: To contribute towards compliance with legislative air quality limits and target values AC1ii: To facilitate a reduction in greenhouse gas emissions from transport	<ul style="list-style-type: none"> EPA air quality reports (annual) EPA greenhouse gas emissions reports (annual)
	AC2: Percentage of population travelling to work, school or college by public transport or non-mechanical means	AC2: An increase in the percentage of the population travelling to work, school or college by public transport or non-mechanical means	<ul style="list-style-type: none"> CSO population data (every c. 5 years)

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Environmental Component	Selected Indicator(s)	Selected Target(s)	Source(s):
	AC3i: Energy use (including by the transport sector) as a percentage of Total Final Energy Consumption AC3ii: Proportion of energy from renewable sources	AC3i: To facilitate a reduction in energy use (including by the transport sector) as a percentage of Total Final Energy Consumption AC3ii: To facilitate an increase in the proportion of energy used from renewable sources	<ul style="list-style-type: none"> Sustainable Energy Ireland <i>Energy in Ireland</i> reports
Cultural Heritage	CH1: 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 provided for by the Plan	CH1: Protect entries to the Record of Monuments and Places - and the context of these entries within the surrounding landscape where relevant – protected from adverse effects resulting from development provided for by the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Department of Culture, Heritage and the Gaeltacht
	CH2: Percentage of entries to the Record of Protected Structures (including their context) and Architectural Conservation Areas protected from adverse effects resulting from development provided for by the Plan	CH2: Protect entries to the Record of Protected Structures (including their context) and Architectural Conservation Areas from adverse effects resulting from development provided for by the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Department of Culture, Heritage and the Gaeltacht
Landscape	L1 (and PHH2): Disruption to use of and access to amenities including parklands and playing fields	L1 (and PHH2): To avoid and minimise disruption to use of and access to amenities including parklands and playing fields	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Parks Department.
	L2: Number of unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities, resulting from development provided for by the Plan	L2: No unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).

Appendix I Relationship with Legislation and Other Plans and Programmes

This appendix is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
European Level			
SEA Directive (2001/42/EC)	<ul style="list-style-type: none"> Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment. 	<ul style="list-style-type: none"> Carry out an environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive. Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme. Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission. Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects. Inform relevant authorities and stakeholders on the decision to implement the plan or programme. Issue a statement to include requirements detailed in Article 9 of the Directive. Monitor and mitigate significant environmental effects identified by the assessment. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EIA Directive (2011/92/EU as amended by 2014/52/EU)	<ul style="list-style-type: none"> Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment. Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4. 	<ul style="list-style-type: none"> All projects listed in Annex I are considered as having significant effects on the environment and require an EIA. For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III. The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor. Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Habitats Directive (92/43/EEC)	<ul style="list-style-type: none"> Promote the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora. Contribute towards ensuring biodiversity through the 	<ul style="list-style-type: none"> Propose and protect sites of importance to habitats, plant and animal species. Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and

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Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	<p>conservation of natural habitats and of wild fauna and flora.</p> <ul style="list-style-type: none"> • Maintain or restore to favourable conservation status, natural habitats and species of wild fauna and flora of community interest. • Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements. 	<p>the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.</p> <ul style="list-style-type: none"> • Carry out comprehensive assessment of habitat types and species present. • Establish a system of strict protection for the animal species and plant species listed in Annex IV. 	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Birds Directive (2009/147/EC)	<ul style="list-style-type: none"> • Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats. • Protect, manage and control these species and comply with regulations relating to their exploitation. • The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. 	<ul style="list-style-type: none"> • Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1. • Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas). • Ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes. • Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Nitrates Directive (91/676/EC)	<ul style="list-style-type: none"> • Reducing water pollution caused or induced by nitrates from agricultural sources and - preventing further such pollution. 	<p>Ireland's Nitrates Action Programme is designed to prevent pollution of surface waters and ground water from agricultural sources and to protect and improve water quality. Ireland's third NAP came into operation in 2014. Each Member State's NAP must include:</p> <ul style="list-style-type: none"> • a limit on the amount of livestock manure applied to the land each year • set periods when land spreading is prohibited due to risk • set capacity levels for the storage of livestock manure 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Integrated Pollution Prevention Control Directive (2008/1/EC)	<ul style="list-style-type: none"> • The purpose of this Directive is to achieve integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions. 	<p>The IPPC Directive is based on several principles:</p> <ul style="list-style-type: none"> • an integrated approach • best available techniques, • flexibility; and • public participation 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Plant Protection (products) Directive 2009/127/EC	<ul style="list-style-type: none"> • The Directive aims at reducing the risks and impacts of pesticide use on human health and the environment by introducing different targets, tools and measures such as Integrated Pest Management (IPM) or National Action Plans (NAPs). 	<ul style="list-style-type: none"> • The Framework Directive applies to pesticides which are plant protection products. • Regarding pesticide application equipment already in professional use, the Framework Directive introduces requirements for the inspection and maintenance to be carried out on such equipment. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU Renewables Directive (2009/28/EC)	<ul style="list-style-type: none"> The Renewable Energy Directive establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets. All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020. 	<ul style="list-style-type: none"> The Directive promotes cooperation amongst EU countries (and with countries outside the EU) to help them meet their renewable energy targets. The Directive specifies national renewable energy targets for each country, taking into account its starting point and overall potential for renewables. EU countries set out how they plan to meet these targets and the general course of their renewable energy policy in national renewable energy action plans. Progress towards national targets is measured every two years when EU countries publish national renewable energy progress reports. 	<p>regulatory framework for environmental protection and management.</p> <p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Indirect Land Use Change Directive (2012/0288(COD))	<ul style="list-style-type: none"> Article 3(4) of Directive 2009/28/EC of the European Parliament and of the Council (3) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10 % of their final energy consumption. The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor. Other methods available to meet the target are the reduction of energy consumption, which is imperative because a mandatory percentage target for energy from renewable sources is likely to become increasingly difficult to achieve sustainably if overall demand for energy for transport continues to rise, and the use of electricity from renewable energy sources. 	<ul style="list-style-type: none"> Limit the contribution that conventional biofuels (with a risk of ILUC emissions) make towards attainment of the targets in the Renewable Energy Directive; Improve the greenhouse gas performance of biofuel production processes (reducing associated emissions) by raising the greenhouse gas saving threshold for new installations subject to protecting installations already in operation on 1st July 2014; Encourage a greater market penetration of advanced (low-ILUC) biofuels by allowing such fuels to contribute more to the targets in the Renewable Energy Directive than conventional biofuels; Improve the reporting of greenhouse gas emissions by obliging Member States and fuel suppliers to report the estimated indirect land-use change emissions of biofuels. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Alternative Fuels Infrastructure Directive (2014/94/EU)	<ul style="list-style-type: none"> This Directive establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in order to minimise dependence on oil and to mitigate the environmental impact of transport. 	<ul style="list-style-type: none"> This Directive sets out minimum requirements for the building-up of alternative fuels infrastructure, including recharging points for electric vehicles and refuelling points for natural gas (LNG and CNG) and hydrogen, to be implemented by means of Member States' national policy frameworks, as well as common technical specifications for such recharging and refuelling points, and user information requirements. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Energy Efficiency Directive (2012/27/EU)	<ul style="list-style-type: none"> Establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain, from production to final consumption. 	<ul style="list-style-type: none"> Energy distributors or retail energy sales companies have to achieve 1.5% energy savings per year through the implementation of energy efficiency measures EU countries can opt to achieve the same level of savings through other means, such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs The public sector in EU countries should purchase energy 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for</p>

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Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		efficient buildings, products and services <ul style="list-style-type: none"> • Every year, governments in EU countries must carry out energy efficient renovations on at least 3% (by floor area) of the buildings they own and occupy • Energy consumers should be empowered to better manage consumption. This includes easy and free access to data on consumption through individual metering • National incentives for SMEs to undergo energy audits • Large companies will make audits of their energy consumption to help them identify ways to reduce it • Monitoring efficiency levels in new energy generation capacities. 	environmental protection and management.
EU Seveso Directive (2012/18/EU)	<ul style="list-style-type: none"> • This Directive lays down rules for the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and effective manner. 	The Seveso Directive is well integrated with other EU policies, thus avoiding double regulation or other administrative burden. This includes the following related policy areas: <ul style="list-style-type: none"> • Classification, labelling and packaging of chemicals; • The Union's Civil Protection Mechanism; • The Security Union Agenda including CBRN-E and Protection of critical infrastructure; • Policy on environmental liability and on the protection of the environment through criminal law; • Safety of offshore oil and gas operations. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Union Biodiversity Strategy to 2020	<ul style="list-style-type: none"> • Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy. • Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible. 	<ul style="list-style-type: none"> • Outlines six targets and twenty actions to aid European Union in halting the loss to biodiversity and eco-system services. • The six targets cover: <ul style="list-style-type: none"> ○ Full implementation of EU nature legislation to protect biodiversity ○ Maintaining, enhancing and protecting for ecosystems, and green infrastructure ○ Ensuring sustainable agriculture, and forestry ○ Sustainable management of fish stocks ○ Reducing invasive alien species ○ Addressing the global need to contribute towards averting global biodiversity loss 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Green Infrastructure Strategy	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	<ul style="list-style-type: none"> • Promoting GI in the main EU policy areas. • Supporting EU-level GI projects. • Improving access to finance for GI projects. • Improving information and promoting innovation. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris	The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions. The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements	<ul style="list-style-type: none"> • The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II). • EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Agreement)	<p>of an EU strategy to implement the Kyoto Protocol.</p> <p>At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.</p>	<ul style="list-style-type: none"> Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system. 	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU 2020 Climate and Energy Package	<ul style="list-style-type: none"> Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020. Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels. Aims to raise the share of EU energy consumption produced from renewable resources to 20%. Achieve a 20% improvement in the EU's energy efficiency. 	<p>Four pieces of complimentary legislation:</p> <ul style="list-style-type: none"> Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps. Member States have agreed national targets for non-EU ETS emissions from countries outside the EU. Meet the national renewable energy targets of 16% for Ireland by 2020. Preparing a legal framework for technologies in carbon capture and storage. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU 2030 Framework for Climate and Energy	<ul style="list-style-type: none"> A 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030 that has been agreed by European countries. Targets include a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption and at least 27% energy savings compared with the business-as-usual scenario. 	<p>To meet the targets, the European Commission has proposed the following policies for 2030:</p> <ul style="list-style-type: none"> A reformed EU emissions trading scheme (ETS). New indicators for the competitiveness and security of the energy system, such as price differences with major trading partners, diversification of supply, and interconnection capacity between EU countries. First ideas for a new governance system based on national plans for competitive, secure, and sustainable energy. These plans will follow a common EU approach. They will ensure stronger investor certainty, greater transparency, enhanced policy coherence and improved coordination across the EU. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive)</p> <p>Fourth Daughter Directive (2004/107/EC)</p>	<ul style="list-style-type: none"> The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive). Sets new air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives. Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values. Allows the possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission. The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air. 	<ul style="list-style-type: none"> Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole. Aims to assess the ambient air quality in Member States on the basis of common methods and criteria. Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and community measures. Ensures that such information on ambient air quality is made available to the public. Aims to maintain air quality where it is good and improving it in other cases. Aims to promote increased cooperation between the Member States in reducing air pollution. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Noise Directive (2002/49/EC)	The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.	The Directive requires competent authorities in Member States to: <ul style="list-style-type: none"> • Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels; • Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and • Inform and consult the public about noise exposure, its effects, and the measures considered to address noise. The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Floods Directive (2007/60/EC)	<ul style="list-style-type: none"> • Establishes a framework for the assessment and management of flood risks • Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community 	<ul style="list-style-type: none"> • Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment • Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3. • Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above. • Inform the public and allow the public to participate in planning process. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Framework Directive (2000/60/EC)	<ul style="list-style-type: none"> • Establish a framework for the protection of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats. • Preserve and prevent the deterioration of water status and where necessary improve and maintain "good status" of water bodies. • Promote sustainable water usage. • The Water Framework Directive repealed the following Directives: <ul style="list-style-type: none"> ○ The Drinking Water Abstraction Directive ○ Sampling Drinking Water Directive ○ Exchange of Information on Quality of Surface Freshwater Directive ○ Shellfish Directive ○ Freshwater Fish Directive ○ Groundwater (Dangerous Substances) Directive ○ Dangerous Substances Directive 	<ul style="list-style-type: none"> • Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive. • Achieve "good status" for all waters. • Manage water bodies based on identifying and establishing river basins districts. • Involve the public and streamline legislation. • Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas. • Establish a programme of monitoring for surface water status, groundwater status and protected areas. • Recover costs for water services. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Groundwater Directive (2006/118/EC)	<ul style="list-style-type: none"> • Protect, control and conserve groundwater. • Prevent the deterioration of the status of all bodies of groundwater. • Implements measures to prevent and control groundwater pollution, including criteria for assessing 	<ul style="list-style-type: none"> • Meet minimum groundwater standards listed in Annex 1 of Directive. • Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.	characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II.	bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Drinking Water Directive (98/83/EC)	<ul style="list-style-type: none"> • Improve and maintain the quality of water intended for human consumption. • Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean. 	<ul style="list-style-type: none"> • Set values applicable to water intended for human consumption for the parameters set out in Annex I. • Set values for additional parameters not included in Annex I, where the protection of human health within national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1) (a). • Implement all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5. • Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause. • Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action. • Undertake remedial action to restore the quality of the water where necessary to protect human health. • Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Urban Waste Water Treatment Directive (91/271/EEC)	<ul style="list-style-type: none"> • This Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors. • The objective of the Directive is to protect the environment from the adverse effects of waste water discharges. 	<ul style="list-style-type: none"> • Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment. • Annex II requires the designation of areas sensitive to eutrophication which receive water discharges. • Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU	<ul style="list-style-type: none"> • Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage. 	<ul style="list-style-type: none"> • Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent. • Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		<ul style="list-style-type: none"> Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7. The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive. The competent authority shall be entitled to initiate cost recovery proceedings against the operator. The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met. The Environmental Liability Directive has been amended through a number of Directives that are not of significant relevance to the SEA for the Guidelines. Implementation of the Environmental Liability Directive is contributed towards by a Multi-Annual Work Programme (MAWP) 'Making the Environmental Liability Directive more fit for purpose' that is updated annually to changing developments, growing knowledge and new needs. 	
European Convention on the Protection of the Archaeological Heritage (Valletta 1992)	<ul style="list-style-type: none"> The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study. 	The Valletta Convention makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage. It also constitutes an institutional framework for pan-European co-operation on the archaeological heritage, entailing a systematic exchange of experience and experts among the various States.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)	<ul style="list-style-type: none"> The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented. 	<ul style="list-style-type: none"> The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties. The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co-operation between states and regions. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)	<ul style="list-style-type: none"> Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment 	<ul style="list-style-type: none"> Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights. Recognise individual and collective responsibility towards cultural heritage. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and

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	<p>resulting from the interaction between people and places through time.</p> <ul style="list-style-type: none"> A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations. 	<ul style="list-style-type: none"> Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal. Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society. Greater synergy of competencies among all the public, institutional and private actors concerned. 	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
European Landscape Convention 2000	<ul style="list-style-type: none"> The developments in agriculture, forestry, industrial and mineral production techniques, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and at a more general level, changes in the world economy, have in many cases accelerated the transformation of landscapes. The Convention expresses a concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. It aims to respond to the public's wish to enjoy high quality landscapes. 	<ul style="list-style-type: none"> Promote protection, management and planning of landscapes. Organise European co-operation on landscape issues. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)	<p>It identifies three key objectives:</p> <ul style="list-style-type: none"> to protect, conserve and enhance the Union's natural capital to turn the Union into a resource-efficient, green, and competitive low-carbon economy to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing 	<p>Four so called "enablers" will help Europe deliver on these objectives (goals):</p> <ul style="list-style-type: none"> Better implementation of legislation. Better information by improving the knowledge base. More and wiser investment for environment and climate policy. Full integration of environmental requirements and considerations into other policies. <p>Two additional horizontal priority objectives complete the programme:</p> <ul style="list-style-type: none"> To make the Union's cities more sustainable. To help the Union address international environmental and climate challenges more effectively. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)	<p>The convention has three main aims:</p> <ul style="list-style-type: none"> to conserve wild flora and fauna and their natural habitats to promote cooperation between states to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species 	<p>The Parties</p> <ul style="list-style-type: none"> Recognise the intrinsic value of nature Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control. Look at implementing the Bern Convention in central Eastern Europe and the Caucasus. Take account of the potential impact on natural heritage by other policies. Promote education and information of the public, ensuring the need to conserve species is understood and acted upon. Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co-operation with other organisations. Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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Bali Road Map (2007)	<p>The overall goals of the project are twofold:</p> <ul style="list-style-type: none"> • To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and • To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities. 	<p>The Bali Action Plan is centred on four main building Blocks:</p> <ul style="list-style-type: none"> • mitigation • adaptation • technology • financing 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Cancun Agreements (2010)	<p>Set of decisions taken at the COP 16 Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover:</p> <ul style="list-style-type: none"> • Mitigation • Transparency of actions • Technology • Finance • Adaptation • Forests • Capacity building 	<p>Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Doha Climate Gateway (2012)	<p>Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.</p>	<p>The following actions were committed to by governments at this conference:</p> <ul style="list-style-type: none"> • Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020); • Complete the work under Bali Action Plan and to focus on new completing new targets; • Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt; • Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and • Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Common Agricultural Policy	<ul style="list-style-type: none"> • To improve agricultural productivity, so that consumers have a stable supply of affordable food; and • To ensure that EU farmers can make a reasonable living. 	<ul style="list-style-type: none"> • ensuring viable food production that will contribute to feeding the world's population, which is expected to rise considerably in the future; • Climate change and sustainable management of natural resources; • Looking after the countryside across the EU and keeping the rural economy alive. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU REACH Regulation (EC 1907/2006)	<ul style="list-style-type: none"> • Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. 	<p>The aims are achieved by applying REACH, namely:</p> <ul style="list-style-type: none"> • Registration, • Evaluation, • Authorisation; and • Restriction of chemicals. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and</p>

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		<p>REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.</p>	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Stockholm Convention</p>	<ul style="list-style-type: none"> The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants. 	<ul style="list-style-type: none"> Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex A to the Convention Restrict the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex B to the Convention Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner To target additional POPs Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Ramsar Convention</p>	<p>The Convention’s mission is “the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.</p>	<p>Under the “three pillars” of the Convention, the Contracting Parties commit to:</p> <ul style="list-style-type: none"> Work towards the wise use of all their wetlands; Designate suitable wetlands for the list of Wetlands of International Importance (the “Ramsar List”) and ensure their effective management; Cooperate internationally on transboundary wetlands, shared wetland systems and shared species. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>OSPAR Convention</p>	<p>The mission of OSPAR is to conserve marine ecosystems and safeguard human health in the North-East Atlantic by preventing and eliminating pollution; by protecting the marine environment from the adverse effects of human activities; and by contributing to the sustainable use of the seas.</p>	<p>OSPAR's work is organised under six strategies:</p> <ul style="list-style-type: none"> Biodiversity and Ecosystem Strategy Eutrophication Strategy Hazardous Substances Strategy Offshore Industry Strategy Radioactive Substances Strategy Strategy for the Joint Assessment and Monitoring Programme <p>These six strategies fit together to underpin the ecosystem approach. For each strategy a programme of work is designed and implemented annually.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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<p>European 2020 Strategy for Growth</p>	<p>Europe 2020 sets out a vision of Europe’s social market economy for the 21st century and puts forward three mutually reinforcing priorities:</p> <ul style="list-style-type: none"> • Smart growth: developing an economy based on knowledge and innovation; • Sustainable growth: promoting a more resource efficient, greener and more competitive economy; • Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion. 	<p>In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020:</p> <ol style="list-style-type: none"> 1. 75 % of the population aged 20-64 should be employed; 2. 3% of the EU’s GDP should be invested in R&D; 3. the “20/20/20” climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right); 4. the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree; 5. 20 million less people should be at risk of poverty. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
National Level			
<p>Ireland 2040 - Our Plan, the National Planning Framework, (replacing the National Spatial Strategy 2002-2020) and the National Development Plan (2018-2027)</p>	<ul style="list-style-type: none"> • The National Planning Framework is the Government’s high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between. • The National Development Plan sets out the investment priorities that will underpin the successful implementation of the new National Planning Framework. This will guide national, regional and local planning and investment decisions in Ireland over the next two decades, to cater for an expected population increase of over 1 million people. 	<p>The National Planning Framework published alongside the National Development Plan yields ten National Strategic Outcomes as follows:</p> <ol style="list-style-type: none"> 1. Compact Growth 2. Enhanced Regional Accessibility 3. Strengthened Rural Economies and Communities 4. Sustainable Mobility 5. A Strong Economy, supported by Enterprise, Innovation and Skills 6. High-Quality International Connectivity 7. Enhanced Amenity and Heritage 8. Transition to a Low-Carbon and Climate-Resilient Society 9. Sustainable Management of Water and other Environmental Resources 10. Access to Quality Childcare, Education and Health Services 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Planning, Land Use and Transport Outlook 2040 [in preparation]</p>	<p>The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will:</p> <ol style="list-style-type: none"> 1. Quantify in broad terms the appropriate scale of financial investment in land transport over the long term; 2. Consider how fiscal, environmental and technological developments might impact on this investment; and, 3. Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040. 	<p>In preparation</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Planning and Development Act 2000 (as amended)</p>	<ul style="list-style-type: none"> • The core principal objectives of this Act are to amend the Planning Acts of 2000 – 2009 with specific regard given to supporting economic renewal and sustainable development. 	<ul style="list-style-type: none"> • Development, with certain exceptions, is subject to development control under the Planning Acts and the local authorities grant or refuse planning permission for development, including ones within protected areas. • There are, however, a range of exemptions from the planning system. Use of land for agriculture, peat extraction and afforestation, subject to certain thresholds, is generally exempt from the requirement to obtain planning permission. • Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large scale projects. • Under planning legislation, Development Plans must include mandatory objectives for the conservation of the natural 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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		heritage and for the conservation of European sites and any other sites which may be prescribed. There are also discretionary powers to set objectives for the conservation of a variety of other elements of the natural heritage.	
European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011	<ul style="list-style-type: none"> The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment — commonly known as the Strategic Environmental Assessment (SEA) Directive. 	<ul style="list-style-type: none"> The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning. These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning. Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004). 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)	<ul style="list-style-type: none"> These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds. 	<ul style="list-style-type: none"> They provide, among other things, for: the appointment and functions of authorized officers; identification, classification and other procedures relative to the designation of Community sites. The Regulations have been prepared to address several judgments of the 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. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waste Management Act 1996, as amended	<ul style="list-style-type: none"> To make provision in relation to the prevention, management and control of waste; to give effect to provisions of certain acts adopted by institutions of the European communities in respect of those matters; to amend the Environmental Protection Agency Act, 1992, and to repeal certain enactments and to provide for related matters. 	<ul style="list-style-type: none"> The Waste Management Act contains a number of key legal obligations, including requirements for waste management planning, waste collection and movement, the authorisation of waste facilities, measures to reduce the production of waste and/or promote its recovery. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities Environmental Objectives (FPM) Regulations 2009 (S.I. 296 of 2009)	<ul style="list-style-type: none"> The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels 	<p>Actions:</p> <ul style="list-style-type: none"> Set environmental quality objectives for the habitats of the freshwater pearl mussel populations named in the First Schedule to these Regulations that are within the boundaries of a site notified in a candidate list of European sites, or designated as a Special Area of Conservation, under the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94/1997). Require the production of sub-basin management plans with programmes of measures to achieve these objectives. Set out the duties of public authorities in respect of the sub-basin management plans and programmes of measure 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities Environmental Objectives (Groundwater) Regulations 2010	<ul style="list-style-type: none"> To amend the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) to make further provision to implement 	The substances and threshold values set out in Schedule 5 to S.I. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and	Implementation of the Plan needs to comply with all environmental legislation and align with and

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(S.I 9 of 2010), as amended (S.I. No. 366 of 2016)	Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.	international guidelines on appropriate threshold values. <ul style="list-style-type: none"> Part A of Schedule 6 has been amended to include changes to the rules governing the determination of background levels for the purposes of establishing threshold values for groundwater pollutants and indicators of pollution. Part B of Schedule 6 has been amended to include nitrites and phosphorus (total) / phosphates among the minimum list of pollutants and their indicators which the Environmental Protection Agency (EPA) must consider when establishing threshold values Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established 	cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2014 (S.I. No. 31 of 2014)	<ul style="list-style-type: none"> These Regulations, which give effect to Irelands 3rd Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources 	The Regulations include measures such as: <ul style="list-style-type: none"> Periods when land application of fertilisers is prohibited Limits on the land application of fertilisers Storage requirements for livestock manure; and Monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Climate Action and Low Carbon Development Act 2015	<ul style="list-style-type: none"> An Act to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy. 	When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to: <ul style="list-style-type: none"> The ultimate objective specified in Article 2 of the United Nations Framework Convention on Climate Change done at New York on 9 May 1992 and any mitigation commitment entered into by the European Union in response or otherwise in relation to that objective, The policy of the Government on climate change, Climate justice, Any existing obligation of the State under the law of the European Union or any international agreement referred to in section 2; and The most recent national greenhouse gas emissions inventory and projection of future greenhouse gas emissions, prepared by the Agency. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Sustainable Development Goals National Implementation Plan (2018 – 2020)	<ul style="list-style-type: none"> National Implementation Plan 2018 - 2020 is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 Sustainable Development Goals (SDGs). The Plan provides a 'SDG Matrix' which identifies the 	The Plan identifies four strategic priorities to guide implementation: <ul style="list-style-type: none"> Awareness: raise public awareness of the SDGs; Participation: provide stakeholders opportunities to engage and contribute to follow-up and review processes, and further develop national implementation of the Goals; 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the

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	<p>responsible Government Departments for each of the 169 targets. It also includes a 'SDG Policy Map' indicating the relevant national policies for each of the targets.</p>	<ul style="list-style-type: none"> Support: encourage and support efforts of communities and organisations to contribute towards meeting the SDGs, and foster public participation; and Policy alignment: develop alignment of national policy with the SDGs and identify opportunities for policy coherence. 	<p>achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Infrastructure and Capital Investment Plan (2016-2021)</p>	<ul style="list-style-type: none"> €27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland. 	<ul style="list-style-type: none"> This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all. It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Ireland's National Renewable Energy Action Plan 2010 (Irish Government submission to the European Commission)</p>	<ul style="list-style-type: none"> The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC. 	<ul style="list-style-type: none"> The NREAP sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Strategy for Renewable Energy (2012-2020)</p>	<ul style="list-style-type: none"> The Government's overarching strategic objective is to make renewable energy an increasingly significant component of Ireland's energy supply by 2020, so that at a minimum it will achieve its legally binding 2020 target in the most cost efficient manner for consumers. Of critical importance is the role which the renewable energy sector plays in job creation and economic activity as part of the Government's action plan for jobs. 	<p>This document sets out five strategic goals, reflecting the key dimensions of the renewable energy challenge to 2020:</p> <ul style="list-style-type: none"> Increasing on and offshore wind, Building a sustainable bioenergy sector, Fostering R&D in renewables such as wave & tidal, Growing sustainable transport; and Building out robust and efficient networks. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Climate Mitigation Plan 2017</p>	<ul style="list-style-type: none"> The Plan represents an initial step to set Ireland on a pathway to achieve the deep decarbonisation required in Ireland by mid-century in line with the Government's policy objectives. 	<p>The National Mitigation Plan focuses on the following issues:</p> <ul style="list-style-type: none"> Climate Action Policy Framework Decarbonising Electricity Generation Decarbonising the Built Environment Decarbonising Transport An Approach to Carbon Neutrality for Agriculture, Forest and Land Use Sectors 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Policy Position on Climate Action and Low Carbon Development (2014)</p>	<ul style="list-style-type: none"> The National Policy Position provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050. Statutory authority for the plans is set out in the 	<p>National climate policy in Ireland:</p> <ul style="list-style-type: none"> Recognises the threat of climate change for humanity; Anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future; 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and</p>

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	<p>Climate Action and Low Carbon Development Act 2015.</p>	<ul style="list-style-type: none"> Recognises the challenges and opportunities of the broad transition agenda for society; and Aims, as a fundamental national objective, to achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. 	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Clean Air Strategy [in preparation]</p>	<ul style="list-style-type: none"> The Clean Air Strategy will provide the strategic policy framework necessary to identify and promote integrated measures across government policy that are required to reduce air pollution and promote cleaner air while delivering on wider national objectives. 	<ul style="list-style-type: none"> Having a National Strategy will provide a policy framework by which Ireland can develop the necessary policies and measures to comply with new and emerging EU legislation. The Strategy should also help tackle climate change. The Strategy will consider a wider range of national policies that are relevant to clean air policy such as transport, energy, home heating and agriculture. In any discussion relating to clean air policy, the issue of people’s health is paramount and this will be a strong theme of the Strategy. 	<p>Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Eirgrid’s Grid25 Strategy and associated Grid25 Implementation Programme 2011 -2016</p>	<ul style="list-style-type: none"> Eirgrid’s mission is to develop, maintain and operate a safe, secure, reliable, economical and efficient transmission system for Ireland. <i>“Our vision is of a grid developed to match future needs, so it can safely and reliably carry power all over the country to the major towns and cities and onwards to every home, farm and business where the electricity is consumed and so it can meet the needs of consumers and generators in a sustainable way.”</i> 	<ul style="list-style-type: none"> Grid25, EirGrid’s roadmap to uprate the electricity transmission grid by 2025, continues to be implemented so as to increase the capacity of the grid, to satisfy future demand, and to help Ireland meet its target of 40 per cent of electricity from renewable energy by 2020. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Strategy for the Future Development of National and Regional Greenways (2018)</p>	<ul style="list-style-type: none"> The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenways users. It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years with a consequent significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity. 	<ul style="list-style-type: none"> A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure; Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity; Greenways that provide a substantially segregated off road experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do; and Greenways that provide opportunities for the development of local businesses and economies, and Greenways that are developed with all relevant stakeholders in line with an agreed code of practice. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Water Resources Plan [in preparation]</p>	<ul style="list-style-type: none"> The NWRP is a plan on how to provide a safe, secure and reliable water supply to customers for the next 25 years, without causing adverse impact on the environment. The objective of the NWRP is to set out how we intend to maintain the supply and demand for drinking water over the short, medium and long term whilst minimising the impact on the environment. 	<p>The key objectives of the plan are to:</p> <ul style="list-style-type: none"> Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions Assess the current and future water demand from homes, businesses, farms, and industry Consider the impacts of climate change on Ireland’s water resources 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for</p>

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		<ul style="list-style-type: none"> • Develop a drought plan advising measures to be taken before and during drought events • Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water • Identify, develop and assess options to help meet potential shortfalls in water supplies • Assess the water resources available at a national level including lakes, rivers and groundwater 	environmental protection and management.
National Strategic Plan for Aquaculture Development (2014-2020)	<p>Vision: <i>"Aquaculture in RC is economically, socially and ecologically sustainable, with a developed infrastructure, strong human potentials and an organized market. The consumption of aquaculture products is equal or above EU average, while the technological development of the sector is among the best in the EU."</i></p>	<p>General development and growth objectives of marine and freshwater aquaculture (2014 – 2020):</p> <ul style="list-style-type: none"> • Strengthen the social, business and administrative environment for aquaculture development • Increase in the total production to 24,050 tonnes while adhering to the principles of economic, social and ecological sustainability • Improvement of the perception and increase in the national consumption of aquaculture products 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Construction 2020, A Strategy for a Renewed Construction Sector	<ul style="list-style-type: none"> • Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry. • The Strategy aims both to increase the capacity of the sector to create and maintain jobs, and to deliver a sustainable sector, operating at an appropriate level. It seeks to learn the lessons of the past and to ensure that the right structures and mechanisms are in place so that they are not repeated. 	<p>This Strategy therefore addresses issues including:</p> <ul style="list-style-type: none"> • A strategic approach to the provision of housing, based on real and measured needs, with mechanisms in place to detect and act when things are going wrong; • Continuing improvement of the planning process, striking the right balance between current and future requirements; • The availability of financing for viable and worthwhile projects; • Access to mortgage finance on reasonable and sustainable terms; • Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety; • Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and • Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Sustainable Development: A Strategy for Ireland (1997)	<ul style="list-style-type: none"> • The overall aim of this Strategy is to ensure that economy and society in Ireland can develop to their full potential within a well-protected environment, without compromising the quality of that environment, and with responsibility towards present and future generations and the wider international community. 	<ul style="list-style-type: none"> • The Strategy addresses all areas of Government policy, and of economic and societal activity, which impact on the environment. It seeks to re-orientate policies as necessary to ensure that the strong growth Ireland enjoys and seeks to maintain will be environmentally sustainable. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment (pending preparation)	<ul style="list-style-type: none"> • The National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish principles for protecting and enhancing the landscape while positively 	<p>The objectives of the National Landscape Strategy are to:</p> <ul style="list-style-type: none"> • Implement the European Landscape Convention by integrating landscape into the approach to sustainable development; 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in

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	<p>managing its change. It will provide a high level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions.</p> <ul style="list-style-type: none"> Landscape Strategy Vision: <i>"Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to future generations to promote its sustainable protection, management and planning."</i> 	<ul style="list-style-type: none"> Establish and embed a public process of gathering, sharing and interpreting scientific, technical and cultural information in order to carry out evidence-based identification and description of the character, resources and processes of the landscape; Provide a policy framework, which will put in place measures at national, sectoral - including agriculture, tourism, energy, transport and marine - and local level, together with civil society, to protect, manage and properly plan through high quality design for the sustainable stewardship of the landscape; Ensure that we take advantage of opportunities to implement policies relating to landscape use that are complementary and mutually reinforcing and that conflicting policy objectives are avoided in as far as possible. 	<p>combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Hazardous Waste Management Plan (EPA) 2014-2020</p>	<ul style="list-style-type: none"> This Plan sets out the priorities to be pursued over the next six years and beyond to improve the management of hazardous waste, taking into account the progress made since the previous plan and the waste policy and legislative changes that have occurred since the previous plan was published. <p>Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management Plan. In this context, the following objectives are included as priorities for the revised Plan period:</p> <ul style="list-style-type: none"> To prevent and reduce the generation of hazardous waste by industry and society generally; To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste; To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export; To minimise the environmental, health, social and economic impacts of hazardous waste generation and management. 	<p>The revised Plan makes 27 recommendations under the following topics:</p> <ul style="list-style-type: none"> Prevention Collection Self-sufficiency Regulation Legacy issues North-south cooperation Guidance and awareness Implementation 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines</p>	<ul style="list-style-type: none"> The Department produces a range of guidelines designed to help planning authorities, An Bord Pleanála, developers and the general public and cover a wide range of issues amongst others, architectural heritage, child care facilities, landscape, quarries and residential density. 	<ul style="list-style-type: none"> The Minister issues statutory guidelines under Section 28 of the Act which planning authorities and An Bord Pleanála are obliged to have regard to in the performance of their planning functions. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025	<ul style="list-style-type: none"> The vision is: <i>"A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility."</i> 	<p>These four goals are interlinked, interdependent and mutually supportive:</p> <ul style="list-style-type: none"> Goal 1: Increase the proportion of people who are healthy at all stages of life Goal 2: Reduce health inequalities Goal 3: Protect the public from threats to health and wellbeing Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Tourism Action Plan 2016-2018	<p>Includes a total of 23 actions to be addressed in the period between now and 2018 aimed at securing continued growth in overseas tourism revenue and employment.</p>	<p>23 actions address a range of key issues, including the marketing of Ireland as a visitor destination overseas, visitor access to and within Ireland, the effective presentation of Irish culture, sport, and events to visitors, the role of Local Authorities in supporting tourism, visitor accommodation capacity, and skills development in the tourism sector. The actions are directed at specific tourism stakeholders in the public and private sectors, all of whom are expected to proactively work towards completion of each action within the specified timeframe.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Our Sustainable Future: A framework for Sustainable Development for Ireland 2012	<p>A medium to long term framework for advancing sustainable development and the green economy in Ireland. It identifies spatial planning as a key challenge for sustainable development and sets a series of measures to address these challenges.</p>	<ul style="list-style-type: none"> Sets out the challenges facing us and how we might address them in making sure that quality of life and general wellbeing can be improved and sustained in the decades to come. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)	<ul style="list-style-type: none"> Outlines a policy for how a sustainable travel and transport system can be achieved. Sets out five key goals: <ul style="list-style-type: none"> To reduce overall travel demand. To maximise the efficiency of the transport network. To reduce reliance on fossil fuels. To reduce transport emissions. To improve accessibility to transport. 	<ul style="list-style-type: none"> Others lower level aims include: <ul style="list-style-type: none"> reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies strengthening institutional arrangements to deliver the targets 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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Investing in our Future: A Strategic Framework for Investment in Land Transport (SFILT) – Department of Transport, Tourism And Sport	<ul style="list-style-type: none"> SFILT sets out a set of priorities to guide the allocation of the State’s investment to best develop and manage Ireland’s land transport network over the coming decades. 	<p>The three priorities stated in SFILT are:</p> <ul style="list-style-type: none"> Priority 1: Achieve steady state maintenance (meaning that the maintenance and renewal of the existing transport system is at a sufficient level to maintain the system in an adequate condition); Priority 2: Address urban congestion; and Priority 3: Maximise the value of the road network. <p>In delivering on the steady state maintenance objective set out in SFILT, the Plan includes for:</p> <ul style="list-style-type: none"> Planned replacement programme for the bus fleet operated under Public Service Obligation (“PSO”) contracts; Tram refurbishment and asset renewal in the case of light rail; and To the extent within the Authority’ remit, support for the operation of the existing rail network within the GDA. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)	<ul style="list-style-type: none"> White paper setting out a framework for delivering a sustainable energy future in Ireland. Outlines strategic Goals for: <ul style="list-style-type: none"> Security of Supply Sustainability of Energy Competitiveness of Energy Supply 	<p>The underpinning Strategic Goals are:</p> <ul style="list-style-type: none"> Ensuring that electricity supply consistently meets demand Ensuring the physical security and reliability of gas supplies to Ireland Enhancing the diversity of fuels used for power generation Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks Creating a stable attractive environment for hydrocarbon exploration and production Being prepared for energy supply disruptions 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
National Adaptation Framework (NAF) 2018 and forthcoming regional, local and sectoral adaptation plans (including transport)	<ul style="list-style-type: none"> NAF specifies the national strategy for the application of adaptation measures in different sectors and by local authorities in their administrative areas in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur 	<ul style="list-style-type: none"> Adaptation under this Framework should seek to minimise costs and maximise the opportunities arising from climate change. Adaptation actions range from building adaptive capacity (e.g. increasing awareness, sharing information and targeted training) through to policy and finance based actions. Adaptation actions must be risk based, informed by existing vulnerabilities of our society and systems and an understanding of projected climate change. Adaptation actions taken to increase climate resilience must also consider impacts on other sectors and levels of governance 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Developing Resilience to Climate Change in the Irish Transport Sector (Climate Adaptation Plan for the Transport Sector 2017)	<ul style="list-style-type: none"> The Minister for Transport, Tourism and Sport has prepared a Transport Sectoral Adaptation Plan under the non-statutory National Climate Change Adaptation Framework, 2012. This first Adaptation Plan has examined the impacts of climate change and weather related events, both those impacts that have been observed and those projected for the future, on key transport services and infrastructure within the Irish Transport Sector. 	<ul style="list-style-type: none"> This Strategy supports action by promoting greater co-ordination and information sharing between Member States with the aim of ensuring that adaptation considerations are addressed in all relevant EU policies. It sets out a framework and mechanisms for developing preparedness in respect of current and future climate impacts across the EU. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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Governments White Paper 'Ireland's Transition to a Low Carbon Energy Future' (2015 – 2030)	The White Paper sets out a vision and a framework to guide Irish energy policy between now and 2030. A complete energy policy update informed by the vision to transform Ireland into a low carbon society and economy by 2050.	2030 will represent a significant milestone, meaning: <ul style="list-style-type: none"> • Reduced GHG emissions from the energy sector by between 80% and 95% • Ensuring that secure supplies of competitive and affordable energy remain available to citizens and businesses. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Renewable Energy Action Plan (2010)	<ul style="list-style-type: none"> • Sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive. 	Including Ireland's 16% target of gross final consumption to come from renewables by 2020.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Energy Efficiency Action Plan for Ireland (2009 – 2020)	<ul style="list-style-type: none"> • This is the second National Energy Efficiency Action Plan for Ireland. 	<ul style="list-style-type: none"> • The Plan reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Wildlife Act of 1976 Wildlife (Amendment) Act, 2000	<ul style="list-style-type: none"> • The act provides protection and conservation of wild flora and fauna. 	<ul style="list-style-type: none"> • Provides protection for certain species, their habitats and important ecosystems • Give statutory protection to NHAs • Enhances wildlife species and their habitats • Includes more species for protection 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Actions for Biodiversity (2017-2021) Ireland's National Biodiversity Plan	<ul style="list-style-type: none"> • Sets out strategic objectives, targets and actions to conserve and restore Ireland's biodiversity and to prevent and reduce the loss of biodiversity in Ireland and globally. 	<ul style="list-style-type: none"> • To mainstream biodiversity in the decision-making process across all sectors. • To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity. • To increase awareness and appreciation of biodiversity and ecosystems services. • To conserve and restore biodiversity and ecosystem services in the wider countryside. • To conserve and restore biodiversity and ecosystem 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		<p>services in the marine environment.</p> <ul style="list-style-type: none"> To expand and improve on the management of protected areas and legally protected species. To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services. 	
National Broadband Plan (2012)	<ul style="list-style-type: none"> Sets out the strategy to deliver high speed broadband throughout Ireland. 	<p>The Plan sets out:</p> <ul style="list-style-type: none"> A clear statement of Government policy on the delivery of High Speed Broadband. Specific targets for the delivery and rollout of high speed broadband and the speeds to be delivered. The strategy and interventions that will underpin the successful implementation of these targets. A series of specific complementary measures to promote implementation of Government policy in this area. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)	<ul style="list-style-type: none"> Sets out comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process. Ensures flood risk is a key consideration in preparing land use plans and in the assessment of planning applications. Implementation of the Guidelines is through actions at national, regional, local authority and site-specific levels. Planning authorities and An Bord Pleanála are required to have regard to the Guidelines in carrying out their functions under the Planning Acts. 	<ul style="list-style-type: none"> Avoid inappropriate development in areas at risk of flooding. Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off. Ensure effective management of residual risks for development permitted in floodplains. Avoid unnecessary restriction of national, regional or local economic and social growth. Improve the understanding of flood risk among relevant stakeholders. Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management. <p>The 2009 Flood Risk Management Guidelines were amended by Circular PL 2/2014 (Department of the Environment, Community and Local Government) that provides advice on the use of OPW flood mapping in assessing planning applications and clarifies some advice from the 2009 Guidelines.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003)</p> <p>European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)</p> <p>European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)</p>	<ul style="list-style-type: none"> Transpose the Water Framework Directive into legislation. Outlines the general duty of public authorities in relation to water. Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions. 	<ul style="list-style-type: none"> Implements River basin districts and characterisation of RBDs and River Basin Management Plans. Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs. Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies. Allows the competent authority to recover the cost of damage/destruction of status of water body. Outlines environmental objectives and programme of measures and environmental quality standards for priority substances. Outlines criteria for assessment of groundwater. Outlines environmental objectives to be achieved for surface water bodies. Outlines surface water quality standards. Establishes threshold values for the classification and 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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European Communities Environmental Objectives (Groundwater) Regulations of 2010 (SI 9 of 2010)	<ul style="list-style-type: none"> Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation. 	<p>protection of surface waters against pollution and deterioration in quality.</p> <ul style="list-style-type: none"> Outlines environmental objectives to be achieved for groundwater bodies of groundwater against pollution and deterioration in quality. Sets groundwater quality standards. Outlines threshold values for the classification and protection of groundwater. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Pollution Acts 1977 to 1990	<ul style="list-style-type: none"> The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division. 	<p>The Water Pollution Acts enable local authorities to:</p> <ul style="list-style-type: none"> Prosecute for water pollution offences. Attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters. Issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution. issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices; Seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects. Prepare water quality management plans for any waters in or adjoining their functional areas. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p>Water Services Act 2007</p> <p>Water Services (Amendment) Act 2012</p> <p>Water Services Act (No. 2) 2013</p>	<ul style="list-style-type: none"> Provides the water services infrastructure. Outlines the responsibilities involved in delivering and managing water services. Identifies the authority in charge of provision of water and waste water supply. Irish Water was given the responsibility of the provision of water and wastewater services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 Local Authorities in Ireland. 	<p>Key strategic objectives include:</p> <ul style="list-style-type: none"> Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector. Ensuring the provision of adequate water and sewerage services in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced. Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards Ensuring the provision of the remaining infrastructure needed to provide secondary wastewater treatment, for compliance with the requirements of the EU Urban Wastewater Treatment Directive. Promoting water conservation through Irish Water's Capital Investment Plan, the Rural Water Programme and other measures. Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems. 	Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		<ul style="list-style-type: none"> Ensuring a fair funding model to deliver water services. Overseeing the establishment of an economic regulation function under the CER. 	
Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016)	<ul style="list-style-type: none"> This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term. 	<p>Six strategic objectives as follows:</p> <ul style="list-style-type: none"> Meet Customer Expectations. Ensure a Safe and Reliable Water Supply. Provide Effective Management of Wastewater. Protect and Enhance the Environment. Support Social and Economic Growth. Invest in the Future. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas	<ul style="list-style-type: none"> Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs 	<ul style="list-style-type: none"> Ensure that the implications of management choices for water levels, quantity and quality are fully explored, understood and factored into policy making and land use planning. Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Harvest 2020	<ul style="list-style-type: none"> Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas. 	<ul style="list-style-type: none"> Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Agri-vision 2015 Action Plan	Outlines the vision for agricultural industry to improve competitiveness and response to market demand while respecting and enhancing the environment	not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

SEA Environmental Report for the Ballyogan and Environs Local Area Plan 2019-2025

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>Rural Environmental Protection Scheme (REPS)</p> <p>Agri-Environmental Options Scheme (AEOS)</p> <p>Green, Low-Carbon, Agri-environment Scheme (GLAS)</p>	<ul style="list-style-type: none"> • Agri-environmental funding schemes aimed at rural development for the environmental enhancement and protection. • GLAS is the new replacement for REPS and AEOS which are both expiring. 	<ul style="list-style-type: none"> • Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation. • Protect biodiversity, endangered species of flora and fauna and wildlife habitats. • Ensure food is produced with the highest regard to the environment. • Implement nutrient management plans and grassland management plans. • Protect and maintain water bodies, wetlands and cultural heritage. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Rural Development Programme</p>	<ul style="list-style-type: none"> • The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas 	<p>At a more detailed level, the programme also:</p> <ul style="list-style-type: none"> • Supports structural change at farm level including training young farmers and encouraging early retirement, support for restructuring, development and innovation; • Aims to improve the environment, biodiversity and the amenity value of the countryside by support for land management through funds such as Natura 2000 payments etc.; and • Aims to improve quality of life in rural areas and encouraging diversification of economic activity through the implementation of local development strategies such as non-agricultural activities 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Forestry Programme (2014-2020)</p>	<ul style="list-style-type: none"> • Represents Ireland’s proposals for 100% State aid funding for a new Forestry Programme for the period 2014 – 2020. 	<p>Measures include the following:</p> <ul style="list-style-type: none"> • Afforestation and Creation of Woodland • NeighbourWood Scheme • Forest Roads • Reconstitution Scheme • Woodland Improvement Scheme • Native Woodland Conservation Scheme • Knowledge Transfer and Information Actions • Producer Groups • Innovative Forest Technology • Forest Genetic Reproductive Material • Forest Management Plans 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>River Basin Management Plan</p>	<ul style="list-style-type: none"> • River Basin Management Plans set out the measures planned to maintain and improve the status of waters. 	<ul style="list-style-type: none"> • Aim to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive. • Identify and manages water bodies in the RBD. • Establish a programme of measures for monitoring and improving water quality in the RBD. • Involve the public through consultations. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Peatlands Strategy (2015-2025)</p>	<p>This Strategy aims to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.</p>	<p>Objectives of the Strategy:</p> <ul style="list-style-type: none"> • To give direction to Ireland’s approach to peatland management. • To apply to all peatlands, including peat soils. • To ensure that the relevant State authorities and state 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and</p>

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		<p>owned companies that influence such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions.</p> <ul style="list-style-type: none"> To ensure that Ireland's peatlands are sustainably managed so that their benefits can be enjoyed responsibly. To inform appropriate regulatory systems to facilitate good decision making in support of responsible use. To inform the provision of appropriate incentives, financial supports and disincentives where required. To provide a framework for determining and ensuring the most appropriate future use of cutover and cutaway bogs. <p>To ensure that specific actions necessary for the achievement of its objectives are clearly identified and delivered by those involved in or responsible for peatlands management or for decisions affecting their management.</p>	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme</p>	<ul style="list-style-type: none"> The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive. 	<p>CFRAM Studies have been undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Risk and Hazard mapping, including Flood Extent Mapping, was finalised in 2017. The final outputs from the studies are the CFRAM Plans, finalised in 2018. The Plans define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Draft National Bioenergy Plan</p>	<p>The Draft Bioenergy Plan sets out a vision as follows:</p> <ul style="list-style-type: none"> Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner. 	<p>Three high level goals, of equal importance, based on the concept of sustainable development are identified:</p> <ul style="list-style-type: none"> To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs. To increase awareness of the value, opportunities and societal benefits of developing bioenergy. To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Draft Renewable Electricity Policy and Development Framework (DCCAE)</p>	<p>Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2009/28/EC: On the promotion of the use of energy from renewable resources.</p>	<p>Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017- 2030	This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non-infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.	Targets for alternative fuel infrastructure include the following: <ul style="list-style-type: none"> • AFV forecasts • Electricity targets • Natural gas (CNG, LNG) targets • Hydrogen targets • Biofuels targets • LPG targets • Synthetic and paraffinic fuels targets 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Wise 2025 (DAFM)	Food Wise 2025 sets out a ten year plan for the agri-food sector. It underlines the sector's unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow even further.	Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: <ul style="list-style-type: none"> • 85% increase in exports to €19 billion. • 70% increase in value added to €13 billion. • 60% increase in primary production to €10 billion. • The creation of 23,000 additional jobs all along the supply chain from producer level to high end value added product development. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Cycle Network Scoping Study 2010	<ul style="list-style-type: none"> • Outlines objectives and actions aimed at developing a strong cycle network in Ireland • Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed 	<ul style="list-style-type: none"> • Sets a target where 10% of all journeys will be made by bike by 2020 • Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Policy Framework for Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030	<ul style="list-style-type: none"> • This National Policy Framework on Alternative Fuels Infrastructure for Transport represents the first step in communicating our longer term national vision for decarbonising transport by 2050, the cornerstone of which is our ambition that by 2030 all new cars and vans sold in Ireland will be zero-emissions capable. • By 2030 it is envisaged that the movement in Ireland to electrically-fuelled cars and commuter rail will be well underway, with natural gas and biofuels developing as major alternatives in the freight and bus sectors. 	This policy set out to achieve five key goals in transport: <ul style="list-style-type: none"> • Reduce overall travel demand • Maximise the efficiency of the transport network • Reduce reliance on fossil fuels • Reduce transport emissions • Improve accessibility to transport <p>These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.</p>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Regional/ County/ Local Level			
Regional Economic and Spatial Strategies, replacing Regional Planning Guidelines [in preparation]	Regional Planning Guidelines (RPGs) provide long-term strategic planning frameworks and will be replaced by Regional Spatial and Economic Strategies (RSESs). The Regional Spatial and Economic Strategies will provide a long-term regional level strategic planning and economic framework in order to support the implementation of the National Planning Framework.	<ul style="list-style-type: none"> • RPGs gave regional effect to the National Spatial Strategy. • RSESs give regional effect to the National Planning Framework. • Account is being taken in the drafting of RSESs of the proposed spatial plans (i.e. Development Plans) and economic plans (i.e. Local, Economic, Community Plans) of local authorities to ensure that the RSESs are informed by identified local and regional needs. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for

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Greater Dublin Area (GDA) Transport Strategy (2016-2035)	<ul style="list-style-type: none"> This Strategy sets out how transport will be developed across the Greater Dublin Area, covering Dublin, Meath, Wicklow and Kildare. The Vision Statement: <i>"The GDA by 2022 is an economically vibrant, active and sustainable international Gateway Region, with strong connectivity across the GDA Region, nationally and worldwide; a region which fosters communities living in attractive, accessible places well supported by community infrastructure and enjoying high quality leisure facilities; and promotes and protects across the GDA green corridors, active agricultural lands and protected natural areas."</i> Full SEA and Stage 2 AA have been undertaken on this Strategy 	<p>They set out a number of core principles deriving from the strategic vision, which are:</p> <ul style="list-style-type: none"> Dublin as the capital city of Ireland and a major European centre shall grow and progress, competing with other cities in the EU, and serving a wide range of international, national, regional and local needs. The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country. The GDA, through its ports and airport connections will continue to be the most important entry/exit point for the country as a whole, and as a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance. Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form. Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form Development in the Hinterland Area will be focused on the high quality integrated growth and consolidation of development in key identified towns, separated from each other by extensive areas of strategic green belt land devoted to agriculture and similar uses. 	<p>environmental protection and management.</p> <p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Draft Integrated Implementation Plan 2019-2024	<p>The Transport Strategy for the Greater Dublin Area 2016-2035, which established an overall framework for transport investment over the next two decades and was subject to full SEA and Stage 2 AA, is a key policy shaping the six-year Integrated Infrastructure Plan. The priorities in the Integrated Infrastructure Plan align with the objectives and priorities set out in the Transport Strategy, focused on improving public and sustainable transport</p>	<p>The Implementation Plan identifies investment proposals for a number of areas including:</p> <ul style="list-style-type: none"> Bus; Light Rail; Heavy Rai; Integration Measures and Sustainable Transport Investment; Integrated Service Plan; and Integration and Accessibility. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Greater Dublin Area Cycle Network Plan	<ul style="list-style-type: none"> Sets out a ten year cycling strategy for Counties Dublin, Kildare, Meath and Wicklow Plan to increase regions cycle network dramatically The Plan refers to the EuroVelo International Cycle Route Network of the European Cyclists Federation is a network of 15 long distance cycle routes connecting and uniting the whole European continent. Two of these routes are in Ireland including EV2 from Galway through Dublin to London, Berlin, Warsaw and Moscow. 	<p>Aims to identify and determine:</p> <ul style="list-style-type: none"> The Urban Cycle Network at the Primary, Secondary and Feeder level The Inter-Urban Cycle Network linking the relevant sections of the Urban Network including the elements of the National Cycle Network within the Greater Dublin Area including linkages to key transport locations outside of urban areas such as airports and ports The Green Route Network being cycle routes for development of tourist, recreational and leisure purposes. 	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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Water Quality Management Plans	<ul style="list-style-type: none"> Ensure that the quality of waters covered by the plan is maintained. Maintain and improve the quantity and quality of water included in the Plan scope. 	<ul style="list-style-type: none"> Monitoring of water bodies against quality standards. Outlines management programmes for water catchments. Purpose is to maintain and improve the quantity and quality of groundwater. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	<p>Aims:</p> <ul style="list-style-type: none"> To identify and evaluate the features of interest for a site To set clear objectives for the conservation of the features of interest To describe the site and its management To identify issues (both positive and negative) that might influence the site To set out appropriate strategies/management actions to achieve the objectives 	<ul style="list-style-type: none"> Conservation objectives for SACs and SPAs (i.e. sites within the Natura 2000 network) have to be set for the habitats and species for which the sites are selected. These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Groundwater Protection Schemes	<ul style="list-style-type: none"> A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. 	<ul style="list-style-type: none"> A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Local Economic and Community Plans (LECP)	<ul style="list-style-type: none"> The overarching vision for each LECP is: “to promote the well-being and quality of life of citizens and communities” 	<ul style="list-style-type: none"> The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Development Plans, Local Area Plans, Planning Schemes	<ul style="list-style-type: none"> Outlines planning objectives for land use development (including transport objectives). Strategic framework for planning and sustainable development including those set out in National Planning Framework and Regional Economic and Spatial Strategies. Sets out the policies and proposals to guide development in the specific Local Authority area. 	<ul style="list-style-type: none"> Identifies future infrastructure, development and zoning required. Protects and enhances amenities and environment. Guides planning authority in assessing proposals. Aims to guide development in the area and the amount of nature of the planned development. Aims to promote sustainable development. Provide for economic development and protect natural environmental, heritage. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Green Infrastructure Plans/Strategies	<ul style="list-style-type: none"> Promotes the maintenance and improvement of green infrastructure in an area. Aims to protect and enhance biodiversity and habitats. 	not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Biodiversity Action Plans	<ul style="list-style-type: none"> Aims to protect, conserve, enhance and restore biodiversity and ecosystem services across all spectrums. 	<ul style="list-style-type: none"> Outlines the status of biodiversity and identifies species of importance. Outlines objectives and targets to be met to maintain and improve biodiversity. Aims to increase awareness. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Heritage Plans	<ul style="list-style-type: none"> Aims to highlight the importance of heritage at a strategic level. 	<ul style="list-style-type: none"> Manage and promote heritage as well as increase awareness. Aim to conserve and protect heritage. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
County Landscape Character Assessments	<ul style="list-style-type: none"> Characterises the geographical dimension of the landscape. 	<ul style="list-style-type: none"> Identifies the quality, value, sensitivity and capacity of the landscape area. Guides strategies and guidelines for the future development of the landscape. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Freshwater Pearl Mussel Sub-Basin Management Plans	<ul style="list-style-type: none"> Identifies the current status of the species and the reason for loss or decline. Identifies measure required to improve or restore current status. 	<ul style="list-style-type: none"> Identifies pressures on Freshwater Pearl Mussels for each of the designated populations in Ireland. Outlines restoration measures required to ensure favourable conservation status. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Local Catchment Flood Risk Management Plans	<ul style="list-style-type: none"> Produced by Local Authorities. Outlines areas local flood risk. Sets out measures to manage and prevent flood risk at a local level. 	not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Shellfish Pollution Reduction Programmes	Aims to improve water quality and ensure the protection or improvement of designated shellfish waters in order to support shellfish life and growth and contribute to the high quality of shellfish products directly edible by man.	<ul style="list-style-type: none"> Identifies key and secondary pressures on water quality in designated shellfish areas. Outlines specific measures to address identified key and secondary pressures on water quality. Addresses the specific pressures acting on water quality in each area. 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Regional Waste Management Plans	These plans (for the Connacht-Ulster, Southern, and Eastern-Midlands regions) give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.	To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Climate Change Action Plans 2019 - 2024	Dublin's four local authorities have joined together to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. While each plan is unique to its functional area, they are unified in their approach to climate change adaptation and mitigation, and their commitment to lead by example in tackling this global issue.	<p>These Plans include actions for: Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management. The actions seek to facilitate:</p> <ul style="list-style-type: none"> A 33% improvement in the Council's energy efficiency by 2020 A 40% reduction in the Council's greenhouse gas emissions by 2030 Make Dublin a climate resilient region, by reducing the impacts of future climate change - related events Actively engage and inform citizens on climate change 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.
Noise Action Plans	These Plan are prepared in accordance with the requirements of the Environmental Noise Regulations 2006. These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive.	<ul style="list-style-type: none"> Inform and consult the public about noise exposure, its effects and the measures which may be considered to address noise problems Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects Reduce noise, where possible, and maintain the environmental acoustic quality where it is good 	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.

SEA ENVIRONMENTAL REPORT

APPENDIX II – NON-TECHNICAL SUMMARY

FOR THE

BALLYOGAN AND ENVIRONS LOCAL AREA PLAN 2019-2025

for: Dún Laoghaire-Rathdown County Council

County Hall
Marine Road
Dún Laoghaire
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by: CAAS Ltd.

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Dublin 7



JULY 2019

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Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report for the Ballyogan and Environs Local Area Plan 2019-2025. 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 Plan.

What is an 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 it needed?

The SEA has been carried out in order to comply with the provisions of the Planning and Development (SEA) Regulations and in order to improve planning and environmental management within Ballyogan and its Environs. The output of the process is an Environmental Report that should be read in conjunction with the Plan.

How does it work?

All of the main environmental issues in the area were assembled and considered by the team who prepared the Plan. This helped them to devise a Plan that protects whatever is sensitive in the environment. It also helped to identify wherever potential conflicts between the Plan 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 Plan?

The Environmental Report contains the following information:

- A description of the environment and the key environmental issues;
- A description and assessment of alternatives for the Plan;
- An assessment of the provisions of the Plan; and,
- Mitigation measures which set out to aid compliance with important environmental protection legislation - e.g. the Water Framework Directive, the Habitats Directive - and which will avoid/reduce the environmental effects of implementing the Plan.

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 Plan.

Section 2 The Plan

2.1 Introduction

Dún Laoghaire-Rathdown County Council made a new Local Area Plan (LAP) for Ballyogan and Environs under Section 20 of the Planning and Development Act 2000 (as amended). The Plan sets out an overall strategy for the proper planning and sustainable development over the years 2019-2025. As part of the process of preparing the Plan, 16 neighbourhoods have been delineated across five quarters (Glencairn, Ballyogan, Kilgobbin, Stepside and Carrickmines).

LAPs are required to be consistent with the policies and objectives of the County Development Plan and its Core Strategy, as well as the Regional Planning Guidelines that apply to the area of the Plan.

The LAP should be read in conjunction with the Dún Laoghaire-Rathdown County Development Plan 2016-2022, which sets out the overarching development strategy for the County. Where any provisions of the LAP conflict with the provisions of the County Development Plan, the provisions of the LAP shall cease to have effect.

2.2 Vision Statement¹

The overarching objective of the Plan is to:

"help the BELAP area to develop as a good quality place to live, work, and visit. It is recognised that the existing communities within the area represent around half the future population, based on the extent of zoned land. The needs of both the existing and future communities of this area will be catered for under this Plan.

The neighbourhoods and quarters within the BELAP area will develop as self-contained places from the perspective of character, services, facilities, and place-making, but will become connected both to one another and to the wider County and Region by a network of new and improved connections, with a focus on sustainable modes of transport.

Historical challenges for the area such as shortcomings and imbalances in retail, community, and recreational facilities will be addressed, while building on the area's strengths such as heritage, sense of place, and access to good quality transport networks.

A major focus of the Plan will be the need to provide new and improved linkages through the BELAP area, with a particular focus on linking residential areas to Neighbourhood Centres, community facilities, schools and the Luas Green Line, as well as providing recreational routes that capitalise on the area's natural heritage.

Providing new and improved ways to cross the M50 for pedestrians and cyclists and for local vehicular traffic will be important, as will providing linkages for sustainable transport modes – such as walking, cycling, and public transport - to the adjacent growth areas of Sandyford Business District and Cherrywood.

There is a focus on the significant remaining areas of zoned residential lands by way of Site Development Frameworks, along with a commitment to providing the supporting infrastructure in tandem with future development.

The BELAP area has a legacy of land uses such as utility, light industrial, landfill, retail warehousing, etc. In some instances, it will be appropriate to support these uses, which serve a function at a wider Regional level. In others, it will be appropriate to support a transition to other land uses that better support the area's role within the County and Region."

¹ Text in this section is taken from the Plan

2.3 Relationship with other relevant Plans and Programmes

The Plan sits within a hierarchy of land use forward planning strategic actions. The Plan must comply with relevant higher-level strategic actions and may, in turn, guide lower level strategic actions. The following sections identify a number of these strategic actions, further details of which are contained in the main Plan and SEA Environmental Report documents. The Plan is at the lower level of the hierarchy in the context of national, regional and county level plans. The preparation of the Plan has also been informed and influenced by various local government, national and international policy documents including (but not limited to) the following:

- **Dún Laoghaire-Rathdown County Development Plan 2016-2022**
The Dún Laoghaire-Rathdown County Development Plan 2016-2022 sets out provisions for the proper planning and sustainable development of Dún Laoghaire-Rathdown over its lifetime and is consistent with the Regional Planning Guidelines.
- **Ireland 2040 - Our Plan, the National Planning Framework, (replacing the National Spatial Strategy 2002-2020) and the National Development Plan (2018-2027)**
The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between.
- **The Sustainable Development Goals National Implementation Plan (2018-2020)**
National Implementation Plan 2018-2020 is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 Sustainable Development Goals.
- **Regional Economic and Spatial Strategies, replacing Regional Planning Guidelines [in preparation]**
Regional Planning Guidelines (RPGs) provide long-term strategic planning frameworks and will be replaced by Regional Spatial and Economic Strategies (RSESs). The Regional Spatial and Economic Strategies will provide a long-term regional level strategic planning and economic framework in order to support the implementation of the National Planning Framework.
- **Greater Dublin Area Transport Strategy (2016-2035)**
This Strategy sets out how transport will be developed across the Greater Dublin Area, covering Dublin, Meath, Wicklow and Kildare.
- **Environmental Protection Objectives**
The Local Area Plan is subject to a number of high-level environmental protection policies and objectives with which it must comply. Examples of Environmental Protection Objectives include the aim of the EU Habitats Directive - which is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States - and the purpose of the Water Framework Directive - which is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which, among other things, prevents deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving a good status.

Section 3 The Environmental Baseline

3.1 Introduction

The summary of the environmental baseline of Ballyogan and its Environs is described in this section. This baseline together with the Strategic Environmental Objectives, which are identified in Section 3.12, is used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Plan and in order to determine appropriate monitoring measures. The environmental baseline is described in line with the legislative requirements encompassing the following components: biodiversity, flora and fauna, population, human health, soil, water, air and climatic factors, material assets, cultural heritage, landscape and the interrelationship between these components.

3.2 Likely Evolution of the Environment in the Absence of the Plan

The Plan includes various provisions that would be likely to improve environmental protection and sustainable development. In the absence of the Plan, the framework for environmental protection and sustainable development would be less comprehensive. The positive effects identified by the assessment (see summary at Section 5) would not occur as a result of the Plan.

The Plan includes various provisions that would have the potential to result in significant adverse environmental effects, if unmitigated. The potential significant adverse effects identified by the assessment (see summary at Section 5) would not occur as a result of the Plan.

3.3 Biodiversity and Flora and Fauna

Key ecological sensitivities comprise:

- Mature trees or stands of trees and hedgerows (such as at Glencairn, to the east of Kilgobbin Road, to the south of Larkfield and at Stepside Golf Course) that have the potential to support bird and bat species; and
- Watercourses and their associated riparian habitats and species (such as trout), including:
 - The Ballyogan Stream and its tributaries that drain most of the Plan area from the Kilgobbin Road to the Carrickmines M50 junction;
 - The Racecourse Stream that flows along the south western boundary of the Ballyogan North neighbourhood area and joins with the Ballyogan Stream to the immediate east of the Plan area to become the Carrickmines River; and
 - The Golf Stream, which forms part of the Plan areas south eastern boundary and joins with the Ballyogan and Racecourse Streams to the immediate east of the Plan area to become the Carrickmines River.

European Sites comprise:

- Special Areas of Conservation² (SACs), including candidate SACs; and
- Special Protection Areas³ (SPAs).

² 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.

³ 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 European Union.

There are 17 European Sites (11 SACs and 6 SPAs) within 15 km of the Plan boundary and none of them are located within or adjacent to the Plan area. These sites⁴ are mapped on Figure 3.1.

Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

There are no NHAs, pNHAs or Areas likely to contain Annex I Habitats occurring inside the Plan boundary. The closest pNHA to the Plan area is at Dingle Glen, less than 1 km to the south east of the Plan area. pNHAs in the vicinity of the Plan area⁵ are mapped on Figure 3.2.

The findings of a **Habitat Mapping Survey**⁶ undertaken for parts of the Council's administrative area were prepared in 2007. This Heritage Council classification scheme used by the survey covers natural, semi-natural and artificial habitats of terrestrial, freshwater and marine environments and of rural and urban areas. Habitats identified by the survey within the Plan area include spoil and bare ground, improved agricultural grassland, mixed broadleaved woodland, improved amenity grassland and recolonising bare ground.

Land cover categories from CORINE mapping that indicate areas likely to contain Annex I Habitats include broad-leaved forest, peat bog, natural grassland, water bodies, coastal lagoons, mixed forests, moors and heaths, intertidal flats, beaches dunes sand, inland marshes, stream courses, estuaries, sparsely vegetated areas, burnt areas, salt marshes, bare rocks, transitional woodland scrub and land principally occupied by agriculture with areas of natural vegetation. No such land cover categories are located within the Plan area.

In response to the requirements of the Water Framework Directive a number of water bodies or parts of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on **Registers of Protected Areas** (RPAs). The groundwater underlying the Plan area is part of the wider groundwater area relating to drinking water sources. The Ballyogan Stream, the Racecourse Stream and the Golf Stream, all contribute to Carrickmines River (to the south of the Plan area), which is included on the RPA for Salmonid species.⁷

Other designations mapped on Figure 3.2 include Nature Reserves⁸ and National Parks⁹. The closest Nature Reserve to the Plan area is at Knocksink, approximately 5 km to the south of the Plan area. The Wicklow National Park is located approximately 5 km to the south of the Plan area.

⁴ Including Baldoyle Bay, Howth Head, North Dublin Bay, South Dublin Bay, Ballyman Glen, Bray Head, Glen of the Downs, Knocksink Wood, Glenasmole Valley, Wicklow Mountains, Rockabill to Dalkey Island, North Bull Island, Baldoyle Bay, South Dublin and River Tolka Estuary, Howth Head Coast and Dalkey Islands.

⁵ Including Liffey Valley, Santry Demense, Baldoyle Bay, Dolphins, Dublin Docks, Howth Head, North Dublin Bay, South Dublin Bay, Ballyman Glen, Bray Head, Glen of the Downs, Kilmacanoge Marsh, Knocksink Wood, Dodder Valley, Ballybetagh Bog, Booterstown Marsh, Dalkey Coastal Zone and Killiney Hill, Dingle Glen, Glenasmole Valley, Loughlinstown Woods, Lugmore Glen, Fitzsimon's Wood, Dargle River Valley, Glencree Valley, Powerscourt Waterfall, Powerscourt Woodland, Great Sugar Loaf, Royal Canal and Grand Canal.

⁶ White Young Green for Dún Laoghaire-Rathdown County Council (2007) *Habitat Mapping Survey*

⁷ The Carrickmines (Glenamuck) / Shanganagh system is a regionally important Salmonid system. The Carrickmines system supports a resident population of Brown Trout and a migratory population of Sea Trout.

⁸ Nature Reserves are areas of importance to wildlife, which is protected under Ministerial order.

⁹ The primary purpose of the National Parks is the conservation of biodiversity and landscape, however they also provide for recreational space for locals and visitors.

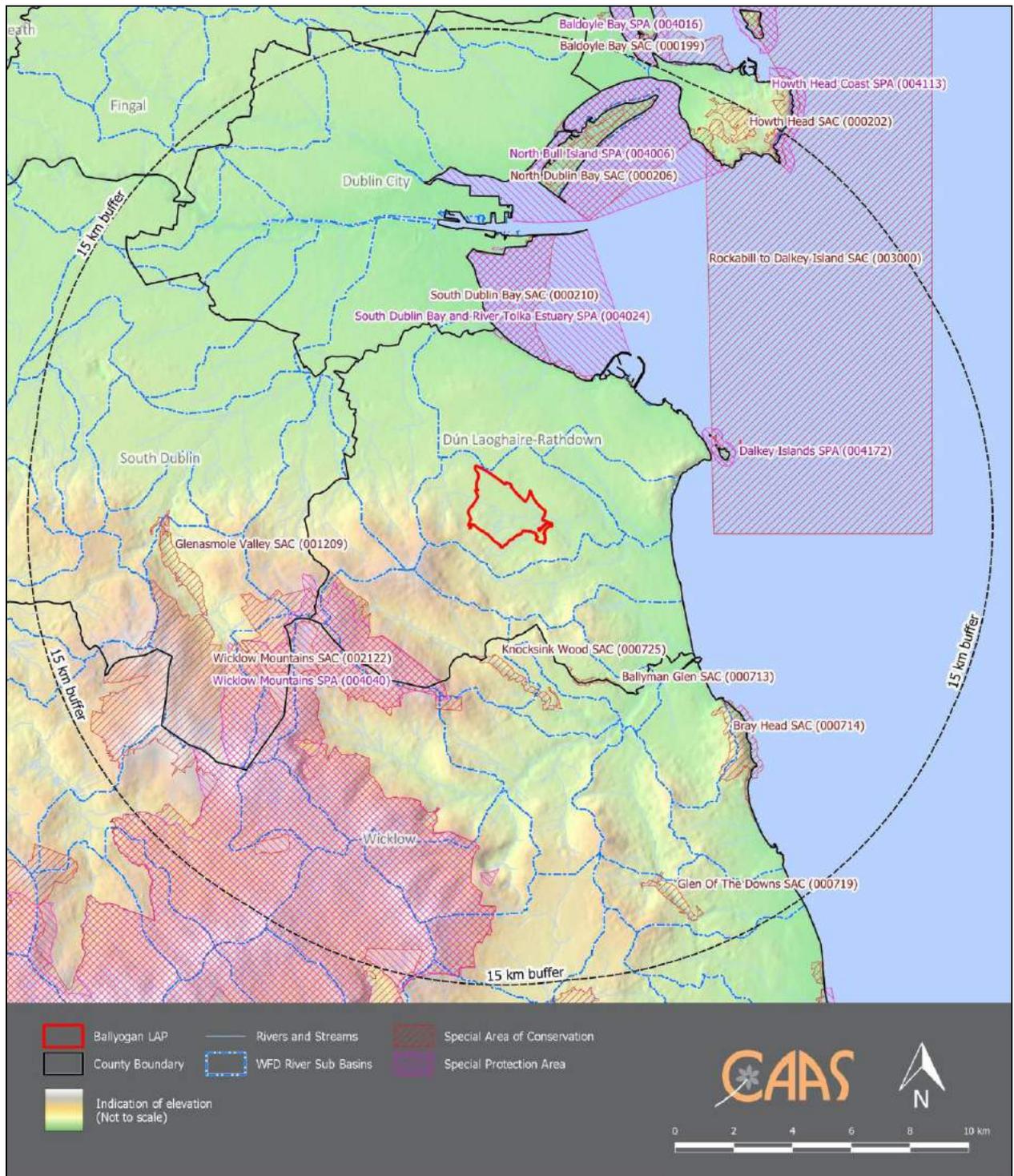


Figure 3.1 European Sites within 15km buffer of Ballyogan and Environs Plan area

3.4 Population and Human Health

Population

In the 2016 Census, the Ballyogan and Environs Plan area had a population of just over 9,500 persons, which equates to 4.4% of Dún Laoghaire-Rathdown's population. The population of this area has been growing rapidly and consistently over the past 30 years, and has a very young profile.

The current spread of population densities across the Plan area varies considerably, with three broad clusters of population, located in the following Neighbourhoods:

- West - Stepside Central and Stepside East;
- East - Old Glenamuck Road; and
- North - Kilgobbin North, through Glencairn South and Mimosa-Levmoss to Ballyogan North.

The highest population density at Neighbourhood level has been achieved at Kilgobbin North.

Capacity for additional population growth, based on availability of zoned lands, indicates a potential increase - from the 2016 (Census) baseline - of 4,300 new homes and 12,040 additional people.

The new population provided for in the Plan 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

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

3.5 Soil

The majority of the Plan area is covered by urban soils that 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. Urban soils have a combination of characteristics that differ from natural soils. These characteristics are due to alterations in both physical and chemical soil properties that cause long-term deviation from the natural state.

Other soils in the Plan area consist of:

- Lithosols¹⁰ in the north and south-western parts of the Plan area;
- Brown earths¹¹ to the north and south-east of the Plan area; and
- Alluvial soils¹² in the central part of the Plan area.

¹⁰ Lithosols are shallow non-calcareous soils, commonly overlying hard rock or skeletal and gravelly material. They tend to be stony soils, or with shattered bedrock and are associated with frequent rock outcrops.

¹¹ Brown earths are well drained mineral soils, associated with high levels of natural fertility.

¹² These are associated with alluvial (clay, silt or sand) river deposits.

The audit of County Geological Sites (CGSs)¹³ in Dún Laoghaire - Rathdown was completed in 2014. There are 12 County Geological Sites in Dún Laoghaire-Rathdown, however none of these sites are located within the Plan area. The closest sites are located approximately 1-1.5 km from the Plan area to the south-west (Three Rock Mountain) and to the south (Ballycorus, Carrickgollogan, The Scalp, Ballybetagh Bog and Glencullen River).

The former Ballyogan Landfill (EPA Licence no. W0015-01) is located in Jamestown Park, in the south-east of the Plan area. The landfill was decommissioned in 2005 and remediation works at the site have been completed.

3.6 Water

Surface Water Drainage

River Basin Districts have been sub-divided into a number of Water Management Units (WMU) or geographical sub-units of a river basin. The entire Plan area is located within the Shanganagh WMU. The surface water from the Plan area drains to three local catchment streams – Ballyogan Stream, Racecourse Stream and Golf Stream. The catchments of Ballyogan Stream and Racecourse Stream are effectively divided along the Ballyogan Road axis while the catchment of Golf Stream covers the southern and eastern extents of the Plan Area. These streams are component parts of the wider Carrickmines/Shanganagh River system and converge in and around the M50 Carrickmines Interchange. Surface water from future development in the Plan area will, for all intents and purposes, drain to these main catchment systems.¹⁴

The Water Framework Directive 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*.

The WFD defines 'overall surface water status' as the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Thus, in order to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.

The ecological status is an expression of the structure and functioning of aquatic ecosystems associated with surface waters. Such waters are classified as of 'good ecological status' when they meet Directive requirements. Good surface water chemical status means that concentrations of pollutants in the water body do not exceed the environmental limit values specified in the Directive.

Surface Water Status

The current ecological and overall status of the Carrickmines River (associated with Shanganagh WMU) is *moderate*. Stretches of the Racecourse, the Ballyogan and the Golf Streams (which join to form the Carrickmines River in the eastern parts of the Plan area) are also identified by the EPA as being of *moderate status*. Subject to exemptions provided for by Article 4 of the WFD, these water bodies would need improvement in order to comply with the objectives of the WFD.

The EPA diffuse model (2008) identified that the Carrickmines River is '*at risk*¹⁵ from *diffuse risk sources*, such as *road wash - total hydrocarbons*, which are having an impact on water status of the

¹³ Sites that are appraised, but which are not selected for NHA designation, are classified as 'County Geological Sites', as recognised in the National Heritage Plan (2002). This enables their integration into county development plans. Nineteen County or Local Authority areas are now complete and the reports are available on www.gsi.ie.

¹⁴ *Ballyogan and Environs Local Area Plan 2019-2025*

¹⁵ The risk that a waterbody will not achieve good ecological or good chemical status/potential at least by 2015. To examine risk the various pressures acting on the waterbody were identified along with any evidence of impact on water status. Depending on the extent of the pressure and its potential for impact, and the amount of information available, the risk to the water body was placed in one of four categories: at risk; probably at risk; probably not at risk; not at risk.

river. The overall WFD objective for the Carrickmines River is *'to restore at least good status objective by 2021¹⁶'*.

Figure 3.3 illustrates the WFD surface water status within and surrounding the Plan area.

Groundwater Status

For each body of groundwater, both the chemical status and the quantitative must be determined. Both have to be classed as either *good* or *poor*. The WFD sets out a series of criteria that must be met for a body to be classed as good chemical and quantitative status.

The WFD status (2010-2015) of all groundwater underlying the Ballyogan and Environs Plan area and is identified as being of *good status*, meeting the objectives of the WFD.

Aquifer Vulnerability

The Geological Survey of Ireland (GSI) rates groundwaters according to both their productivity and vulnerability to pollution. The Plan area is underlain by a poor bedrock aquifer (unproductive except for local zones). Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The aquifer underlying most the Plan area is classified as being of *high vulnerability* and *extreme vulnerability* and *rock at or near surface or Karst* in some parts of the Plan area (Kilgobbin West, Stepside East, Glencairn North, Mimosa-Levmoss, Racecourse South and south-east of Carrickmines).

Flooding

A Strategic Flood Risk Assessment (SFRA) is being undertaken alongside the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Plan, SEA and SFRA has taken place concurrently and the findings of the SFRA have informed both the Plan and the SEA.

The CFRAM¹⁷ study has identified parts of the Plan area that are at risk of flooding including:

- Lands between Kilgobbin West and Kilgobbin North, near Kilgobbin Road;
- Lands between Kilgobbin East and Kilgobbin South, between Phase 1 and the proposed Phase 2 of the Clay Farm lands; and
- The north-eastern corner of The Park Carrickmines, and the area immediately upstream within Ballyogan South.

3.7 Air and Climatic Factors

Greenhouse Gas Emissions

The key issue involving the assessment of the effects of implementing the Plan on climatic factors relates to greenhouse gas emissions arising from transport. Interactions are also present with flooding.

The National Adaptation Framework (Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. Dún Laoghaire-Rathdown County Council has joined together with Dublin's three other local authorities to develop Climate Change

¹⁶ Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

¹⁷ Catchment Flood Risk Assessment and Management

Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. These Plans are scheduled to be adopted in 2019.

The Plan facilitates improvements in sustainable mobility, thereby facilitating reductions in and limiting increases of greenhouse gas emissions. Such emissions would occur otherwise with higher levels of motorised transport and associated traffic.

Ambient Air Quality

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. These pollutants are generated through fuel combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well-being of the areas inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

In order to comply with the directives mentioned above, the EPA measures the levels of a number of atmospheric pollutants. For the purposes of monitoring in Ireland, four zones are defined in the Air Quality Standards Regulations 2002 (SI No. 271 of 2002).

The Plan facilitates improvements in sustainable mobility, thereby facilitating reductions in and limiting increases of emissions to air. Such emissions would occur otherwise with higher levels of motorised transport and associated traffic.

Noise

Noise is unwanted sound. The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing EU policy on noise reduction from source.

In compliance with the Directive and transposing Environmental Noise Regulations (S.I. No. 140 of 2006), Noise Action Plans have been prepared for each local authority area within the country. These action plans address the agglomeration of Dublin and major roads, railways and airports.

As is the case with many areas across County Dublin, the M50 motorway is the dominant noise source within the Plan area. Other sources of noise include the Luas and local road networks. Figure 3.4) indicates which areas within the Plan area are may be subject to elevated noise levels.

Energy Consumption

Travel is a significant source of energy use (42.2% of Total Final Energy Consumption in Ireland in 2015 was taken up by transport, the largest take up of any sector)¹⁸.

The use of alternative fuels, including electricity, forms a significant part of government policy to reduce transport emissions. The Plan facilitates a mode shift away from the private car to public transport, walking and cycling and provisions relating to electric vehicles. This will contribute towards reductions in the consumption of non-renewable energy sources and achievement of legally binding renewable energy targets.

By facilitating the development of lands well-served by public transport (Luas and bus), the Plan would contribute towards increases in consumption of renewable energy sources and reductions in/limits in increases of energy use.

¹⁸ Sustainable Energy Ireland (2016) *Energy in Ireland 1990 – 2015*

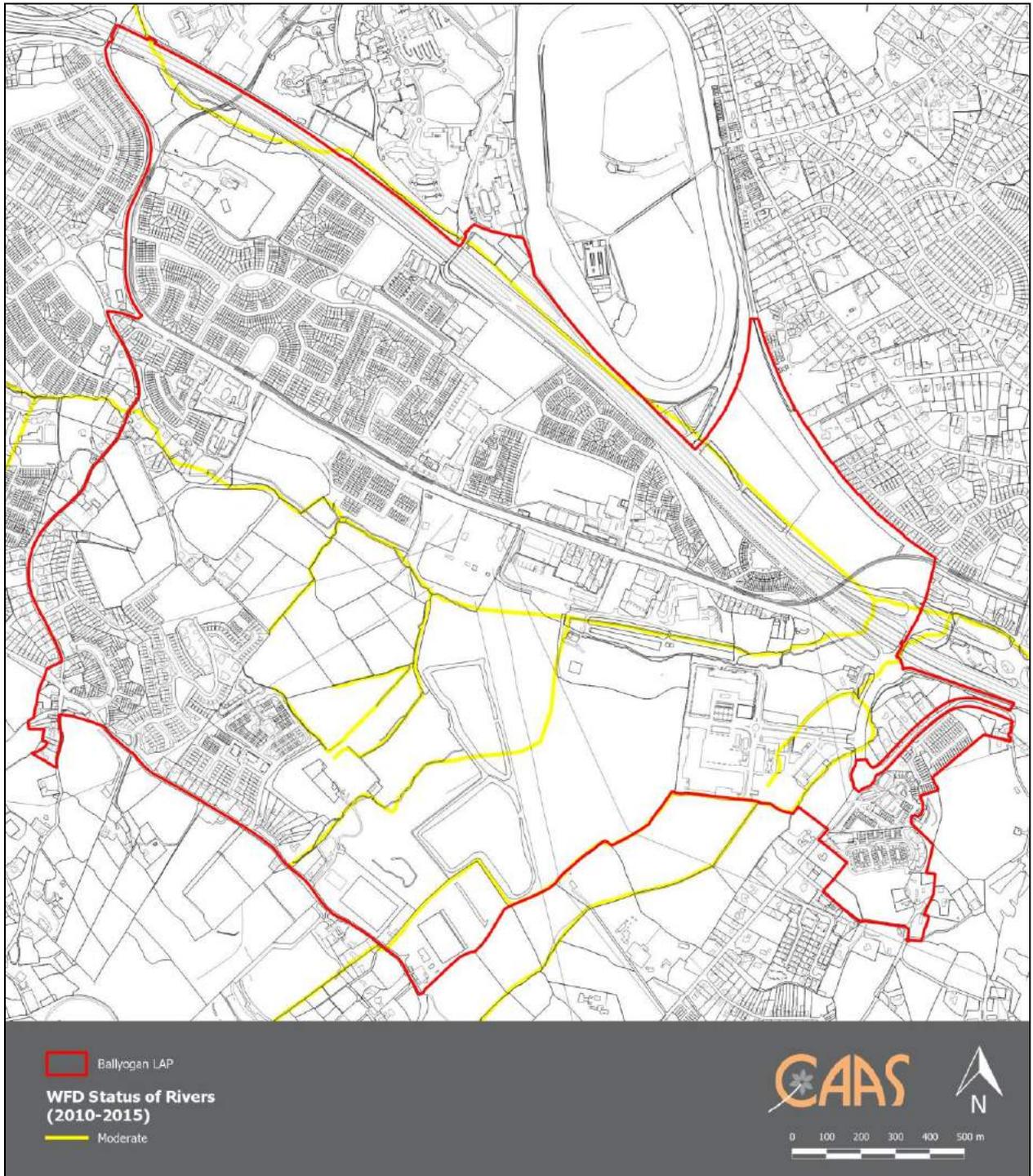


Figure 3.3 Surface Water Status (2010-2015)

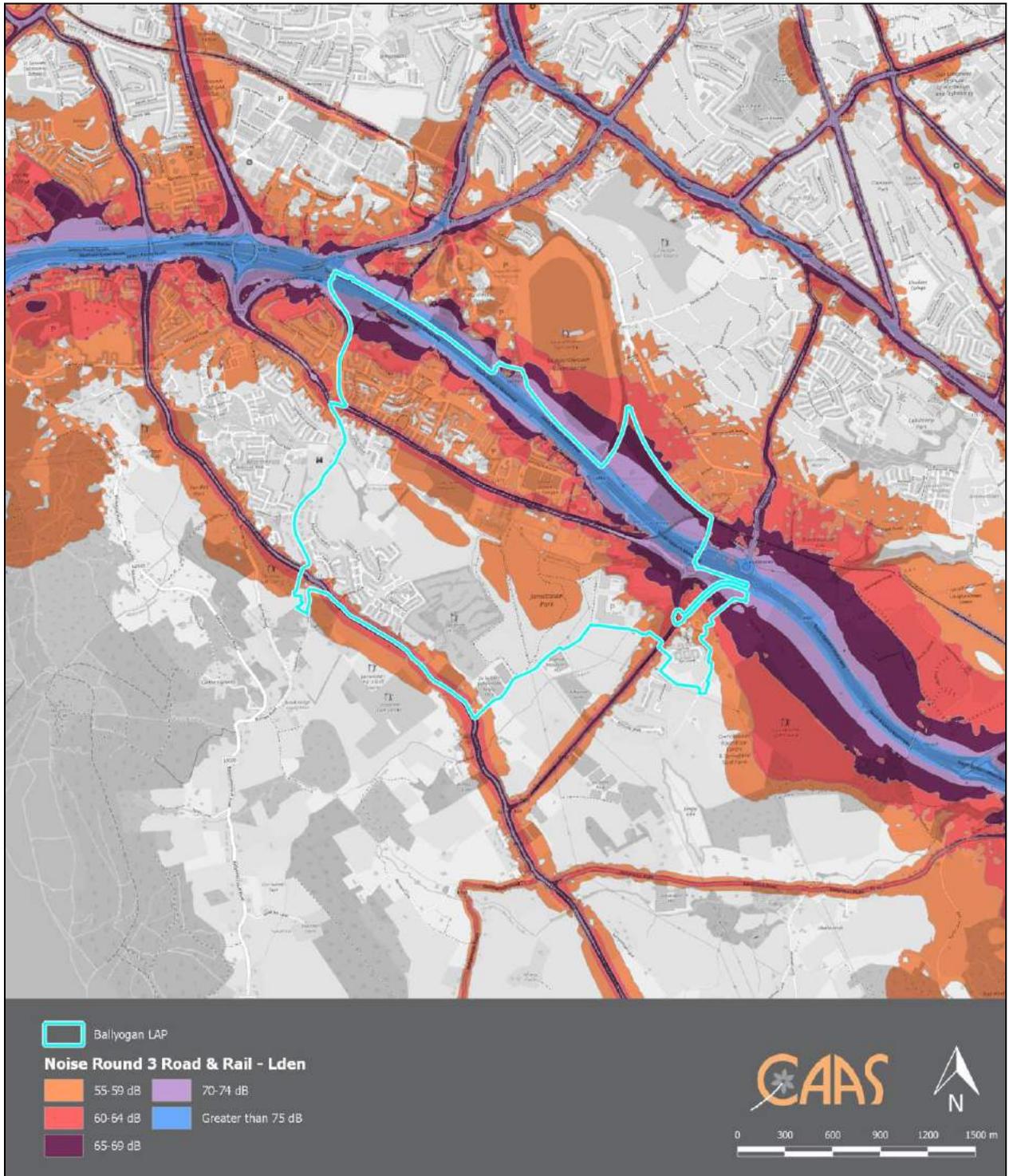


Figure 3.4 Noise Mapping

3.8 Material Assets

Energy Infrastructure

A significant feature of the area is the presence of ESB Networks' Carrickmines 220kV substation in the very centre of the BELAP lands. This substation occupies the western portion of Ballyogan South and effectively borders five other Neighbourhoods - Ballyogan North, Leopardstown Valley, Kilgobbin East, Kilgobbin South and Jamestown.

Waste Water

Waste water disposal is facilitated by the Ballyogan Sewer – laid in 1996 – which passes through the site from northwest to southeast. This sewer flows to the Shanganagh-Bray Waste Water Treatment Plant, which has significant capacity for additional loading.

The Shanganagh-Bray WWTP passed all mandatory Waste Water Treatment Directive related requirements during 2016 and is compliant with the standards set out in the EPA waste water discharge licence and the Urban Waste Water Treatment Regulations.¹⁹

The capacity of the existing foul drainage network is generally adequate to satisfy current and future growth; however additional local network infrastructure would be required to build out undeveloped zoned lands.²⁰

Initial discussions with Irish Water indicate that in order to build out the undeveloped zoned lands within the Plan area, some additional local network infrastructure would be required. However, no major infrastructural interventions would be required to 'unlock' development in this area.

Water Supply

Within the Plan area and surrounds, water supply is via both the Sandyford High Level Scheme and the Sandyford Low Level Water Scheme, but principally by the Sandyford Scheme. A pumping station adjacent to the Sandyford LUAS terminal supplies water to a low level reservoir in Dun Gaoithe, Aikens Village and this reservoir provides water to areas in Sandyford, Ballyogan and Carrickmines below the 110m contour level. An adjacent pumping station in turn supplies water to a high level reservoir near the junction of Burrow Road and Stepside Lane and this reservoir provides water to areas in Sandyford, Stepside and Kiltiernan.

Existing and future populations within the Plan area should continue to have access to adequate high quality clean drinking water. Discussions with Irish Water indicate that the existing water network is generally adequate in order to build out the undeveloped zoned lands within the Plan area. While some additional local network infrastructure may be required, it is not anticipated that any major interventions would be required to enable development in this area.

The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the European Communities (Drinking Water) Regulations, 2000. The most recent EPA Remedial Action List (Q4 of 2018) does not include any water scheme that supplies the Plan area.

Transport

The Plan lands are currently served by four Green Line Luas stops and four bus routes. The National Transport Authority (NTA) are in the process of redesigning and recalibrating the current bus network of Metropolitan Dublin with a focus on simplifying routes, increasing frequencies and optimising the use of interchanging services. The NTA's Transport Strategy for the Greater Dublin Area 2016-2035

¹⁹ EPA (May 2017) *Shanganagh-Bray Wastewater Treatment Works/ Waste water discharge licence review*

²⁰ *Ballyogan and Environs Local Area Plan 2019-2025*

includes a policy to enhance capacity on the Luas Green Line from St. Stephen's Green to Bride's Glen. It is also proposed to extend the Luas Green Line to Bray in the south and Finglas in the north.

Waste Management

The Ballyogan Recycling Park is located within the Plan area at the Ballyogan South neighbourhood. This civic recycling facility is for domestic recycling and disposal. Waste management within the Plan area is guided by the Eastern and Midlands Region Waste Management Plan 2015-2021. The Plan provides a framework for the prevention and management of waste in a sustainable manner in 12 local authority areas, including Dún Laoghaire-Rathdown.

3.9 Cultural Heritage

Archaeological Heritage

Archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts. 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 15 entries to the Record of Monuments and Places within the Ballyogan and Environs, with the greatest concentration of these designations in the north and south-west of the Plan area (as shown on Figure 3.5). These include castles, burial grounds, linear earthworks, enclosures, church sites, crosses and a habitation site.

Architectural Heritage

The term architectural heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act 1999 as meaning all: structures and buildings together with their settings and attendant grounds, fixtures and fittings; groups of structures and buildings; and, sites which are of technical, historical, archaeological, artistic, cultural, scientific, social, or technical interest. 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 five Protected Structures located within Ballyogan and Environs area, including the Court House, Christ Church and St. Joseph's Church (as shown on Figure 3.6). Each of these is located within the western part of the Plan area near the Kilgobbin Road re-affirming the historical significance and settlement pattern in this area.

Architectural Conservation Areas (ACAs). An ACA is a place, area or group of structures or townscape that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or contributes to the appreciation of protected structures, whose character it is an objective to preserve in a development plan. The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA that might alter the character of the structure or the ACA.

An Architectural Conservation Area and various Protected Structures are designated in the adjacent area of Foxrock, to the north east of the Racecourse South neighbourhood area (as shown on Figure 3.6).

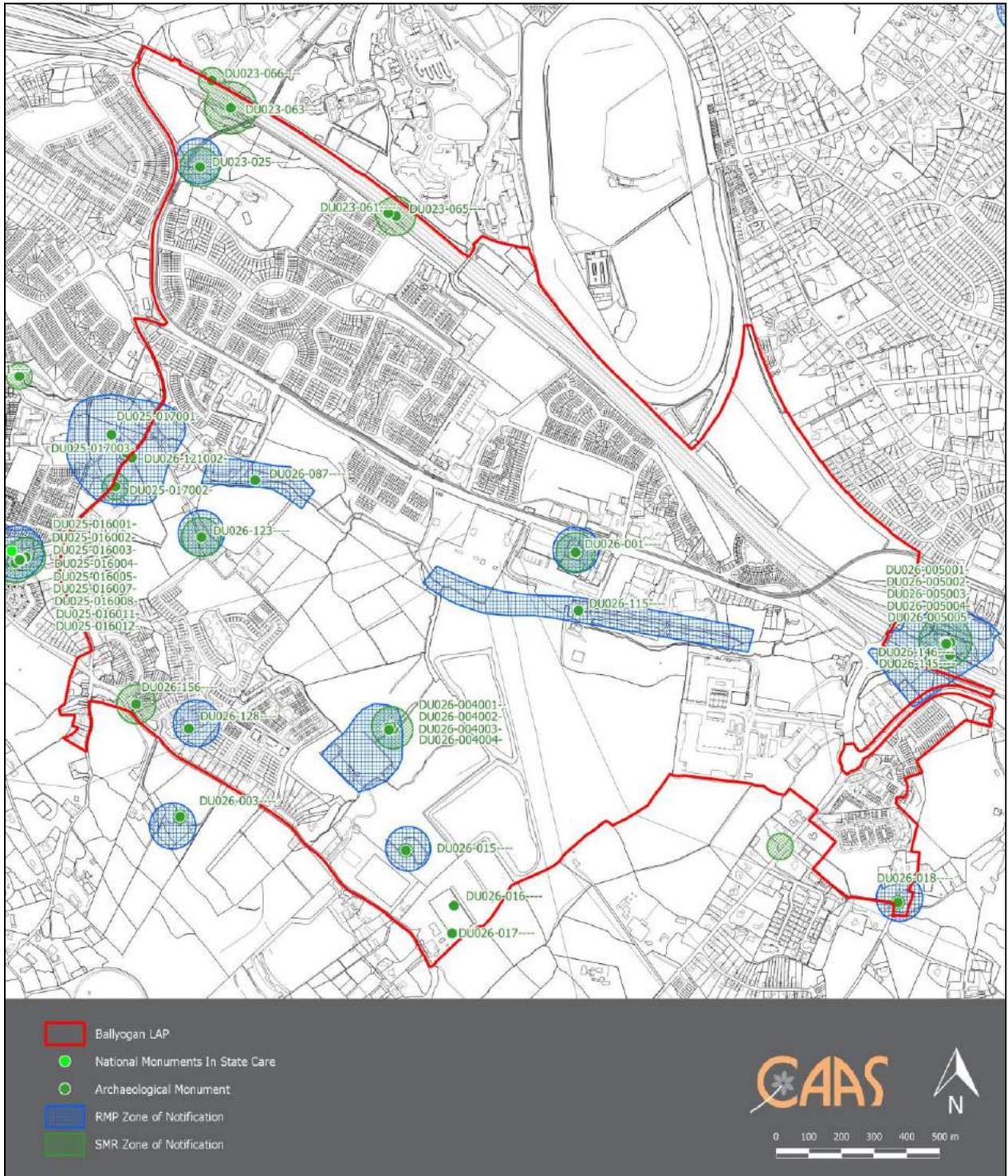


Figure 3.5 Archaeological Heritage

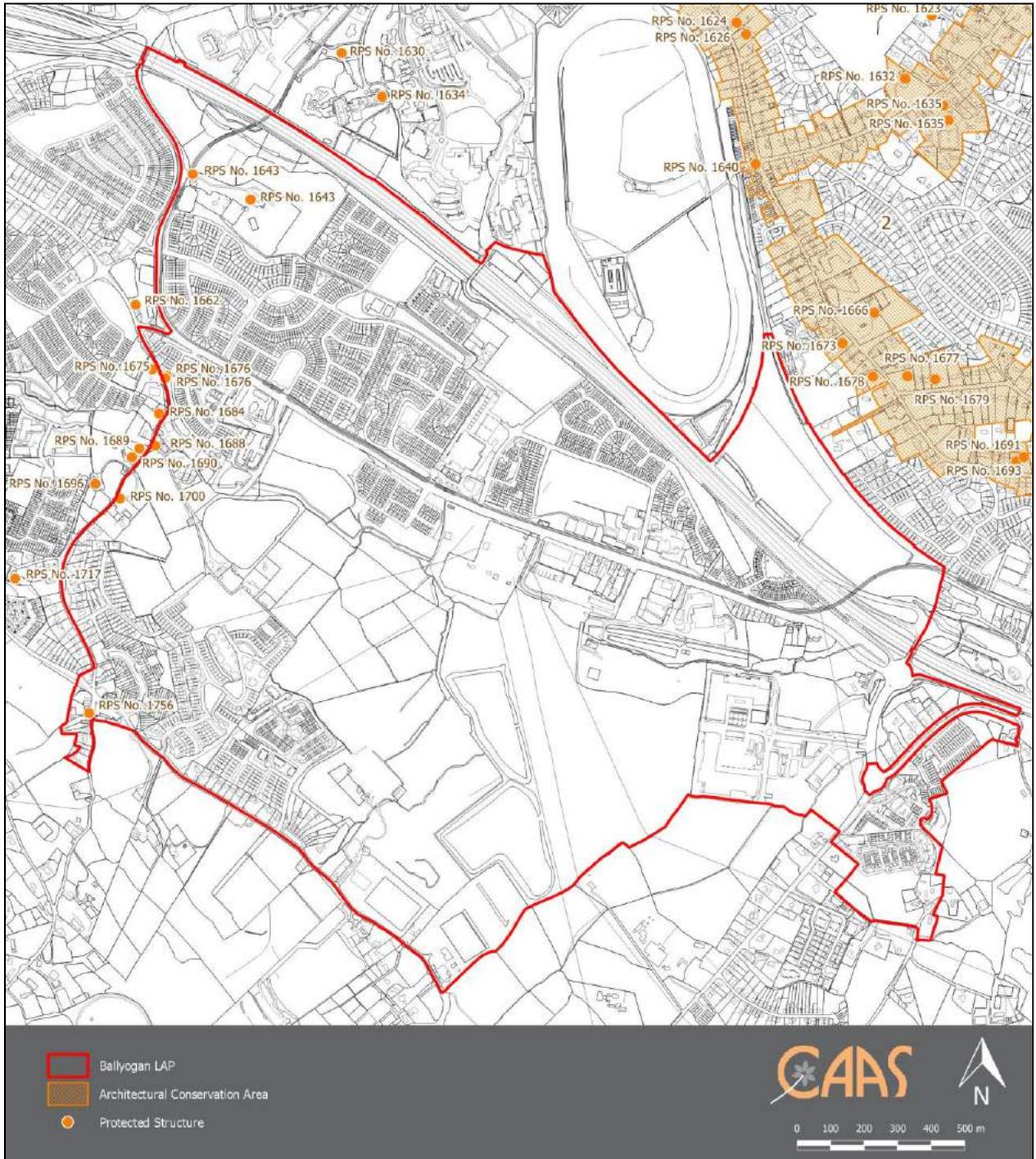


Figure 3.6 Architectural Heritage

3.10 Landscape

Topography

The Plan area is situated at the base of the foothills of the Dublin Mountains, with the land falling from the high ground at Stepside, down to the valley of the Ballyogan Stream. Much of the Plan area is visible from areas outside of the Plan area, including the mountains to the southwest and lower areas to the northwest.

Landscape Character Assessment

The Landscape Character Assessment for the Council's administrative area identifies 14 Landscape Character Areas in the south of the County, outside of the areas that accommodate the highest levels of development. The Ballyogan and Environs Plan area is located partially within the Landscape Character Area of Carrickmines (LCA 13).

Protected Views and Prospects

The County contains many sites, areas and vantage points from which views over areas of great natural beauty, local landmarks, historic landscapes, adjoining Counties and the City of Dublin may be obtained. In addition to scenic views, the County also contains important prospects i.e. prominent landscapes or areas of special amenity value or special interest that are visible from the surrounding area. Specific Views and Prospects for protection have been identified in the Plan and are considered when assessing planning applications. A number of these landscape related designations are located at/to the south of the Plan area.

High Amenity Areas

The County Development Plan zones various High Amenity Areas in the southern portion of the County. These areas consist of landscapes of special value where inappropriate development would contribute to a significant diminution of the landscape setting of the County. There is one such area located along a stretch of the Ballyogan in the Plan area. Areas covered by the High Amenity Zoning include the Glencullen Valley, Glendoo Valley and Kilmashogue Valley. The areas adjacent to the High Amenity areas are also sensitive landscapes as development in these areas may affect directly or indirectly the quality of the High Amenity areas.

3.11 Appropriate Assessment and Flood Risk Assessment

Appropriate Assessment (AA) Screening has been undertaken alongside the preparation and adoption of the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The conclusion of the AA Screening process is that the Plan will not give rise to any effect on the ecological integrity of any European Sites, alone or in combination with other plans or projects.

A Strategic Flood Risk Assessment (SFRA) has also been undertaken alongside the preparation of the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Plan, SEA, AA Screening and SFRA has taken place concurrently and the findings of the AA and SFRA have informed the SEA. Various policies and objectives have been integrated into the Plan through the SEA and SFRA processes.

3.12 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 that are required to be implemented.

The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan 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.

The SEOs are linked to indicators that can facilitate monitoring the environmental effects of the Plan as well identifying targets that the Plan can help work towards.

Table 3.1 Strategic Environmental Objectives

Environmental Component	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites
	To contribute towards compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
	To contribute towards avoidance of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites ²¹ and to ensure compliance with the Wildlife Acts 1976-2018 with regard to the protection of listed species
Population and Human Health	To contribute towards the protection of populations and human health from exposure to incompatible landuses
	To contribute towards protecting use of and access to amenities including parklands and playing fields
Soil	To avoid damage to the hydrogeological and ecological function of the soil resource
Water	To contribute towards the maintenance and improvement, where possible, of the quality and status of surface waters
	To contribute towards maintaining and improving, where possible, the chemical and quantitative status of groundwaters
	To contribute towards compliance with the provisions of the Flood Risk Management Guidelines
Material Assets	To serve new development with adequate and appropriate wastewater treatment
	To serve new development with adequate drinking water that is both wholesome and clean
	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse
	To facilitate the development of lands well-served by public transport (Luas and bus), improve permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth and limiting urban sprawl
Air and Climatic Factors	To contribute towards reductions in travel related emissions (including pollutants, noise and greenhouse gas emissions) to air
	To encourage modal change from car to more sustainable forms of transport
	To facilitate a reduction in energy use (including by the transport sector) and an increase in the proportion of energy from renewable sources
Cultural Heritage	To contribute towards the protection of archaeological heritage (including entries to the Record of Monuments and Places) and/or its context
	To contribute towards the protection of architectural heritage (including entries to the Record of Protected Structures and Architectural Conservation Areas) and its context
Landscape	To contribute towards protecting use of and access to amenities including parklands and playing fields
	To contribute towards avoidance or, where infeasible, minimisation of conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities

²¹ The definition of a 'wildlife site' provided by the Planning and Development Act 2000, as amended, includes Natural Heritage Areas (NHAs) and proposed NHAs.

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) are identified, described and evaluated for their likely significant effects on the environment.

4.2 Limitations in Available Alternatives

The alternatives available for the Local Area Plan (LAP) are significantly limited by the objectives of the existing Dún Laoghaire-Rathdown County Development Plan (CDP) 2016-2022. The LAP is required to be prepared by the CDP (so a 'do-nothing' option is not available). The CDP sets out a number of parameters for the LAP as follows:

- The Core Strategy identifies Stepside-Ballyogan and Carrickmines as two of the eight "Primary Growth Nodes" within the County, which will provide "a significant portion of the supply of residential units" up to the 2022 horizon.
- Specific Local Objective (SLO) 135, as contained in the CDP, requires the preparation of an LAP for Ballyogan and Environs, and is effectively the genesis of the LAP process. The Plan is required to address, in particular, the following:
 - The provision of the second collector Loop Road off the Ballyogan Road;
 - The need to ensure the maintenance of higher densities in close proximity to quality public transport corridors; and
 - Further development of the central Greenway Spine (including addressing issues of permeability and pedestrian and cycle links to the Luas) to the planned Jamestown Park and beyond to the employment and retail areas at The Park, Carrickmines.
- Lands within the LAP area are subject to one of six land use zoning objectives that are provided by the CDP as follow (see also Figure 4.1):
 - A: To protect and/or improve residential amenity;
 - A1: To provide for new residential communities in accordance with approved Local Area Plans;
 - E: To provide for economic development and employment;
 - F: To preserve and provide for open space with ancillary active recreational amenities;
 - NC: To protect, provide for and/or improve mixed-use neighbourhood centre facilities; and
 - G: To protect and improve high amenity areas.
- The CDP, which has been subject to SEA and AA, contains a number of provisions relating to sustainable development and environmental protection and management with which the LAP must comply.

4.3 Available Reasonable Alternatives

Reasonable alternatives are available for Neighbourhoods No. 6: Ballyogan South, No. 7: Racecourse South and No. 15: The Park Carrickmines (see Figure 4.2). These alternatives are identified on Table 4.1.

Table 4.1 Available Reasonable Alternatives

Neighbourhood	Scenario A	Scenario B
No. 6: Ballyogan South	Low density employment, retention of established energy, waste management infrastructure and services	High density employment, facilitating movement of existing energy and waste management infrastructure and services elsewhere
No. 7: Racecourse South	High density residential neighbourhood is brought forward for development over the lifetime of the LAP, consistent with the land use zoning provided for on these lands. There are two Scenario A's: (i): Modulated densities provided for, informed by areas at elevated levels of flood risk and proximity to existing transport and residential development (ii): Uniform density	No new development is brought forward for these lands over the lifetime of the LAP
No. 15: The Park Carrickmines	Focus upon high-density employment on these Economic and Employment zoned lands	Focus upon retail on these Economic and Employment zoned lands

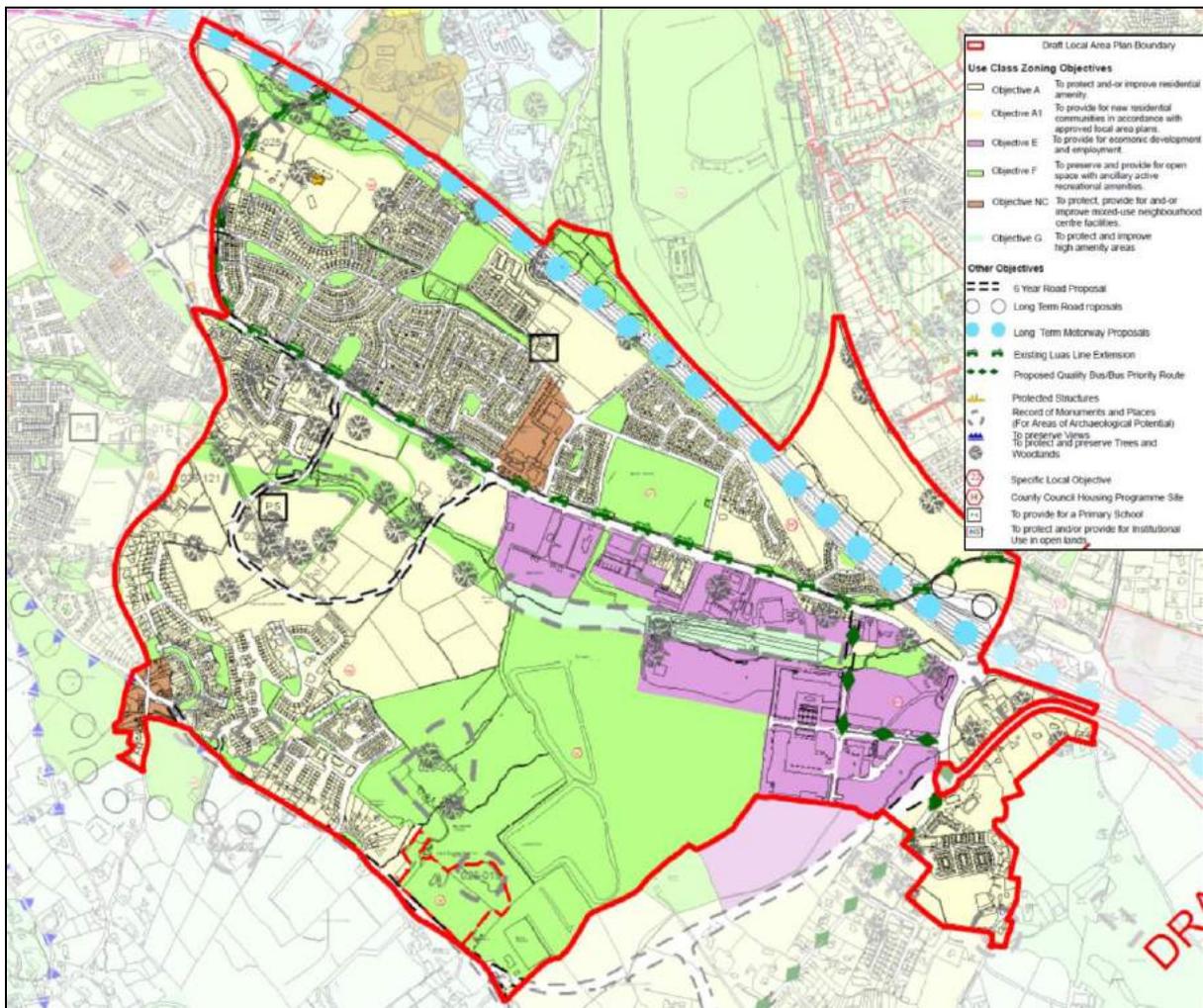


Figure 4.1 Land Use Zoning from the County Development Plan 2016-2022

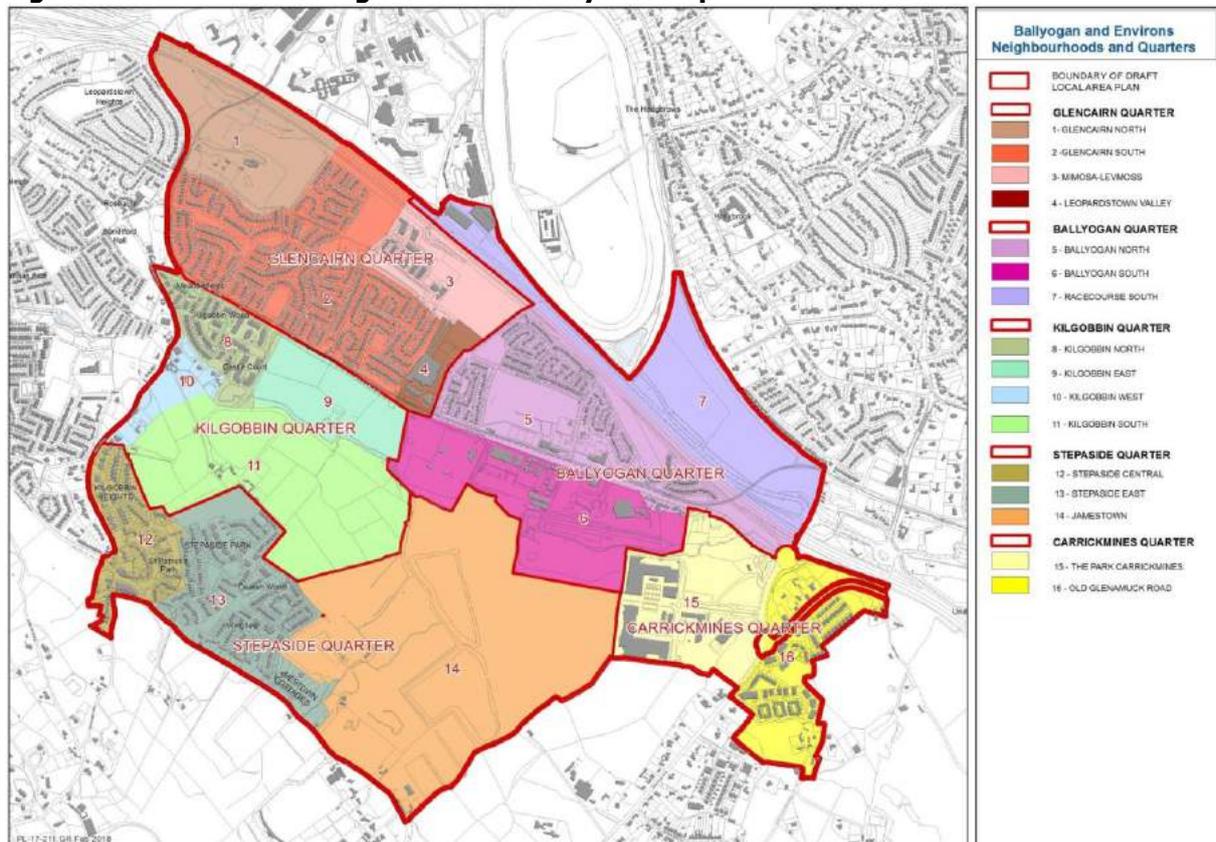


Figure 4.2 Local Area Plan Neighbourhoods and Quarters

4.4 Summary Evaluation of Alternatives

Comparative Evaluation of Alternatives for Ballyogan South (Neighbourhood No. 6)

Scenario A provides for low-density employment and retention of established energy, waste management infrastructure and services while Scenario B provides for high-density employment, facilitating relocation of existing energy and waste management infrastructure and services elsewhere.

The relocation of existing energy and waste management infrastructure elsewhere (facilitated by Scenario B) would present significant planning and environmental challenges. Adverse environmental effects would be unlikely to be fully mitigated. Given the importance of the Carrickmines 220kV substation in the national electricity transmission network, providing a step down from long distance 220kV networks to more local 110kV distribution works, it is uncertain whether this would be achieved. Retaining established energy, waste management infrastructure (provided by Scenario A) would benefit the protection of various environmental components as relocation – and associated probable conflicts – would not occur.

By providing for a greater amount of employment development, Scenario B would help to avoid the need to develop more sensitive, less well-served lands elsewhere in the County and beyond – to a greater degree than would be the case with Scenario A.

By facilitating the development of lands well-served by public transport (Luas and bus), both scenarios would facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use). Such benefits arising from new development within the Plan area would be greater with Scenario B (which provides for high-density employment) than it would be with Scenario A (which provides for low-density employment). Both scenarios would give rise to an amount of journeys that would result in emissions, including those from journeys by car.

Comparative Evaluation of Alternatives for Racecourse South (Neighbourhood No. 7)

The A Scenarios (i and ii) involve bringing a high-density residential neighbourhood forward for development. This neighbourhood would be serviced by good public transport links (bus and Luas).

Under Scenario B, no new development is brought forward for these lands over the lifetime of the LAP.

Scenarios A(i) and A(ii) would both result in improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use). Comparatively, Scenario B would conflict with objectives seeking to facilitate the development of lands well-served by public transport.

The development of well-served lands at this site (both A Scenarios) would reduce the need to develop more sensitive, less well-served lands elsewhere in the County and beyond – this would improve the status of various environmental components. Comparatively, Scenario B would not reduce the need to develop more sensitive, less well-served lands elsewhere for these uses.

Scenario A(ii) involves development of uniform density across the site – this would present potential conflicts with environmental sensitivities at the site and nearby that relate to flood risk, water protection, residential amenity and architectural heritage. Scenario A(i) involves the development of modulated densities that are informed by areas at elevated levels of flood risk and proximity to existing transport and residential development. As a result, Scenario A(i) would present potential conflicts to a lesser degree than would be the case with Scenario A(ii).

Scenario B would not bring forward development for this site and therefore it would contribute towards the protection of environmental sensitivities at the site and nearby.

Comparative Evaluation of Alternatives for The Park Carrickmines (Neighbourhood No. 15)

Scenario A would focus upon high-density employment, while Scenario B would focus upon retain development. These alternatives would have similar environmental effects. Both scenarios would:

- Reduce the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond – this would improve the status of various environmental components; and
- Result in improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes – and associated positive environmental effects (including emissions to air, air quality and energy use).

There is a greater shortage of and demand for new high-density employment development in Dún Laoghaire-Rathdown, in comparison with that related to new retail development. Therefore high-density employment development may have a greater potential to be realised and/or occur sooner.

4.5 The Selected Alternatives

The Plan was developed by the Planning Team taking into account both:

1. Environmental considerations that were identified by the SEA, including those summarised above; and
2. Planning - including social and economic - effects that were also considered by the Council.

The alternatives that were selected for the Plan are follows:

- Scenario A for Ballyogan South (Neighbourhood No. 6);
- Scenario A(i) for Racecourse South (Neighbourhood No. 7); and
- Scenario A for the Park Carrickmines (Neighbourhood No. 15).

By complying with appropriate mitigation measures – these are summarised at Section 6 of this report – potential adverse environmental effects that could arise as a result of implementing these scenarios would be likely to be avoided, reduced or offset.

Section 5 Summary of Effects arising from the Plan

Table 5.1 details the following types of environmental effects arising from the Plan: likely significant positive effects; likely significant adverse effects, if unmitigated; and likely residual adverse effects after mitigation (as summarised in Section 6) is applied.

Environmental impacts which occur, if any, will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Avoidance of conflict with SEOs and the environment is dependent upon compliance with mitigation measures.

In summary:

- There are a number of environmental benefits that are provided for by the parameters set down by the County Development Plan within which the LAP must be prepared.
- There is an established need for development including new residential communities, economic development and employment within Dún Laoghaire-Rathdown and the wider Greater Dublin Area.
- The Local Area Plan lands:
 - Include areas that contain relatively low levels of environmental sensitivities and designations, in comparison to other lands within the County and beyond, including, for example, coastal fringes and more rural upland areas;
 - Are currently served by four Green Line Luas stops and four bus routes. The NTA's Transport Strategy for the Greater Dublin Area 2016-2035 includes a policy to enhance capacity on the Luas Green Line from St. Stephen's Green to Bride's Glen.
 - Include and are close to areas that contain services and employment opportunities.
- By providing for growth and development in this well-serviced area that includes relatively low levels of sensitivities, the Plan would help to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and would contribute towards sustainable development. This would be likely to result in positive environmental effects on environmental components:
 - Biodiversity and flora and fauna;
 - Population and human health;
 - Soil;
 - Water (status of rivers and groundwater);
 - Flood;
 - Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases);
 - Material Assets (facilitating development of well-serviced lands, contributes towards use of existing and planned infrastructure);
 - Cultural Heritage (architectural and archaeological heritage); and
 - Landscape and amenities.

As the Plan provides for land use development and activities, potential conflicts with environmental components would arise. These conflicts will be mitigated to the extent that the only residual adverse effects occurring will be those detailed on Table 5.1 overleaf.

Table 5.1 Overall Findings – Environmental Effects arising from Plan Provisions

Environmental Component	Likely Significant Environmental Effects, in combination with the wider planning framework		Residual Adverse Effects
	Positive Effect, likely to occur	Adverse Effect, if unmitigated	
Biodiversity and flora and fauna	<ul style="list-style-type: none"> Contribution towards the protection of ecology by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development. Contribution towards the protection of biodiversity including listed species, ecological connectivity and non-designated habitats. Contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, such as water and soil. 	<ul style="list-style-type: none"> Loss of/damage to biodiversity in designated sites, 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 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.
Population and human health	<ul style="list-style-type: none"> Contribution towards the protection of human health as a result of protection of environmental vectors, including soil, water and air. Contribution towards protection of human health with respect to the timely provision of water services and the provision of transport infrastructure integrated with land use planning – and associated interactions with sustainable mobility, emissions and energy usage. 	<ul style="list-style-type: none"> Spatially concentrated deterioration in human health if effects arising from environmental vectors such as air and water. 	<ul style="list-style-type: none"> Interactions with other non-significant residual effects arising
Soil	<ul style="list-style-type: none"> Contribution towards the protection of soil and interrelated environmental components by not hindering ongoing monitoring at Ballyogan landfill and continuance of established and additional appropriate uses at the landfill. Contribution towards the protection of soil by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development. 	<ul style="list-style-type: none"> Adverse impacts such as those relating to subsidence or contamination arising from development provided for by the Plan at the historic Ballyogan landfill. Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. 	<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 and from sea level rise/coastal erosion
Water	<ul style="list-style-type: none"> Contribution towards the protection of water by facilitating the development of well-serviced lands with relatively low levels of sensitivities, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the County and beyond and contributing towards sustainable development. Contributions towards the protection of water resources including the status of surface and groundwaters and water based designations. Contribution towards flood risk management. 	<ul style="list-style-type: none"> Adverse impacts upon the status of water bodies and entries to the WFD Register of Protected Areas arising from changes in quality, flow and/or morphology. Increase in the risk of flooding. 	<ul style="list-style-type: none"> Flood related risks remain due to uncertainty with regard to extreme weather events Any loadings to be in compliance with relevant water management provisions

Environmental Component	Likely Significant Environmental Effects, in combination with the wider planning framework		Residual Adverse Effects
	Positive Effect, likely to occur	Adverse Effect, if unmitigated	
Air and climatic factors	<ul style="list-style-type: none"> By facilitating the development of lands well-served by public transport (Luas and bus), improving permeability and providing for extensions to the off road cycle and pedestrian network, the Plan will facilitate improvements in sustainable mobility, including a shift from car to more sustainable and non-motorised transport modes. These improvements would result in the following positive effects: <ul style="list-style-type: none"> Reductions in/limits in increases of greenhouse gas emissions and associated achievement of legally binding greenhouse gas emissions targets; Reductions in/limits in increases of all emissions to air and associated achievement of air quality objectives, thereby contributing towards improvement or air quality and protection of human health; Reductions in/limits in increases of consumption of non-renewable energy sources; and Reductions in/limits in increases of energy use. 	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<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 Plan, including those relating to sustainable mobility.
Material Assets	<ul style="list-style-type: none"> Contribution towards the provision of water services by Irish Water by facilitating the development of well-served lands, thereby helping to avoid the need to develop less well-served lands elsewhere in the County and beyond and contributing towards sustainable development. Contributes towards the use of existing and planned infrastructure including water services, transport, energy and drainage infrastructure. Facilitates the development of lands well-served by public transport (Luas and bus), improves permeability and provide for extensions to the off road cycle and pedestrian network, thereby facilitating consolidation of growth, limiting urban sprawl and helping to avoid the need to develop less well-served lands elsewhere in the County and beyond and contributing towards sustainable development 	<ul style="list-style-type: none"> Failure of development to be accompanied by adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Increases in waste levels. 	<ul style="list-style-type: none"> Residual wastes (these would be disposed of in line with higher level waste management policies) Potential residual losses to built/amenity assets
Cultural Heritage	<ul style="list-style-type: none"> Contribution towards protection of cultural heritage. 	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture. 	<ul style="list-style-type: none"> Potential alteration to the context and setting of designated cultural heritage however these will occur in compliance with legislation. Potential loss of unknown archaeology however this loss will be mitigated
Landscape	<ul style="list-style-type: none"> Contribution towards the protection of landscape by facilitating development within existing settlements. Contribution towards the protection of existing amenities. 	<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"> Residual visual effects (these would be in compliance with landscape designation provisions)

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 Plan. Various environmental sensitivities and issues have been communicated to the Council through the SEA process.

By integrating SEA recommendations into the Plan, the Council has helped to ensure that:

- The potential significant adverse effects of implementing the Plan are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan are maximised.

Mitigation was achieved through the following:

- Early work undertaken by the Council that will contribute towards environmental protection and sustainable development;
- Consideration of alternatives; and
- Integration of individual measures into the Local Area Plan and the existing County Development Plan.

Table 6.1 shows the measures from the existing County Development Plan and the Local Area Plan that will mitigate the potential significant adverse environmental effects of implementing the Plan, if unmitigated.

6.2 Monitoring

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures that will be used in order to monitor the likely significant effects of implementing the Plan. Monitoring can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in Section 3.12 and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) that were identified with regard to the relevant strategic actions.

Table 6.1 shows the indicators and targets that have been selected for monitoring as well as mitigation measures.

The Monitoring Programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

Table 6.1 Summary of Mitigation Measures and Indicators for Monitoring

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Integrated into the Plan	Indicators for Monitoring
All	All	n/a	Site Development Frameworks provide for modulated densities of development that are informed by environmental sensitivities, including proximity to existing transport and residential development	
All	All	n/a	Policy BELAP ENV10 – County Development Plan Provisions That all proposals for development demonstrate compliance with relevant County Development Plan provisions relating to sustainable development and the protection of the environment, including those listed on Table 9.1 of the SEA Environmental Report that accompanies this Plan.	
All	All	n/a	Policy BELAP ENV11 – Construction Management Plans That Construction Management Plans include details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity including bats.	
Biodiversity and Flora and Fauna	Arising from both construction and operation of development: <ul style="list-style-type: none"> Loss of/damage to biodiversity in designated 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 bats. 	<ul style="list-style-type: none"> Policy LHB19: Protection of Natural Heritage and the Environment Policy LHB20: Habitats Directive Policy LHB22: Designated Sites Development Management 8.2.2 (v) Appropriate Assessment Development Management 8.2.9.4 Appropriate Assessment Development Management 8.2.9.6 Light Pollution Development Management 8.2.7.1 Biodiversity Policy EI1: Water Supply & Appropriate Assessment Policy EI2: Wastewater Treatment & Appropriate Assessment Policy EI3: Surface Water Drainage & Appropriate Assessment Policy EI4: Groundwater Protection & Appropriate Assessment Policy LHB23: Non-Designated Areas of Biodiversity Importance Policy LHB 24: County-Wide Ecological Network Policy LHB25 Rivers and Waterways Policy LHB26: Hedgerows Policy LHB29: Invasive Species <p>Also see measures related to soil, water quality, air and material assets.</p>	<p>Policy BELAP ENV12 – Badger Sets That any badger setts within the Plan area be protected insofar as possible through the provisions of adequate buffers between the setts and proposed development or as otherwise agreed by the National Parks and Wildlife Services prior to commencement of development.</p> <p>Policy BELAP ENV13 – Habitats Survey Planning applications for development in areas of environmental sensitivity will be required to provide an updated habitat and protected mammal survey.</p>	<p>B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive</p> <p>B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan</p> <p>B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan</p> <p>B3ii: Number of significant impacts on the protection of listed species</p>
Population and Human Health	<ul style="list-style-type: none"> Spatially concentrated deterioration in human health/interactions if effects upon environmental vectors such as water and air are not mitigated. 	<ul style="list-style-type: none"> Development Management 8.2.9 Environmental Management Policy CC10: Radon Gas Policy EI25: Major Accidents Policy EI20: Air and Noise Pollution <p>Also see measures related to soil, water and material assets.</p>	n/a	<p>PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan, as identified by the Health Service Executive and Environmental Protection Agency</p> <p>PHH2 (and L1): Disruption to use of and access to amenities including parklands and playing fields</p>

Appendix II: Non-Technical Summary

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Integrated into the Plan	Indicators for Monitoring
Soil	<ul style="list-style-type: none"> Adverse impacts such as those relating to subsidence or contamination arising from development provided for by the Plan at the historic Ballyogan landfill. Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. 	<ul style="list-style-type: none"> Policy OSR9: Former Ballyogan Landfill Policy EI19: Rehabilitation of the Former Ballyogan Landfill Policy LHB27: Geological Sites Development Management 8.2.9 Environmental Management <p>Also see measures related to biodiversity, flora and fauna and water and material assets.</p>	n/a	S1: Soil extent and hydraulic connectivity
Water	<ul style="list-style-type: none"> Adverse impacts upon the status and quality of water bodies, including bathing waters, arising from changes in quality, flow and/or morphology. Increase in the risk of flooding. 	<ul style="list-style-type: none"> Policy EI22: Water Pollution Policy E13: Surface Water Drainage & Appropriate Assessment Policy E14: Groundwater Protection & Appropriate Assessment Policy EI6: Integrated Water Management Plans Policy EI7: Water Quality Management Plans Policy EI8: Sustainable Drainage Systems* Policy EI10: Storm Overflows of Sewage to Watercourses Policy CC14: Catchment Flood Risk Assessment and Management (CFRAM) Policy CC15: Flood Risk Management Policy EI8: Sustainable Drainage Systems Policy EI9: Stormwater Impact Assessments Policy LHB25 Rivers and Waterways <p>Also see measures related to soil, biodiversity, flora and fauna and material assets.</p>	<p>Policy BELAP SI7 – SuDS To ensure that Sustainable Drainage Systems (SuDS) is applied to any development in the BELAP area and that site specific solutions to surface water drainage systems are developed which meet the requirements of the Water Framework Directive and associated River Basin Management Plan. SuDS measures may include green roofs, permeable paving, detention basins, water butts, infiltration etc.</p> <p>Policy BELAP SI11 – Flood Risk Assessment To require all proposed developments to carry out a Site-Specific Flood Risk Assessment that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> The Planning System and Flood Risk Management, Guidelines for Planning Authorities (DEHLG / OPW, 2009), as may be revised and/or updated. The prevailing Dún Laoghaire-Rathdown County Development Plan. Any SSFRA shall not be required to carry out a Plan-Making Justification Test, given that this exercise was already carried out at County Development Plan-level. A review of this process was also undertaken as part of the preparation of this Local Area Plan (LAP). The SSFRA shall pay particular emphasis to site specific mitigation measures and any necessary management measures, as per Appendix B4 of the above 2009 National Guidelines. 	<p>W1: Interactions with classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) resulting from development provided for by the Plan</p> <p>W2: Interactions with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC resulting from wind energy development (including associated development) permitted by planning authorities adhering to the Guidelines</p> <p>W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</p>
Material Assets	<ul style="list-style-type: none"> Failure of development to be accompanied by adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Increases in waste levels. 	<ul style="list-style-type: none"> Policy EI5: Water Supply and Wastewater Policy EI11: Water Services Investment Programme Development Management 8.2.9.3 Environmental Impact Assessment Policy EI12: Waste Management Strategy Policy EI13: Waste Plans Policy EI14: Private Waste Companies Policy EI15: Waste Prevention and Reduction Policy EI16: Waste Re-use and Recycling Policy EI17: Refuse Disposal Policy EI18: Hazardous Waste Policy EI19: Rehabilitation of the Former Ballyogan Landfill Policy OSR9: Former Ballyogan Landfill 	<p>Policy BELAP SI1 – Established and Planned Infrastructure and Services: To facilitate the continued use of established and planned infrastructure and services including those relating to transport, drainage, waste management and waste water, drinking water.</p>	<p>M1: Number of new developments granted permission which can be adequately and appropriately served with wastewater treatment over the lifetime of the Plan</p> <p>M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan</p> <p>M3i: Preparation and implementation of construction and environmental management plans</p> <p>M3ii: Total collected and brought household waste</p>

Appendix II: Non-Technical Summary

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Integrated into the Plan	Indicators for Monitoring
Air and Climatic Factors	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<ul style="list-style-type: none"> Provisions of Section 2 "Sustainable Communities Strategy" Policy CC1: National Climate Change Adaptation Framework Policy CC2: Development of National Climate Change Policy and Legislation Policy CC3: Development of National Energy Policy and Legislation Policy CC4: Sustainable Energy Action Plan Policy CC5: Limiting Emissions of Greenhouse Gases 	<p>10.2.2. Plans and Programmes relating to Climate Change</p> <p>In implementing the Plan, the Council will support relevant provisions contained in the National Climate Change Adaptation Framework (2018), the National Mitigation Plan (2017), the National Energy and Climate Plan, the emerging Dún Laoghaire-Rathdown Climate Change Action Plan and any Regional Decarbonisation Plan prepared on foot of commitments included in the emerging Regional Spatial and Economic Strategy for the Eastern and Midland Region.</p> <p>Implementation of the Plan will take into account relevant targets and actions arising from sectoral adaptation plans that will be prepared to comply the requirements of the Climate Action and Low Carbon Development Act 2015, including those seeking to contribute towards the National Transition Objective, to pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050.</p>	<p>M3iii: Packaging recovered (t) by self-complying packagers</p> <p>M4: Extent of developed areas within the catchment of public transport infrastructure and services and walking and cycling infrastructure</p> <p>AC1i: Compliance with Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive and associated legislation</p> <p>AC1ii: Greenhouse gas emissions from transport</p> <p>AC2: Percentage of population travelling to work, school or college by public transport or non-mechanical means</p> <p>AC3i: Energy use (including by the transport sector) as a percentage of Total Final Energy Consumption</p> <p>AC3ii: Proportion of energy from renewable sources</p>
Cultural Heritage	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture. 	<ul style="list-style-type: none"> Policy AH1: Protection of Archaeological Heritage Policy AH2: Protection of Archaeological Material in Situ Policy AH3: Protection of Historic Towns Policy AH4: Carrickmines Castle Site Policy AH5: Historic Burial Grounds Policy AH6: Underwater Archaeology Policy AR1: Record of Protected Structures Policy AR2: Protected Structures Applications and Documentation Policy AR3: Protected Structures and Building Regulations Policy AR4: National Inventory of Architectural Heritage (NIAH) Policy AR5: Buildings of Heritage Interest Policy AR6: Protection of Buildings in Council Ownership Policy AR7: Energy Efficiency of Protected Structures Policy AR8: Nineteenth and Twentieth Century Buildings, Estates and Features Policy AR9: Protection of Historic Street Furniture Policy AR11: Industrial Heritage Policy AR12: Architectural Conservation Areas Policy AR15: Public Realm and Public Utility works within an ACA 	n/a	<p>CH1: 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 provided for by the Plan</p> <p>CH2: Percentage of entries to the Record of Protected Structures (including their context) and Architectural Conservation Areas protected from adverse effects resulting from development provided for by the Plan</p>

Appendix II: Non-Technical Summary

Environmental Component	Potentially Significant Effect, if unmitigated of implementing the LAP	Mitigation already in force – from the County Development Plan	Integrated into the Plan	Indicators for Monitoring
Landscape	<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"> • Policy LHB2: Preservation of Landscape Character Areas • Policy LHB4: High Amenity Zones • Policy LHB5: Historic Landscape Character Areas • Policy LHB6: Views and Prospects • Policy EI21: Light Pollution • Development Management 8.2.9 Environmental Management 	n/a	<p>L1 (and PHH2): Disruption to use of and access to amenities including parklands and playing fields</p> <p>L2: Number of unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities, resulting from development provided for by the Plan</p>

APPROPRIATE ASSESSMENT SCREENING REPORT

FOR THE BALLYOGAN AND ENVIRONS LOCAL AREA PLAN 2019-2025

IN ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 6(3) OF THE EU HABITATS DIRECTIVE

for: Dún Laoghaire-Rathdown County Council

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Section 1 Introduction

1.1 Background

This Appropriate Assessment (AA) Screening Report has been prepared for the Ballyogan and Environs Local Area Plan 2019-2025 [‘the Plan’] in accordance with the requirements of Article 6(3) of Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the “Habitats Directive”).

This report is part of the AA screening process that has been undertaken alongside the preparation of the Plan. It has been considered, alongside other documentation prepared as part of this process.

1.2 Legislative Context

The Habitats Directive provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the “favourable conservation status” of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Council Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable of them. These two designations are collectively known as European Sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European Sites. Article 6(3) establishes the requirement for AA. These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning and Development Act 2000 (as amended).

AA is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site. These sites consist of SACs and SPAs and provide for the protection and long-term survival of Europe’s most valuable and threatened species and habitats.

1.3 Approach

The AA is based on best scientific knowledge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and ‘grey’ literature was conducted. This included a detailed review of the National Parks and Wildlife Website including mapping and available reports for relevant sites and in particular sensitive qualifying interests/special conservation interests described and their conservation objectives. The EPA Envision Map-viewer (www.epa.ie) and available reports were also reviewed, as was the NPWS (2013) publication *“The Status of Protected EU Habitats and Species in Ireland”*.

The ecological desktop study completed for the AA of the LAP comprised the following elements:

- Identification of European Sites within 15 km of the Plan boundary with identification of potential pathways links for specific sites (if relevant) greater than 15km from the Plan boundary;
- Review of the NPWS site synopsis and conservation objectives for European Sites with identification of potential pathways from the Plan area; and
- Examination of available information on protected species.

There are four main stages in the AA process as follow:

Stage One: Screening

The process that identifies the likely impacts upon a European Site of a project or plan, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

The consideration of the impact on the integrity of the European Site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. If adequate mitigation is proposed to ensure no significant adverse impacts on European Sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage Three.

Stage Three: Assessment of Alternative Solutions

The process that examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European Site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. This approach aims to avoid any impacts on European Sites by identifying possible impacts early in the plan-making process and avoiding such impacts. Second, the approach involves the application of mitigation measures, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If potential impacts on European Sites remain, and no further practicable mitigation is possible, the approach requires the consideration of alternative solutions. If no alternative solutions are identified and the Plan is required for imperative reasons of overriding public interest, then compensation measures are required for any remaining adverse effects.

Ecological impact assessment of potential effects on European Sites is conducted following a standard source-pathway-receptor model, where, in order for an effect to be established all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – e.g. pollutant run-off from proposed works;
- Pathway(s) – e.g. groundwater connecting to nearby qualifying wetland habitats and
- Receptor(s) – qualifying aquatic habitats and species of European Sites.

In the interest of this report, receptors are the ecological features that are known to be utilised by the qualifying interests or special conservation interests of a European Site. A source is any identifiable element of the LAP provision that is known to interact with ecological processes. The pathways are any connections or links between the source and the receptor. This report provides information on whether direct, indirect and cumulative adverse effects could arise from the LAP.

The AA Screening exercise has been prepared taking into account legislation including the aforementioned legislation and guidance including the following:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, 2009.*
- *"Commission Notice: Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC", European Commission 2018.*
- *"Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC", European Commission Environment DG, 2002.*
- *"Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC", European Commission, 2000.*

Section 2 Description of the Plan

Dún Laoghaire-Rathdown County Council intends make a new Local Area Plan for Ballyogan and Environs under Section 20 of the Planning and Development Act 2000 (as amended). The Plan will set out an overall strategy for the proper planning and sustainable development over the years 2019-2025. As part of the process of preparing the Plan, 16 neighbourhoods have been delineated across five quarters (Glencairn, Ballyogan, Kilgobbin, Stepside and Carrickmines).

Local Area Plans are required to be consistent with the policies and objectives of the County Development Plan and its Core Strategy, as well as the Regional Planning Guidelines that apply to the area of the Plan. The Plan should be read in conjunction with the Dún Laoghaire-Rathdown County Development Plan 2016-2022 – that Plan sets out the overarching development strategy for the County and has been subject to Stage 2 AA. Where any provisions of the LAP conflict with the provisions of the County Development Plan, the provisions of the LAP shall cease to have effect.

Specific Local Objective 135, as contained in the County Plan, requires the preparation of a Local Area Plan for Ballyogan and Environs, and is effectively the genesis of the Plan process. The Plan is required to address, in particular, the following:

- The provision of the second collector Loop Road off the Ballyogan Road;
- The need to ensure the maintenance of higher densities in close proximity to quality public transport corridors; and
- Further development of the central Greenway Spine (including addressing issues of permeability and pedestrian and cycle links to the Luas) to the planned Jamestown Park and beyond to the employment and retail areas at The Park, Carrickmines.

Chapters 1 to 3 of the Plan (*Introduction, Context and Vision Statement*) provide an overview of the LAP. Chapters 4 to 10 cover the specific subject areas as follows:

- *Transport and Movement*
- *Residential Development*
- *Retail and Employment*
- *Built Heritage and Archaeology*
- *Community Facilities*
- *Leisure and Environment*
- *Sustainable Infrastructure*

Chapter 11 comprises *Specific Local Objectives (SLOs)* while Chapter 12 comprises two *Site Development Frameworks (SDFs)* that provide a more in-depth suite of policies for the two largest tracts of undeveloped zoned land within the LAP area, at Racecourse South and Kilgobbin.

Appendices include the Pre-Draft Public Consultation Report, a series of Neighbourhood Profiles, this SEA Environmental Report, an Appropriate Assessment Screening [this assessment] and a Strategic Flood Risk Assessment.

The Plan sits within a hierarchy of strategic actions such as plans and programmes and is subject to a number of high-level environmental protection policies and objectives with which it must comply. The Plan must comply with relevant higher-level strategic actions and may, in turn, guide lower level strategic actions.

Section 3 Screening for Appropriate Assessment

3.1 Overview

This stage of the process identifies any potential significant affects to European Sites from the Plan, either alone or in combination with other projects or plans.

An important element of the AA process is the identification of the “conservation objectives”, “Qualifying Interests” (QIs) and/ or “Special Conservation Interests” (SCIs) of European Sites requiring assessment. QIs are the habitat features and species listed in Annexes I and II of the Habitats Directive for which each European Site has been designated and afforded protection. SCIs are wetland habitats and bird species listed within Annexes I and II of the Birds Directive. It is also vital that the threats to the ecological / environmental conditions that are required to support QIs and SCIs are considered as part of the assessment.

The following NPWS Generic Conservation Objectives have been considered in the screening:

- For SACs - to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
- For SPAs - to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

Where available, Site-Specific Conservation Objectives (SSCOs) designed to define favourable conservation status for a particular habitat¹ or species² at that site have been considered.

3.2 Identification of Relevant European Sites

The Department of the Environment (2009) Guidance on AA recommends a 15 km buffer zone to be considered. A review of all sites within this zone has allowed a determination to be made that in the absence of significant hydrological links the characteristics of the LAP will not impose effects beyond the 15 km buffer. Details of European Sites that occur within 15 km of the Plan area are listed on Table 3.1. These are also illustrated on Figure 3.1 below. European Sites and EPA Rivers and Catchments are mapped on Figure 3.2. Conservation objectives that have been considered by the assessment are included in the following NPWS documents:

- (2018) Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.
- (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1.
- (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1.
- (2018) Conservation objectives for Ballyman Glen SAC [000713]. Generic Version 6.0.
- (2018) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 6.0.
- (2018) Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 6.0.
- (2017) Conservation Objectives: Bray Head SAC 000714. Version 1.
- (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1.
- (2018) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 6.0.
- (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1.
- (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1.
- (2018) Conservation objectives for Glen of the Downs SAC [000719]. Generic Version 6.0.
- (2018) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 6.0.
- (2016) Conservation Objectives: Howth Head SAC 000202. Version 1.
- (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0.
- (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.
- (2018) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 6.0.

¹ Favourable conservation status of a habitat is achieved when: its natural range, and area it covers within that range, are stable or increasing; the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and the conservation status of its typical species is favourable.

² The favourable conservation status of a species is achieved when: population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

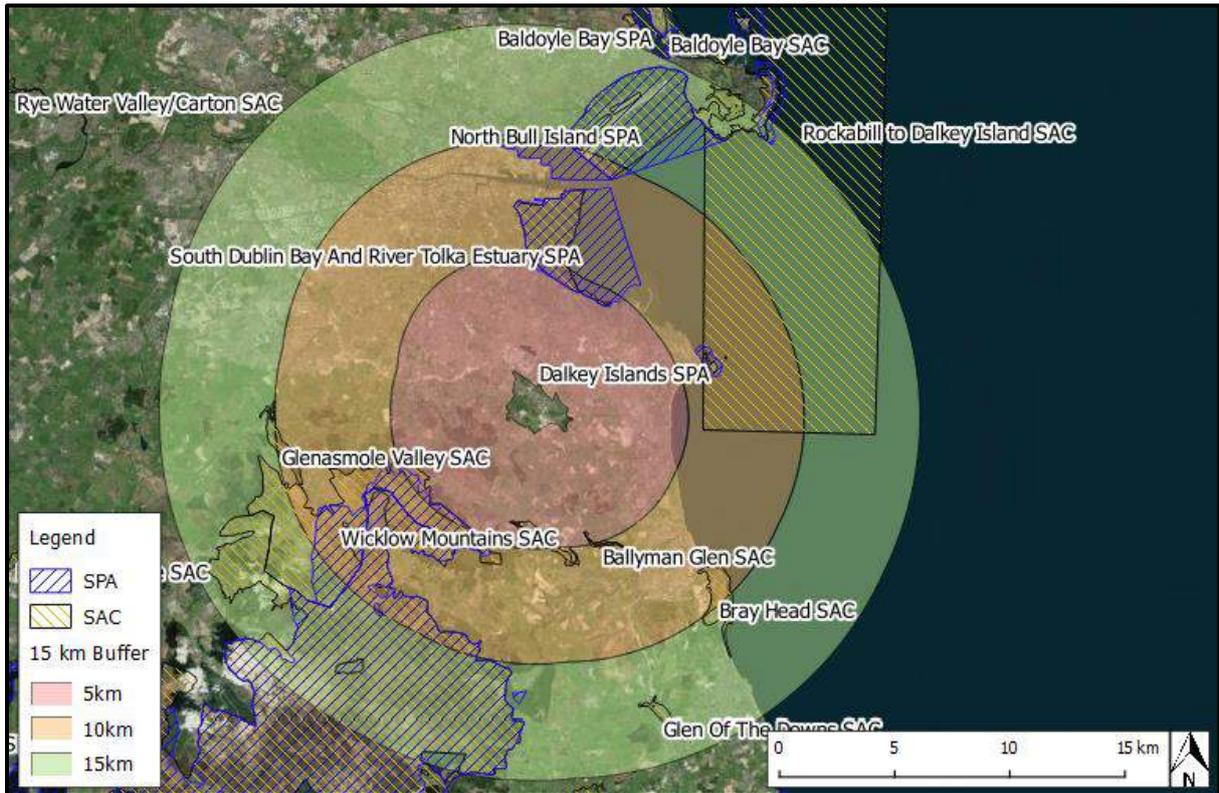


Figure 3.1 European Sites within 15 km of the LAP boundary³

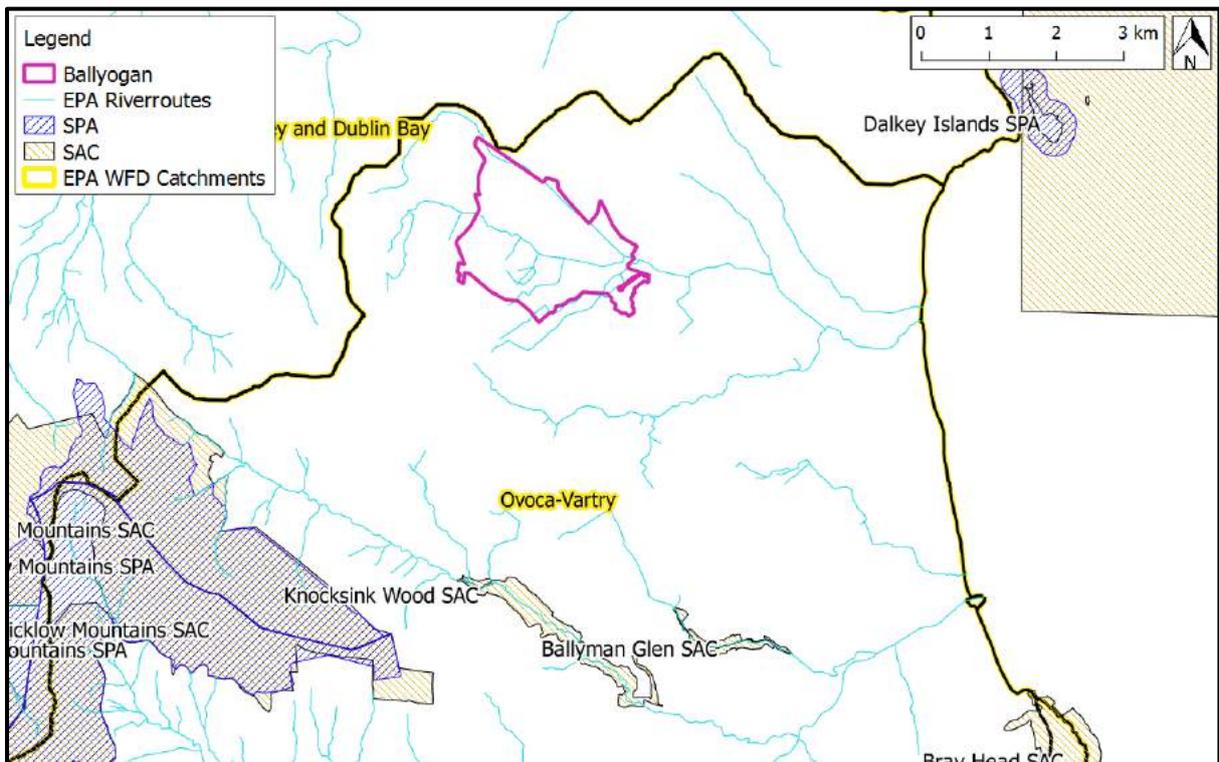


Figure 3.2 European Sites and EPA Rivers and Catchments

³ Source: NPWS (datasets downloaded March 2019)

Table 3.1 European Sites within 15 km of the LAP boundary (listed according to distance)

Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interests & Special Conservation Interests)	Site Synopsis and Existing Threats or Sensitivities
000725	Knocksink Wood SAC	4.03	Petrifying springs with tufa formation (Cratoneurion) [7220], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]	Knocksink Wood is situated in the valley of the Glencullen River, just north-west of Enniskerry in Co. Wicklow. The fast flowing Glencullen River winds its way over granite boulders along the valley floor. The steep sides of the valley are mostly covered with calcareous drift, and support extensive areas of woodland. The standard data form for the site details a list of potential threats for the site such as recreational activities, paths/tracks, artificial planting, missing or wrongly directed conservation measures, removal of forest undergrowth and camping/caravans. All of these pressures are identified within the boundary, the site synopsis has identified pressures that occur both outside and within the boundary including improved access to site, grazing and invasive species. No other site-specific threats have been identified by the NPWS.
004024	South Dublin Bay and River Tolka Estuary SPA	4.51	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina</i>) [A149], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Redshank (<i>Tringa totanus</i>) [A162], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193], Arctic Tern (<i>Sterna paradisaea</i>) [A194], Wetland and Waterbirds [A999]	The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The standard data form for the site details a list of potential threats for the site such as fishing, recreational activities, bait digging and disposal of waste resulting in discharges. All of these pressures are identified within the boundary. Pressures identified by the NPWS outside the boundary include roads and motorways and industrial urbanisation. No other site-specific threats have been identified by the NPWS.
002122	Wicklow Mountains SAC	4.83	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Natural dystrophic lakes and ponds [3160], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], European dry heaths [4030], Alpine and Boreal heaths [4060], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230], Blanket bogs (* if active bog) [7130], Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110], Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous rocky slopes with chasmophytic vegetation [8220], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], <i>Lutra</i> (Otter) [1355]	Wicklow Mountains SAC is a complex of upland areas in Counties Wicklow and Dublin, flanked by the Blessington reservoir to the west and Vartny reservoir in the east, Cruagh Mountain in the north and Lybagh Mountain in the south. Most of the site is over 300 m, with much ground over 600 m. Large areas of the site are owned by the National Parks and Wildlife Service (NPWS) and are managed for nature conservation based on traditional land uses of upland areas. The most common land use is traditional sheep grazing, but others include turf cutting, mostly hand cutting but some machine cutting also occurs. These activities are largely confined to the Military Road, where there is easy access. Large areas that had been previously hand-cut and are now abandoned are regenerating. In the last 40 years, forestry has become an important land use in the uplands, and has affected both the wildlife and the hydrology of the area. Amenity use is very high, with Dublin city close to the site. Peat erosion is frequent on the peaks. This may be a natural process, but is likely to be accelerated by activities such as grazing. No other site-specific threats have been identified by the NPWS.
000713	Ballyman Glen SAC	4.86	Petrifying springs with tufa formation (Cratoneurion) [7220], Alkaline fens [7230]	Ballyman Glen is situated approximately 3 km north of Enniskerry and straddles the County boundary between Dublin and Wicklow. It is orientated in an east-west direction with a stream running through the centre. The glen is bounded mostly by steeply sloping pasture with Gorse (<i>Ulex europaeus</i>) and areas of wood and scrub. An area of land that slopes towards the fen has been used as a landfill site for domestic refuse. The site is also used for a clay pigeon shoot and shattered clay pigeons are scattered throughout the area. The standard data form for the site details a list of potential threats for the site such as disposal of household/ recreational facility waste and grazing. All of these pressures are identified within the boundary; the site synopsis identifies a list of threats outside the boundary including pollution to surface water, urbanisations, roads/motorways, grazing, removal of hedges, forest planting and fertilisation. No other site-specific threats have been identified by the NPWS.
004040	Wicklow Mountains SPA	5.05	Merlin (<i>Falco columbarius</i>) [A098], Peregrine (<i>Falco peregrinus</i>) [A103]	This is an extensive upland site, comprising a substantial part of the Wicklow Mountains. The underlying geology of the site is mainly of Leinster granites, flanked by Ordovician schists, mudstones and volcanics. The area was subject to glaciation and features fine examples of glacial lakes, deep valleys and moraines. Most of site is over 300 m, with much ground over 600 m and the highest peak of Lugnaquilla at 925 m. The standard data form for the site details a list of potential threats for the site such as grazing, peat extraction, recreational activities and paths/cycleways. All of these pressures are identified within the site boundary the site synopsis identifies forestry as being a threat outside the boundary. No other threats have been identified by the NPWS.
004172	Dalkey Islands SPA	6.42	Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193], Arctic Tern (<i>Sterna paradisaea</i>) [A194]	The site comprises Dalkey Island, Lamb Island and Maiden Rock, the intervening rocks and reefs, and the surrounding sea to a distance of 200 m. Dalkey Island, which is the largest in the group, lies c. 400 m off Sorrento Point on the Co. Dublin mainland from which it is separated by a deep channel. The island is low-lying, the highest point of which (c. 15 m) is marked by a Martello Tower. The standard data form for the site details a list of potential threats for the site including Agricultural activities (grazing by feral sheep), recreational activities (walking, horse-riding, non-motorised vehicles, nautical sports). All of these pressures are identified within the SPA boundary. Urbanisation is identified as a threat by the NPWS outside the site boundary. No other threats have been identified.
000714	Bray Head SAC	8.52	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], European dry heaths [4030]	This coastal site is situated in the northeast of Co. Wicklow between the towns of Bray and Greystones. The bedrock geology is Cambrian quartzites and shales (with mudstones and greywackes). Bray Head consists of a plateau of high ground, with five prominent quartzite knolls and has a maximum height of 241 m. The more exposed higher ground has a covering of shallow acidic soils, with protruding bedrock and scree. Elsewhere, deeper soils are formed by drift deposits and are calcareous in character. The heath and grassland habitats at this site are threatened by

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Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interests & Special Conservation Interests)	Site Synopsis and Existing Threats or Sensitivities
				reclamation for agriculture and by frequent burning. The site is a popular recreational area and is especially used by walkers. The standard data form for the site details a list of potential threats for the site such as removal of hedges, motorised vehicles, paths/tracks and vandalism. All of these pressures are identified within the boundary. The NPWS have identified pressures outside of the boundary including urbanisation. No other site-specific threats have been identified by the NPWS.
003000	Rockabill to Dalkey Island SAC	9.31	Reefs [1170], Phocoena (Harbour Porpoise) [1351]	This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. These include sandy and muddy seabed, reefs, sandbanks and islands. This site extends southwards, in a strip approximately 7 km wide and 40 km in length, from Rockabill, running adjacent to Howth Head, and crosses Dublin Bay to Frazer Bank in south Co. Dublin. The site encompasses Dalkey, Muggins and Rockabill islands. The standard data form for the site details a list of potential threats for the site such as: Shipping lanes, professional active fishing, noise nuisance and noise pollution, discharge and utility & service lines. All of these pressures occur within and outside the boundary. No other site-specific pressures have been identified by the NPWS.
001209	Glenasmole Valley SAC	9.39	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinietalia caeruleae) [6410], Petrifying springs with tufa formation (Cratoneurion) [7220]	Glenasmole Valley in south Co. Dublin lies on the edge of the Wicklow uplands, approximately 5 km from Tallaght. The River Dodder flows through the valley and has been impounded here to form two reservoirs that supply water to south Dublin. The non-calcareous bedrock of the Glenasmole Valley has been overlain by deep drift deposits that now line the valley sides. They are partly covered by scrub and woodland, and on the less precipitous parts, by a herb-rich grassland. There is much seepage through the deposits, which brings to the surface water rich in bases, which induces local patches of calcareous fen and, in places, petrifying springs. The standard data form for the site details a list of potential threats for the site such as leisure fishing, invasive species, roads/paths/railroads. All of these pressures are identified within the boundary. The NPWS have identified pressures outside the site boundary these include: forest replanting, peat extraction, non-intensive grazing, pollution, forest planting (native trees), car parks and parking areas, artificial planting. No other pressures have been identified by the NPWS.
004006	North Bull Island SPA	9.47	Light-bellied Brent Goose (Branta bernicla hrota) [A046], Shelduck (Tadorna tadorna) [A048], Teal (Anas crecca) [A052], Pintail (Anas acuta) [A054], Shoveler (Anas clypeata) [A056], Oystercatcher (Haematopus ostralegus) [A130], Golden Plover (Pluvialis apricaria) [A140], Grey Plover (Pluvialis squatarola) [A141], Knot (Calidris canutus) [A143], Sanderling (Calidris alba) [A144], Dunlin (Calidris alpina) [A149], Black-tailed Godwit (Limosa limosa) [A156], Bar-tailed Godwit (Limosa lapponica) [A157], Curlew (Numenius arquata) [A160], Redshank (Tringa totanus) [A162], Turnstone (Arenaria interpres) [A169], Black-headed Gull (Chroicocephalus ridibundus) [A179], Wetland and Waterbirds [A999]	This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed because of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. The standard data form for the site details a list of potential threats for the site including, recreational activities, bait digging, transportation (bridge, viaduct), discharges and urbanisation. Pressures identified by the NPWS outside the boundary include urbanisation, shipping lanes, paths/tracks and continuous urbanisation. No other site-specific threats have been identified by the NPWS.
000206	North Dublin Bay	9.64	Mudflats and sandflats not covered by seawater at low tide [1140], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330], Mediterranean salt meadows (Juncetalia maritimi) [1410], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130], Humid dune slacks [2190], Petalophyllum ralfsii (Petalwort) [1395]	This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. The main land uses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co. Dublin and is used throughout the year. Much of the land surface of the island is taken up by two golf courses. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. The site is used regularly for educational purposes. North Bull Island has been designated a Special Protection Area under the E.U. Birds Directive and it is also a statutory Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site. The standard data form for the site details a list of potential threats for the site such as pollution to surface water, urbanisation, agricultural activities, intensive maintenance, recreational activities, bait digging/collection, invasive species. All of these pressures are identified within the boundary. The site synopsis identifies pressures beyond the site boundary including urbanisation and a golf course. No other site-specific threats have been identified by the NPWS.
000719	Glen of the Downs SAC	12.61	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	The heath and grassland habitats at this site are threatened by reclamation for agriculture and by frequent burning. The site is a popular recreational area and is especially used by walkers. The standard data form for the site details a list of potential threats for the site such as recreational activities, roads/motorways, missing or wrongly directed conservation measures. All of these pressures are identified within the boundary. The NPWS have identified pressures that occur both inside and outside of the boundary including invasive species, grazing and agricultural activities. No other site-specific threats have been identified by the NPWS.
004113	Howth Head Coast SPA	14.58	Kittiwake (Rissa tridactyla) [A188]	Howth Head is a rocky headland situated on the northern side of Dublin Bay. The peninsula is composed of Cambrian rock of the Bray Group, the most conspicuous component being quartzite. The site comprises the sea cliffs extending from just east of the Nose of Howth to the tip of the Bailey Lighthouse peninsula. The marine area is 500m from the cliff base is included within the site. The standard data form for the site details a list of potential threats for the site including fishing and recreational activities. All of these pressures are identified within the SPA boundary and the site synopsis does not identify any specific threats for the site beyond the boundary.
000202	Howth Head SAC	14.64	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], European dry heaths [4030]	Howth Head is a rocky headland situated on the northern side of Dublin Bay. The peninsula is composed of Cambrian slates and quartzites, joined to the mainland by a post-glacial raised beach. Limestone occurs on the north-west side while glacial drift is deposited against the cliffs in places. The main land use within the area is recreation, mostly walking and horse riding, and this has led to some erosion within the site. Fires also pose a danger to the site. There may also be a threat in some areas from further housing development. The standard data form for the site details a list of potential threats for the site such as: Sand and gravel quarries, invasive species, urbanisation, recreational activities, mining and quarrying,

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				vandalism, paths/tracks and a lack of grazing. All of these pressures are identified within and beyond the site boundary. No other pressures have been identified by the NPWS.
000199	Baldoyle Bay SAC	14.99	Mudflats and sandflats not covered by seawater at low tide [1140], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	Baldoyle Bay SAC extends from just below Portmarnock village to the west pier at Howth in Co. Dublin. It is a tidal estuarine bay protected from the open sea by a large sand-dune system. Two small rivers, the Mayne and the Sluice, flow into the bay. The area surrounding Baldoyle Bay is densely populated and so the main threats to the site include visitor pressure, disturbance to wildfowl and dumping. In particular, the dumping of spoil onto the foreshore presents a threat to the value of the site. The standard data form for the site details a list of potential threats for the site such as recreational activities, bait digging, invasive species, hunting and discharges. All of these pressures are identified within the boundary. The NPWS identifies a number of pressures outside the site such as paths/tracks and golf courses (within) no other site-specific pressures have been identified.
004016	Baldoyle Bay SPA	15.03	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Wetland and Waterbirds [A999]	Baldoyle Bay, located to the north and east of Baldoyle and to the south of Portmarnock, Co. Dublin, is a relatively small, narrow estuary separated from the open sea by a large sand dune system. Two small rivers, the Mayne River and the Sluice River, flow into the inner part of the estuary. The standard data form for the site details a list of potential threats for the site such as bait digging/hunting, Invasive species and recreational activities. All of these pressures are identified within the boundary. Urbanisation, agricultural activities, sport and leisure activities and roads and motorways are identified outside the boundary. The site synopsis does not identify any other specific threats for the site beyond the boundary.
004117	Irelands Eye SPA	16.54	Cormorant (<i>Phalacrocorax carbo</i>) [A017], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200]	Ireland's Eye is an uninhabited island located about 1.5 km north of Howth in Co. Dublin. The site encompasses Ireland's Eye, Rowan Rocks, Thulla, Thulla Rocks, Carrageen Bay and a seaward extension of 200m in the west and 500m to the north and east. The main habitat on the island is a mix of dry grassland and bracken. The seas to the north and east of the island (to a distance of 500 m), where seabirds feed, bathe and socialise, are included in the site. Owing to its proximity to the mainland, the island is popular with day-trippers and has educational value. The standard data form for the site details a list of potential threats for the site including fishing and recreational activities. All of these pressures are identified within the SPA boundary and the site synopsis does not identify any specific threats for the site beyond the boundary.

3.3 Assessment Criteria

3.3.1 Is the Plan Necessary to the Management of European Sites?

The primary purpose of the Plan is not the nature conservation management of the sites, but to provide a framework for the planned, co-ordinated and sustainable development in the Ballyogan area. Therefore, the Plan is not considered by the Habitats Directive to be directly connected with or necessary to the management of European designated sites.

3.3.2 Elements of the Plan with Potential to Give Rise to Effects

The Plan provides for the sustainable development of the Ballyogan and Environs area as per the information provided at Section 2 of this report, including under the following topics:

- Transport and Movement;
- Residential Development and Built Form;
- Retail and Employment;
- Built Heritage and Archaeology;
- Community Facilities;
- Leisure and Environment; and
- Sustainable Infrastructure.

Development under the Plan under these topics has the potential to introduce effects such as alteration to hydrological characterises, air quality and/or indirect disturbance effects due to noise/vibrations. This is particularly relevant for developments within the Jamestown Park area, which is a historic landfill site.

The water supply for the LAP is supplied principally by the Sandyford High Level Water Scheme. Waste water from the LAP is currently managed by the Shanganagh Bray Waste Water Treatment Plant under the existing waste water discharge licence No. D005-01 that was subject to its own AA process. The plan details policies to support Irish water in the provision of water services as follows:

- BELAP SI2: To support Irish Water in the provision of adequate water and waste water treatment infrastructure to serve the needs of the existing and future population of the Plan area and ensuring that such infrastructure is provided prior to, or in tandem with, new development; and
- BELAP SI3: To facilitate Irish Water in ensuring that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance.

Potential effects arising from the Plan are examined below in relation to the sensitive receptors of each of the European Sites identified with regard to their conservation objectives and the potential pathways for effects.

3.4 Types of Potential Effects and Changes

As outlined in the European Commission Environment DG document "*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*" outlines the types of effects that may affect European Sites. These include effects from the following activities:

- Land take
- Resource Requirements (Drinking Water Abstraction Etc.)
- Emissions (Disposal to Land, Water or Air)
- Excavation Requirements
- Transportation Requirements
- Duration of Construction, Operation, Decommissioning

In addition, the guidance document outlines the following likely changes that may occur at a designated site, which may result in effects on the integrity and function of that site:

- Reduction of Habitat Area
- Disturbance to Key Species
- Habitat or Species Fragmentation
- Reduction in Species Density
- Changes in Key Indicators of Conservation Value (Water Quality Etc.)
- Climate Change

3.5 Screening of Sites

Table 3.2 examines whether there is potential for effects on European Sites taking into account the information provided above, including that on Table 3.1.

3.6 Other Plans and Programmes

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combination with the plan or project, have the potential to adversely affect European Sites.

Table 3.3 outlines plans or projects that were considered by this AA screening exercise. The plans or projects are listed according to a spatial hierarchy of National, Regional/Local Projects and Plans, as follows:

Given the uncertainties that exist with regard to the scale and location of developments facilitated by the Plan, it is recognised that the identification of in-combination effects is limited and that the assessment of in-combination effects will need to be undertaken in a more comprehensive manner at the project-level.

Table 3.2 Screening assessment of the potential effects arising from the LAP

Site Code	Site Name	Characterisation of Potential Effects	Potential Significant Effects	Potential In-Combination Effects
000725	Knocksink Wood SAC	<p>This SAC is sensitive to effects from groundwater quality and land use management (see Table 3.1 for further details). The policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interact with the land management practices of the SAC or its receiving environment; and no surface water pathways for effects to the SAC. The pathways for groundwater interaction are not known and therefore are considered below.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Ballyogan and Environs area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policy EI2⁴, EI8⁵ and EI4⁶).</p> <p>Given the characteristics of the Plan (detailed above) and the existing, already in force policies relating to surface water drainage systems and groundwater protection within the CDP, it is considered that there are no sources with pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
004024	South Dublin Bay and River Tolka Estuary SPA	<p>This SPA is sensitive to effects from water quality, direct disturbance and/or land use management etc. (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interact with the land management practices of the SPA or its receiving environment.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
002122	Wicklow Mountains SAC	<p>This SAC is sensitive to effects from water quality and land use management (see Table 3.1 for further details). The policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that alter land use management activities within or around the SAC and there are no hydrological pathways for effects to the SAC. Therefore, following the source-pathway-receptor model no further considerations are required.</p>	No	No
000713	Ballyman Glen SAC	<p>This SAC is sensitive to effects from groundwater quality and land use management (see Table 3.1 for further details). The policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SAC or its receiving environment and no surface water pathways for effects to the SAC. The pathways for groundwater interaction are not known and therefore are considered below.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún</p>	No	No

⁴ It is Council policy to require that a Sustainable Drainage System (SuDS) is applied to any development and that site-specific solutions to surface water drainage systems are developed, which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans and 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document.

⁵ It is Council policy to ensure that all development proposals incorporate Sustainable Drainage Systems (SuDS).

⁶ It is Council policy to ensure the protection of the groundwater resources in and around the County and associated habitats and species in accordance with the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations, 2010.

Site Code	Site Name	Characterisation of Potential Effects	Potential Significant Effects	Potential In-Combination Effects
		Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4). Given the characteristics of the Plan (detailed above) and the existing, already in force policies relating to surface water drainage systems and groundwater protection within the CDP, it is considered that there are no sources with pathways for adverse effects to the ecological integrity of the European Sites.		
004040	Wicklow Mountains SPA	This SPA is sensitive to effects from water quality and or direct disturbance and land use management (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SPA or its receiving environment. The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time. The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4). Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.	No	No
004172	Dalkey Islands SPA	This SPA is sensitive to effects from water quality and or direct disturbance and land use management (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SPA or its receiving environment. The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time. The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4). Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.	No	No
000714	Bray Head SAC	This SAC is sensitive to localised land use activities such as removal of hedges and recreational infrastructure management etc. (see Table 3.1 for further details). The QIs of this site are terrestrial habitats and there are no pathways for effects identified between the Plan area and the SAC. Following a source-pathway-receptor model no further considerations are required.	No	No
003000	Rockabill to Dalkey Island SAC	This SPA is sensitive to effects from shipping lanes, noise pollution and discharge etc. (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interact with marine fisheries activities. The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time. The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4). Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.	No	No

Site Code	Site Name	Characterisation of Potential Effects	Potential Significant Effects	Potential In-Combination Effects
001209	Glenasmole Valley SAC	<p>This SAC is sensitive to effects from groundwater quality and land use management (see Table 3.1 for further details). The policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SAC or its receiving environment and no surface water pathways for effects to the SAC. The pathways for groundwater interaction are not known and therefore are considered below.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the existing, already in force policies relating to surface water drainage systems and groundwater protection within the CDP, it is considered that there are no sources with pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
004006	North Bull Island SPA	<p>This SPA is sensitive to effects from water quality and or direct disturbance and land use management (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SPA or its receiving environment.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
000206	North Dublin Bay SAC	<p>This SAC is sensitive to effects from water quality, recreational activity and/or land use management etc. (see Table 3.1 for further details). There are no policies or objectives that will introduce any sources for effect to interactions with land management practices of the SAC or its receiving environment. Recreational pressure of this site is not expected to increase due to limited connectivity between these sites and the distances between them.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
000719	Glen of the Downs SAC	<p>This SAC is sensitive to localised land use activities such as recreational use and motor/roadway developments (see Table 3.1 for further details). The QIs of this site are terrestrial habitats and there are no pathways for effects identified between the Plan area and the SAC. Following a source-pathway-receptor model no further considerations are required.</p>	No	No
004113	Howth Head Coast SPA	<p>This SPA is sensitive to effects from water quality and or direct disturbance and land use management (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SPA or its receiving environment.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the</p>	No	No

Site Code	Site Name	Characterisation of Potential Effects	Potential Significant Effects	Potential In-Combination Effects
		<p>Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>		
000202	Howth Head SAC	<p>This SAC is sensitive to localised land use activities such as quarrying and invasive species management (see Table 3.1 for further details). The QIs of this site are terrestrial habitats and there are no pathways for effects identified between the Plan area and the SAC. Following a source-pathway-receptor model no further considerations are required.</p>	No	No
000199	Baldoyle Bay SAC	<p>This SAC is sensitive to effects from water quality, recreational activity and/or land use management etc. (see Table 3.1 for further details). There are no policies or objectives that will introduce any sources for effect to interactions with land management practices of the SAC or its receiving environment. Recreational pressure of this site is not expected to increase due to limited connectivity between these sites and the distances between them.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
004016	Baldoyle Bay SPA	<p>This SPA is sensitive to effects from water quality and or direct disturbance and land use management (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SPA or its receiving environment.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankhill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>	No	No
004117	Irelands Eye SPA	<p>This SPA is sensitive to effects from water quality and or direct disturbance and land use management (see Table 3.1 for further details). Given the distances involved there are no pathways for disturbance effects. Additionally, the policies and objectives of the Plan focus on the development and planning within the Plan boundary and improving connectivity of public services to the area. There are no policies or objectives that introduce sources for effects that interaction with the land management practices of the SPA or its receiving environment.</p> <p>The dominant effects arising from the Plan that could influence ecological processes are associated with new developments and infrastructure. There are no existing threats identified within the Plan area that are adversely affecting the ecological integrity of European Sites. The characteristics of the Plan focus on the forward planning of future developments in a coordinated and sustainable manner. Any future projects, plans etc. that may arise will be subject consideration under the Habitats Directive; this is due to fine scale information and the location of specific developments not being known at this time.</p> <p>The Plan is a lower tier plan within a hierarchy of other plans, programmes, etc. and development within the Plan area is already required to comply with all elements of the existing Dún</p>	No	No

Site Code	Site Name	Characterisation of Potential Effects	Potential Significant Effects	Potential In-Combination Effects
		<p>Laoghaire-Rathdown County Development Plan 2016-2022, which was subject to Stage 2 AA. A number of existing, already in force policies and objectives must be complied with that account for potential effects to hydrological condition (e.g. Policies EI3, EI8 and EI4).</p> <p>Given the characteristics of the Plan (detailed above) and the indirect hydrological pathway for effects identified (the Plan area is situated within the Ovoca-Vartry river catchment; surface water systems drain the Plan area into the Shanganagh River that enters Dublin Bay at Shankill - see Figure 3.2) combined with the existing policies relating to surface water drainage systems and groundwater protection within the CDP; it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites.</p>		

Table 3.3 Other Plans, Programmes etc. considered by the AA Screening

Plan or project	Status	Overview	Possible significant effects from plan or project	Range of in-combination effects having the potential to arise from this Plan, Programme etc., in-combination with other Plans, Programmes etc.	Possible significant in-combination effects
National					
Ireland 2040 - Our Plan, the National Planning Framework (and associated National Development Plan)	Published	The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between.	This Framework was subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Potential in-combination effect may arise where there is a requirement to provide for new infrastructure or where new development occurs. Provision of infrastructure/development may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these documents will not be significant.
Grid 25	Published	Grid25 is a high-level strategy outlining how EirGrid intends to undertake the development of the electricity transmission grid in the short, medium and longer terms, to support a long-term sustainable and reliable electricity supply.	This plan was subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Potential in-combination effects may arise where there is a requirement to provide for new electrical infrastructure or where associated development occurs. Provision of infrastructure/development may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation. 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant
Energy Policy framework 2007-2020, Governments White Paper	Published	This policy states that the Government is committed to delivering a significant growth in renewable energy as a contribution to fuel diversity in power generation with a 2020 target of 33% electricity consumption	This plan was subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Potential in-combination effects may arise where there is a requirement to provide for new wind energy infrastructure or where new associated development occurs. Provision of infrastructure/development may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant.
Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan 2014-2016	Published	This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges that affect the provision of water services and identifies the priorities to be tackled in the short and medium term.	This plan was subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Potential in-combination effects may arise where there is a requirement to provide for new water and waste water infrastructure and capacity. Meeting additional potable water demands and waste water treatment demands arising from the proposed increase in population has the potential to adversely affect, in the case of abstractions from and effluent discharges to surface waters, the ecological status of surface waters and, in the case of groundwater abstractions, the quantitative status of groundwaters. Such demands would occur in-combination with those in adjoining counties. Adverse effects on the ecological status of surface waters and on the quantitative status of groundwaters would have the potential to impact upon protected species and habitats. Provision of infrastructure and increases in capacity may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant.

Plan or project	Status	Overview	Possible significant effects from plan or project	Range of in-combination effects having the potential to arise from this Plan, Programme etc., in-combination with other Plans, Programmes etc.	Possible significant in-combination effects
Regional					
Regional Planning Guidelines for the Greater Dublin Area 2010-2022, to be replaced by Regional Spatial and Economic Strategy	Published	Regional Planning Guidelines (RPGs) provide long-term strategic planning frameworks and will be replaced by Regional Spatial and Economic Strategies (RSESs). Each one of the three Regional Assemblies will prepare their own RSES, with the Greater Dublin Area Regional Assembly, of which Dún Laoghaire-Rathdown County Council is part, responsible for the preparation of a RSES for the Greater Dublin Region. The Regional Spatial and Economic Strategies will provide a long-term regional level strategic planning and economic framework in support of the implementation of the National Planning Framework.	The Guidelines were subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Potential in-combination effects may arise where there is a requirement to provide for new infrastructure or where new development occurs. Provision of infrastructure/development may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant.
Transport Strategy for the Greater Dublin Area 2016 – 2035, Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009), Ireland’s First National Cycle Policy Framework (2009)	Published	Outlines policies for how sustainable travel and transport systems can be achieved to create a connected city region driven by smarter mobility.	These plans were subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Potential for in-combination effects may arise where there is a requirement to provide for new transport infrastructure, or increase capacity of existing infrastructure/services. Provisions for the development of transport infrastructure/associated development may potentially result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant.
County/Local					
South Dublin County Development Plan 2016-2022, Dublin City Development Plan 2016-2022, Wicklow County Development Plan 2016-2022	Published	Overall strategies for the proper planning and sustainable development of the administrative area of the relevant local authorities.	These plans were subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Dún Laoghaire-Rathdown shares its boundary with a number of counties. Furthermore, a number of European Sites are located in more than one county. Similar development plans are in existence throughout the region, accordingly these plans acting alone or in combination can have a cumulative impact on European Sites located within County Dún Laoghaire-Rathdown. Provision of infrastructure or where new development occurs may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant.
Blackrock LAP 2015-2021, Deansgrange LAP 2015 (As extended), Stillorgan LAP 2018-2024, Woodbrook Shanganagh LAP 2017-2023, Kiltiernan Glenamuck LAP 2013 (As extended), Goatstown LAP 2010 (As extended), Sandyford Urban	Published	Overall strategies for the proper planning and sustainable development of the administrative area of the relevant Local Authorities.	These plans were subject to SEA and AA that incorporated robust mitigation measures to minimise effects.	Dún Laoghaire-Rathdown and the area around Ballyogan have a number of local areas that have had Local Area Plans created for them to facilitate cohesive and sustainable development within the county. Provision of infrastructure or where new development occurs may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation 	No, due to the mitigation measures contained within this document combined with the assessment contained in Table 3.2 that it is considered that there are no pathways for adverse effects to the ecological integrity of the European Sites arising from the Local Area Plan. In-combination effects from projects that arise from the implementation of these plans will not be significant.

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Plan or project	Status	Overview	Possible significant effects from plan or project	Range of in-combination effects having the potential to arise from this Plan, Programme etc., in-combination with other Plans, Programmes etc.	Possible significant in-combination effects
Framework Plan 2016-2022					

Section 4 Conclusion

This report to inform the AA Screening of the Ballyogan and Environs Local Area Plan 2019-2025 demonstrates that the implementation of the Plan will not result in adverse effects to the ecological integrity of any European Sites.

Following the source-pathway-receptor model, the relevant attributes of European Sites were assessed. The provisions of the Plan were considered in relation to the ecological sensitivities of each of the European Sites identified.

The risks to the safeguarding and integrity of the qualifying interests, special conservation interests and conservation objectives of the European Sites have been addressed through existing, already in force policies and objectives within the higher-level Dún Laoghaire-Rathdown County Development Plan (that was subject to Stage 2 AA) with which the Plan must comply. In addition, any future projects, plans etc. that may arise will themselves be subject to AA/screening for AA when further details of design and location are known.

It is concluded that the Plan will not give rise to any effect on the ecological integrity of any European Sites, alone or in combination with any other plans, programmes, and projects etc.

**Ballyogan and Environs
Local Area Plan
2019-2025**

Strategic Flood Risk Assessment

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1.1 Introduction

This Strategic Flood Risk Assessment (SFRA) of the Ballyogan and Environs Local Area Plan 2019-2025 (LAP) has been prepared and informed having regard to 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (2009), (DEHLG & OPW) and the SFRA undertaken at County level for the Dún Laoghaire-Rathdown County Development Plan 2016-2022 (CDP).

The Planning System and Flood Risk Management Guidelines state that Planning Authorities are required to introduce flood risk assessment as an integral and leading element of their Development Plan functions. It sets out that Development Plans and Local Area Plans must establish the flood risk assessment requirements for their functional area. The Guidelines further state that flood risk management should be integrated into spatial planning policies at all levels to enhance certainty and clarity in the overall planning process.

A Strategic Flood Risk Assessment is an area-wide assessment of the existing risks of flooding and the impact of those risks arising from proposed spatial planning decisions. A staged approach has been adopted in the preparation of this SFRA, as advocated under the Guidelines.

- Stage 1: Identifies if the area is at risk of flooding and if so, the principal sources of flooding.
- Stage 2: Flood Risk Assessment confirms sources of flooding that affect the Plan area and involve the preparation of a flood zone map, based on best available data. This assessment will also detail a flood management strategy for the Plan area, if necessary.
- Stage 3: Where a detailed Flood Risk Assessment is required to assess flood risk areas in sufficient detail and to provide quantitative appraisal of potential flood risk to a proposed or existing development, a Stage 3 Flood Risk Assessment will be carried out.

The Guidelines require the planning system at National, Regional and Local levels to:

- A: Avoid developments in areas at risk of flooding, particularly flood plains, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere.
- B: Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk, and incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

1.2 Flooding & Strategic Environmental Assessment (SEA)

The 'Planning System and Flood Risk Management Guidelines' set out best-practice in terms of integrating SFRA and SEA. In this regard, Section 3.10 of the Guidelines state that, "The SEA Process provides a good practice framework for scoping and considering a range of planning and environmental issues, including flooding in the plan making process" and that "Flood risk assessments carried out in response to these Guidelines, should be integrated with the SEA process".

The Guidelines further state that, "Where SEA and the environmental report is required, flood risk assessment should be undertaken as early as possible in the process so that the SEA is fully informed of the flood risks and impacts of the proposed zoning or development...".

Accordingly, this SFRA for the Ballyogan and Environs LAP has been prepared at the very outset of the plan-making process, as a working document to align with the initial scoping stage for the SEA. In this way, it is envisaged that the SFRA may be integrated into the parallel SEA Process.

1.3 Flood Risk Management – Development Plan Policy

Section 5.2.5.2 of the Dún Laoghaire-Rathdown CDP, Policy CC15, relates to flood risk management and states that:

It is Council policy to support, in cooperation with the OPW, the implementation of the EU Flood Risk Directive (2007/60/EC) on the assessment and management of flood risks, the Flood Risk Regulations (SI No 122 of 2010) and the Department of the Environment, Heritage and Local Government and the Office of Public Works Guidelines on 'The Planning System and Flood Risk Management, (2009)' and relevant outputs of the Eastern District Catchment and Flood Risk Assessment and Management study (ECFRAMS Study).

Section 5.2.5.2 further states that the Council will ensure the implementation of the Planning System and Flood Risk Management Guidelines and Planning Circular PL 2/2014 (or any updated / superseded document) in relation to flood risk management within the County. It refers to the SFRA of the County undertaken as part of the CDP process (Appendix 13), and that the implementation of the Guidelines will include, *inter alia*:

- Avoid, reduce and / or mitigate, as appropriate in accordance with the Flood Risk Management Guidelines, the risk of the flooding within the flood risk areas that may be identified during the period of the Plan or in relation to a planning application.
- Flood Risk Management and SFRA shall be incorporated into the preparation of all Local Area Plans and any other lower tier plans.
- Regard shall be had to any future flood hazard maps, flood risk maps and flood risk management plans prepared as part of the Eastern District Catchment Flood Risk Assessment and Management Study and future iterations of other similar studies of impacts of climate change.

In accordance with the Flood Risk Management Guidelines and CDP Policy, a Strategic Flood Risk Assessment has been prepared for the Ballyogan and Environs LAP.

1.4 Ballyogan and Environs Local Area Plan – Statutory Context

The Ballyogan and Environs LAP is being prepared as a result of, and in accordance with, the policies and objectives contained within the Dún Laoghaire-Rathdown CDP 2016-2022, the overarching statutory framework for the development of the County. The CDP states that spatially-based LAPs have been, and will continue to be, prepared by the Council, primarily targeted at new development nodes and areas of the County in need of redevelopment and/or regeneration.

The Core Strategy of the CDP identifies Stepside-Ballyogan and Carrickmines as two of the eight "*Primary Growth Nodes*" within the County, which will provide "...a significant portion of the supply of residential units..." up to the 2022 horizon. Specific Local Objective (SLO) 135, as contained in the CDP, requires the preparation of a LAP for Ballyogan and Environs, and is effectively the genesis of the BELAP process. SLO 135 is fleshed out in Section 1.3.4.9 of the CDP where it states that the Plan should address, in particular, the following:

- The provision of the collector Loop Road off the Ballyogan Road.
- The need to ensure the maintenance of higher densities in close proximity to quality public transport corridors.
- Further development of the central Greenway Spine (including addressing issues of permeability and pedestrian and cycle links to the Luas) to the planned Jamestown Park and beyond to the employment and retail areas at The Park, Carrickmines.

The Ballyogan and Environs LAP is being prepared in accordance with Sections 18-20 of the Planning and Development Act, 2000 (as amended). The parallel environmental assessments, namely, the SEA, Appropriate Assessment (AA) and the SFRA are being undertaken in tandem, as iterative processes, informing the preparation of the Ballyogan and Environs LAP.

1.5 Description of the Plan Area

The area covered by the Ballyogan and Environs LAP extends to approx. 420 hectares, which is 3.7% of the overall land area of Dún Laoghaire-Rathdown and nearly 7% of the current planned development area of the County as defined by the 'zoned' lands in the CDP. Based on the 2016 Census, the BELAP area accommodates a population of just over 9,500, which equates to 4.4% of the County's population. Topographically, the Plan area is notable in that it sits at the base of the foothills of the Dublin Mountains, with the land falling from the high ground at Stepside, down to the valley of the Ballyogan Stream.

In terms of land uses the LAP area is notably diverse. It includes a wide range of land uses such as the established village of Stepside, the new shopping and office district at Carrickmines, light industrial units and public utilities along Ballyogan Road, recreational facilities along Enniskerry Road at Jamestown, residential areas from multiple phases of development, and tracts of undeveloped lands such as at Clay Farm in Kilgobbin and the lands between Glenamuck Road and Leopardstown Racecourse, on the north side of the M50.

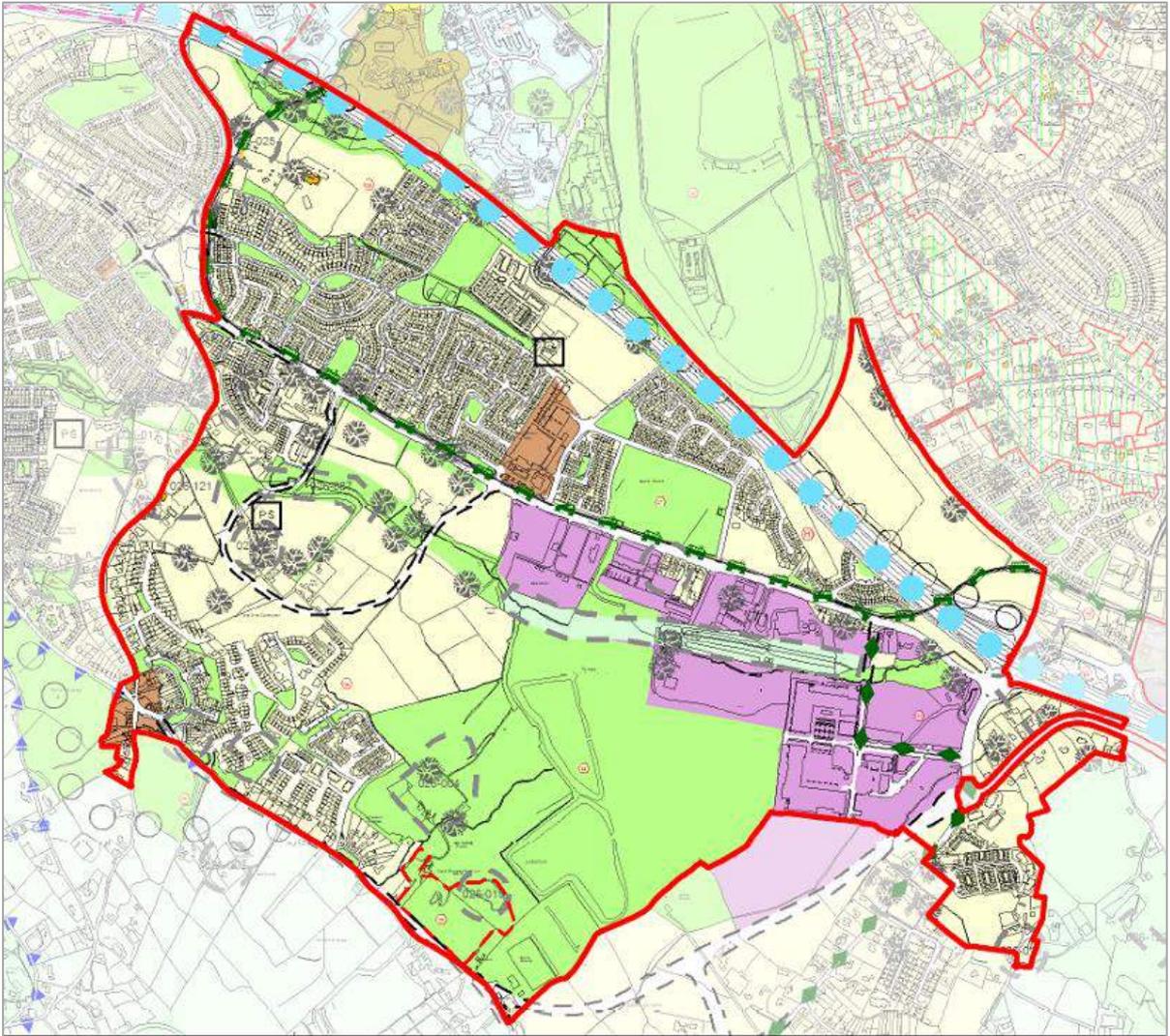


Figure 1: Ballyogan and Environs LAP - Plan Boundary Area

1.6 Identification of Flood Risk

i. Strategic Flood Risk Assessment - County Development Plan 2016-2022

An SFRA was undertaken for the Dún Laoghaire-Rathdown CDP 2016-2022, the purpose of which was to provide sufficient information to allow proper planning decisions to be made on sites at risk of flooding over the lifetime of the Plan, and to ensure that the necessary information with regard to flooding, the 'Sequential Approach' and the 'Justification Test', was available as part of the decision-making process of the CDP.

As recommended in the 'Planning System and Flood Risk Management Guidelines' the SFRA for the CDP undertook a two-stage assessment of flood risk for the entire County area. The first stage identified flood risk and developed flood zone maps which confirmed that a proportion of zoned lands were at risk of flooding. The second stage, and the main purpose of the SFRA document, highlighted development areas that require more detailed assessment on a site specific level. The SFRA also provides guidelines for development within areas at potential risk of flooding, and specifically looks at flood risk and the potential for development across the County.

The SFRA for the CDP provides a background to flood risk in Dún Laoghaire-Rathdown, including a review of available flood risk information and a summary of sources of flooding. It also provides an overview of flood management policy which includes details of development which may be appropriate in certain areas and the expected content of Site Specific Flood Risk Assessments (SSFRA). The 'Justification Test' was applied across the County, with particular regard to the major growth areas as identified under the Core Strategy.

The SFRA for the CDP sets out the definition of 'Flood Zones' as per the Planning System and Flood Risk Management Guidelines, with reference to the high, moderate or low-risk of flooding from fluvial or tidal sources, being based on an undefended scenario which does not take into account the presence of existing or proposed flood protection structures such as flood walls or embankments.

ii. Data and Flood Zone Maps of the County Development Plan 2016-2022

The SFRA undertaken for the CDP utilised a number of datasets relating to historical and predicted flood extents. The 'Identification of Flood Risk (Stage 1)', identified flood risk based on available data, including historical records and a range of data sources (see Table 3.1 of the CDP SFRA).

The National Catchment Flood Risk Assessment and Management Study (CFRAM) for the Eastern Region commenced in 2011 and sought to: assess flood risk through identification of flood hazard areas; identify viable structural and non-structural measures and options for managing the flood risk; and to prepare Flood Risk Management Plans (FRMPs) and SEA that includes measures and policies to be pursued.

The modelling for the CFRAM study for the Eastern Region, which includes Dún Laoghaire-Rathdown, was not yet finalised at the time of making the CDP. Notwithstanding the draft status of the CFRAM mapping at the time, the flood extent maps which were used as the basis of the SFRA for the CDP had been the subject of several iterations throughout the CFRAM process. The CDP acknowledged the CFRAM studies were a work in progress and in this regard, Policy CC14 of the CDP states the following:

It is Council policy to assist the Office of Public Works (OPW) in the preparation of the Regional Catchment Flood Risk Assessment (CFRAM) Study being carried out

for the Eastern District. Any recommendations and outputs arising from the CFRAM study for the Eastern District that are relevant for Dún Laoghaire Rathdown will require to be incorporated into the Development Plan.

This range of data sources were compiled to produce flood zone maps that formed the basis of the SFRA for the CDP, which in turn guided CDP policy and informed the application of the 'Justification Test'. However, the SFRA cautions that the input data was developed at a point in time and that, as a result, there may be changes in the catchment that means a future study, or more localised assessment of risk, may result in a change in either flood extent or depth. In this regard the SFRA notes that an SSFRA may result in more locally accurate information which could show a greater or lesser level of risk than is included in the flood zone maps of the CDP.

iii. Flood Zone Maps – SFRA of County Development Plan

Flood Zone Maps for the entire County were prepared as part of the SFRA for the CDP utilising the draft CFRAM Study Maps and other data sources. The Flood Zone Maps show Flood Zones A, B, and C and also identify historical and predicted flooding hotspots in the County.

iv. Definition of Flood Zones

Flood Zone	Description
Zone A High Probability of Flooding	This zone defines areas with the highest risk of flooding from rivers (i.e. more than 1% probability or more than 1 in 100) and the coast (i.e. more than 0.5% probability or more than 1 in 200)
Zone B Moderate Probability of Flooding	This zone defines areas with a moderate risk of flooding from rivers (i.e. 0.1% to 1% probability or between 1 in 100 and 1 in 1000) and the coast (i.e. 0.1% to 0.5% probability or between 1 in 200 and 1 in 1000)
Zone C Low Probability of Flooding	This zone defines areas with a low risk of flooding from rivers and the coast (i.e. less than 1 in 1000)

1.7 Ballyogan and Environs LAP – Identification of Flood Risk

i. Watercourses

The primary watercourse in the LAP area is the Ballyogan Stream that traverses the lands from west to east. The Ballyogan Stream is a component part of the wider Carrickmines/Shanganagh River system. The Stream originates in Three Rock Mountain and joins the Loughlinstown Stream to become the Shanganagh River before discharging to Killiney Bay at Shanganagh. The Stream is culverted in parts including through the Ballyogan landfill site for a length of approx. 250m.

The watercourse known as 'Golf Stream' was previously culverted through the Ballyogan landfill site but was diverted in 2005 to flow around the landfill along its western boundary. The diversion works re-directed the stream to flow northwards and join the Ballyogan Stream. The south east boundary of the LAP area drains eastwards from the landfill to meet the Glenamuck Stream that then flows northwards and joins the Carrickmines/Shanganagh River system. The Racecourse Stream is located to the north of the M50 and flows from west to east converging with the Carrickmines/Shanganagh River system in and around the M50 Carrickmines Interchange.

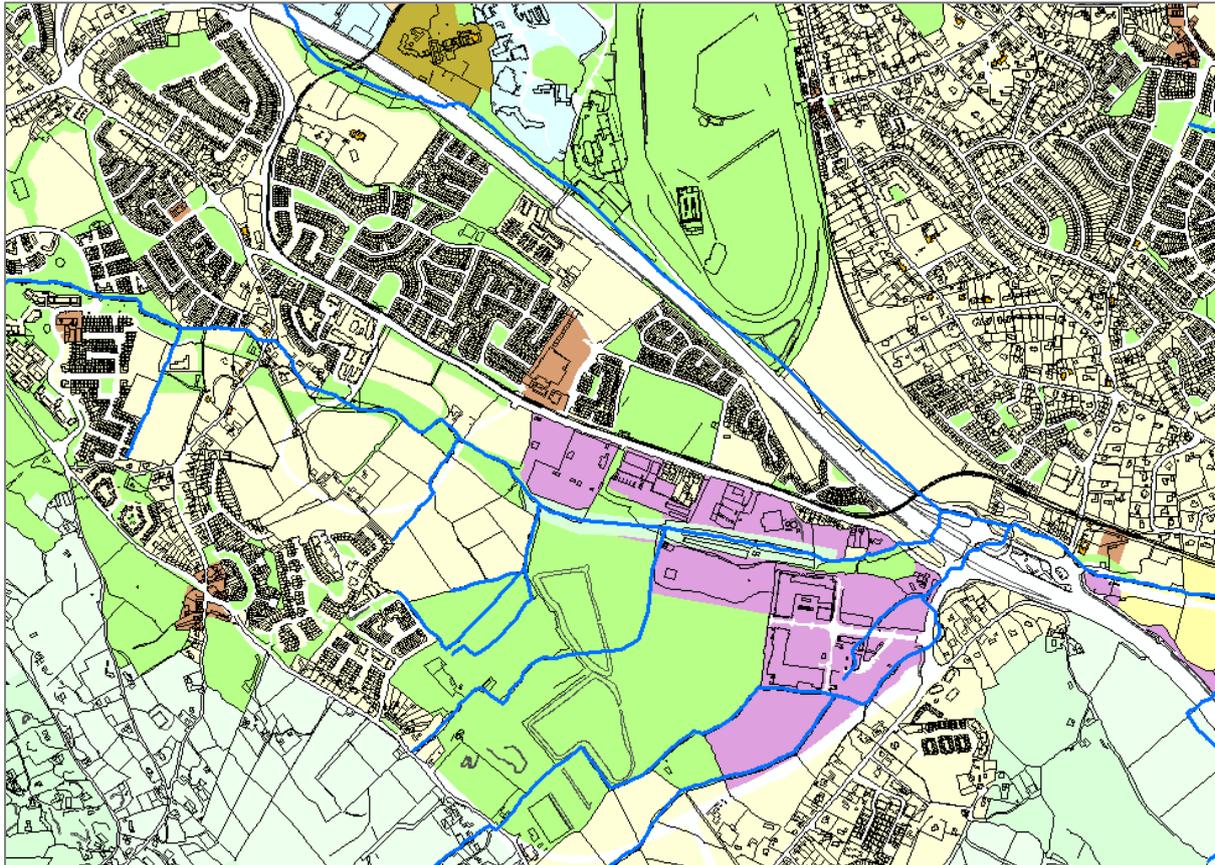


Figure 2: Primary Watercourses in the Ballyogan LAP Area

ii. Flood Zone Maps

Dún-Laoghaire Rathdown CDP 2016-2022 - SFRA

Flood Zone Maps were developed as part of the SFRA for the CDP. Maps 6 and 9 of the SFRA relate to the Ballyogan and Environs LAP area and extracts from same are set out in Figure 3 below. The Maps show that the Ballyogan and Environs LAP lands are primarily located within Flood Zone C (low probability); with a significant swathe of Flood

Zone A and B lands (high probability and moderate probability) running from the Kilgobbin Road in the west of the LAP area to Junction 15 of the M50 in the east. These Flood Zones are associated with the Ballyogan Stream and primarily incorporate some large single dwellings located off the Kilgobbin Road and undeveloped lands near Clay Farm and lands to the north and north-east of The Park, Carrickmines.

In addition to identifying areas at risk of flooding, the SFRA Flood Zone Maps also identify historical and predicted flooding hotspots in the County. Historical surface water hotspots are those where Dún Laoghaire-Rathdown County Council has a record of a flood occurring, although in some cases work may have been carried out to remediate the issue. The predicted hotspots are based on modelling and indicate where surface water has the potential to pond to depths of greater than 0.3m. The Flood Zone Maps (see Figure 3 below) identify a predicted flooding hotspot adjacent to the Glenamuck Road at lands to the east of The Park, Carrickmines.

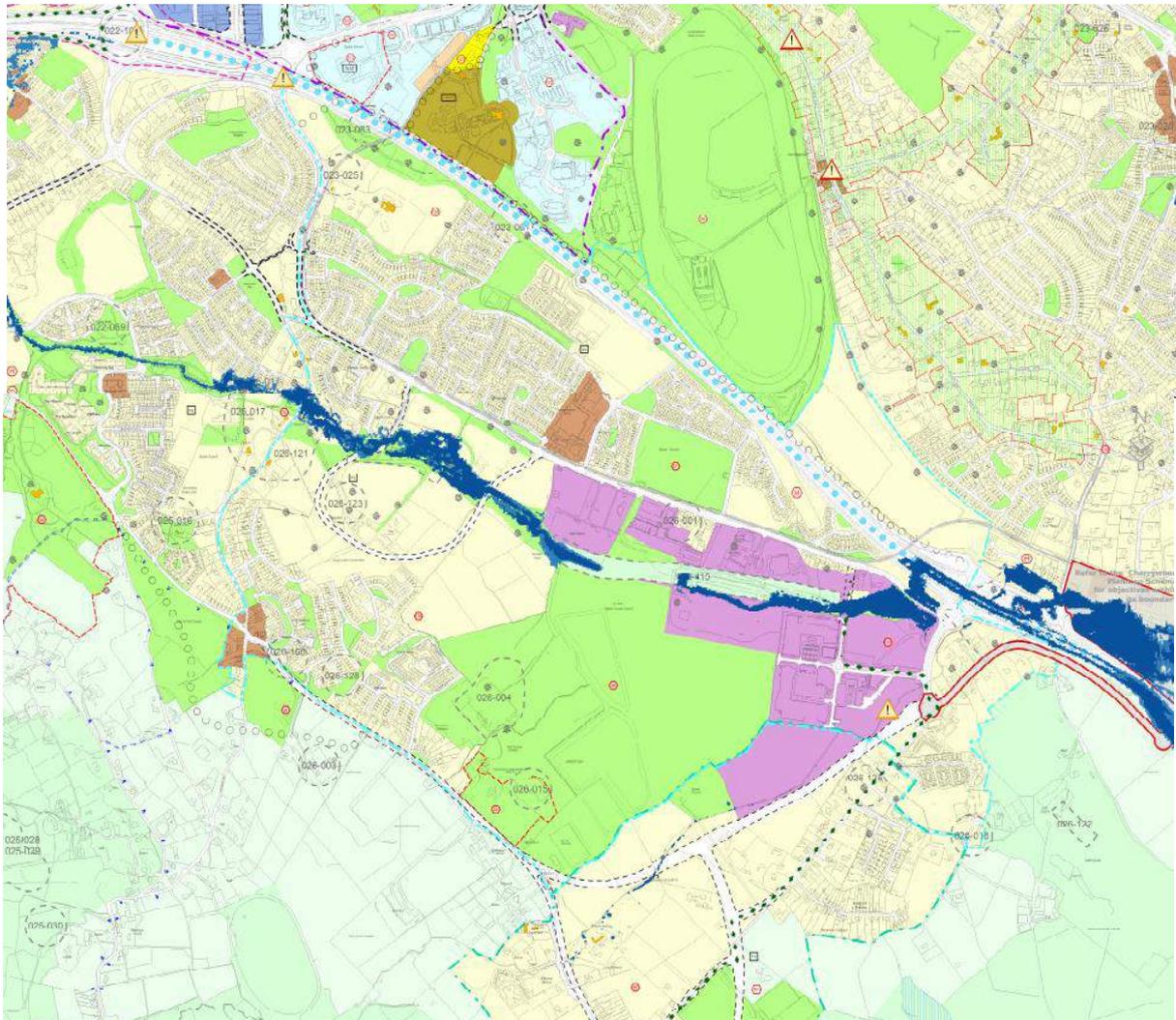


Figure 3: DLR CDP 2016-2022: Extract from Flood Zone Maps 6 and 9

Eastern CFRAM River Flood Extents

Fluvial flooding occurs when rivers and streams break their banks and water flows out onto the adjacent low-lying areas (the natural floodplains). This can arise where the run-off from heavy rain exceeds the natural capacity of the river channel, and can be exacerbated where a channel is blocked or constrained.

As set out in Section 1.6(ii) above, the CFRAM Study for the Eastern Region had not been finalised at the time of developing the Flood Zone Maps for the CDP SFRA. The

most up-to-date maps now available for the Fluvial Flood Extents of the Shanganagh-Carrickmines River are from 2017, subsequent to the adoption of the CDP, and an extract of same is set out in Figures 4 & 5 below. These updated Fluvial Flood Extent Maps have been considered as part of the SFRA for the LAP.

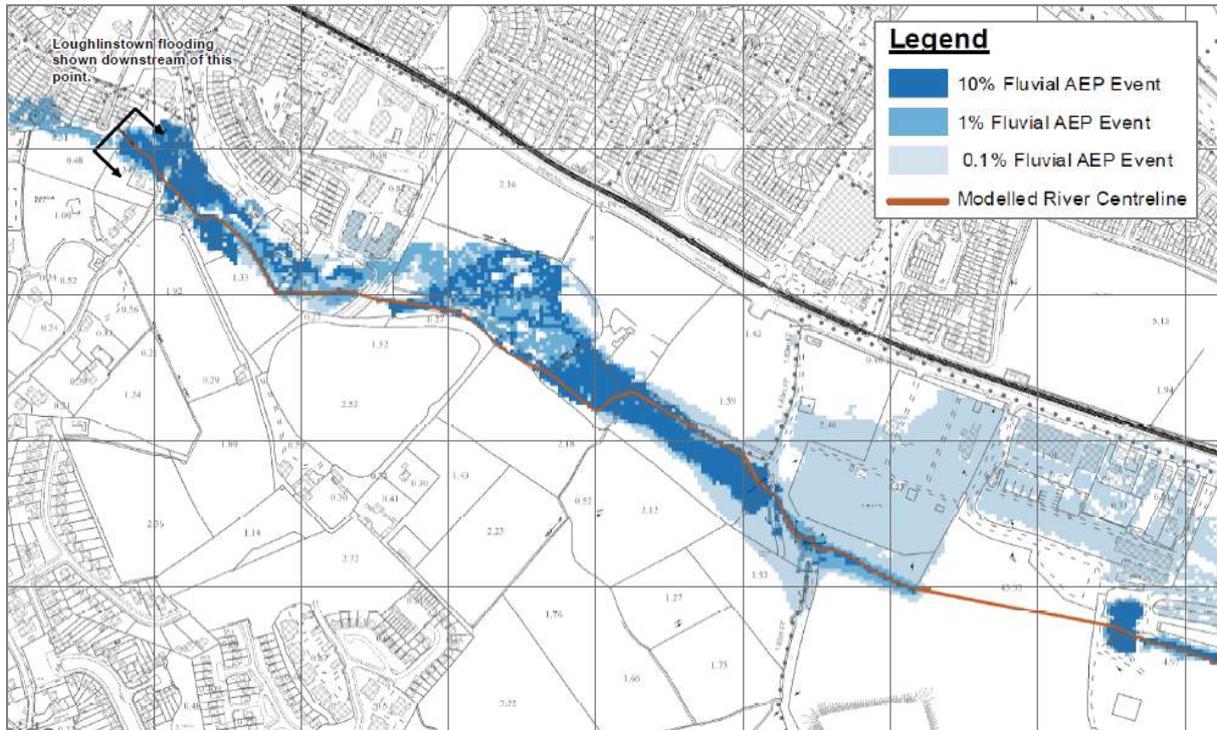


Figure 4: CFRAM - Shanganagh-Carrickmines River Fluvial Flood Extents Map (Drawing No. E09CAR_EXFCD_F2_01)

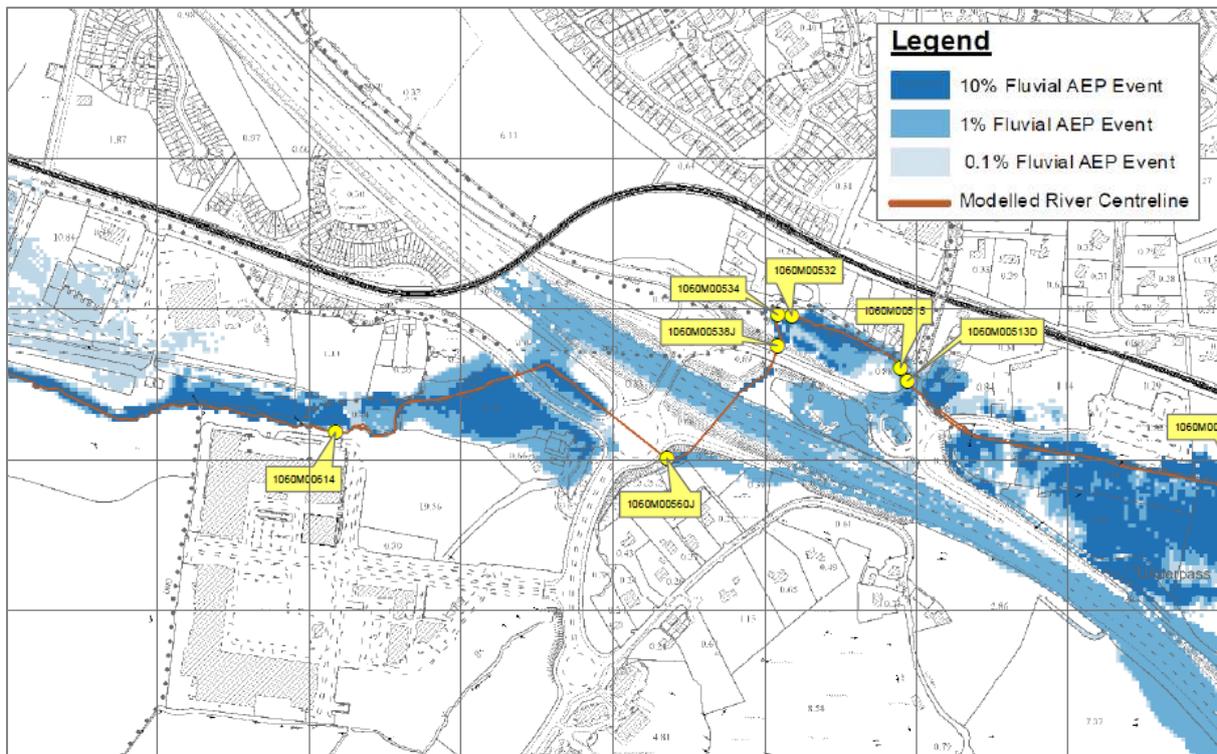


Figure 5: CFRAM - Shanganagh-Carrickmines River Fluvial Flood Extents Map (Drawing No. E10LOU_EXFCD_F1_02)

iii. Historical Flooding Records

The following sets out an overview of the main historical flooding events, and causes where known, that are relevant to the Ballyogan and Environs LAP area (illustrated in Figure 6 below). Each of these historical flood events are recorded as having occurred at either the perimeter or outside of the Ballyogan and Environs LAP boundary.

- **Kilgobbin Road (2011):** Flooding at Kilgobbin Road, Stepside, Co. Dublin on 24th October 2011. The source of the flood waters was the overtopping of the Carrickmines River upstream of the Kilgobbin Road Bridge. Flows may have exceeded the capacity of the Kilgobbin Bridge. There were also out-of-channel flows from a tributary, which connected to the Carrickmines River downstream of the Kilgobbin Road Bridge. It was estimated that three properties flooded and the Kilgobbin Road was affected for 300m.
- **Kilgobbin Road Recurring (2005) - Flood ID No. 2068:** Problems with drainage (old culvert).
- **Glenamuck Road Recurring (2005) - Flood ID No. 2069:** Some road flooding after heavy rain due to ditch blocking.
- **Shanganagh Carrickmines (1982, 1993, 1997 and 2002):** Flooding of the Cabinteely River at Carrickmines.

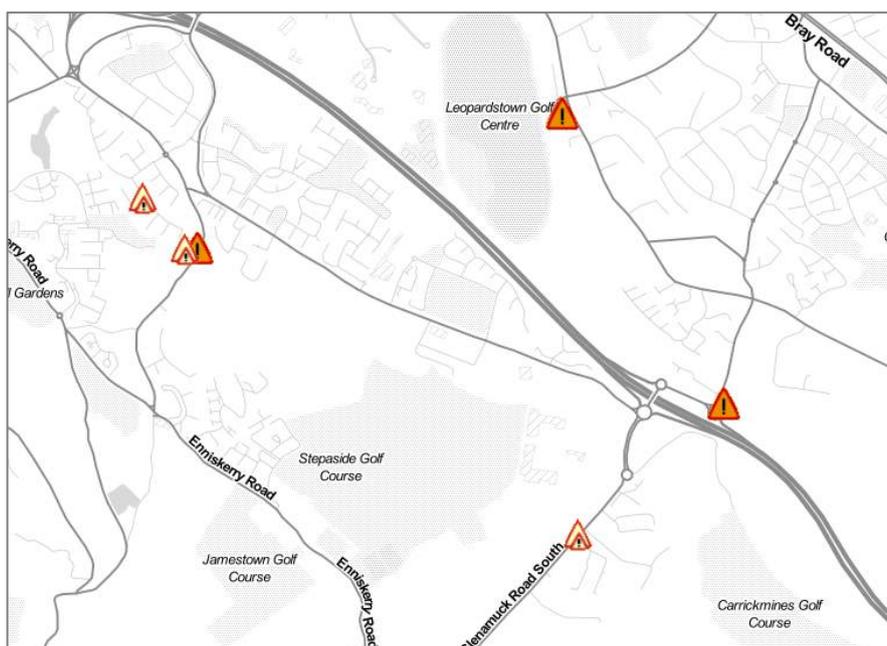


Figure 6: Historical Flooding Records

iv. OPW - Flood Risk Management Plans

Following the completion of the OPW's CFRAM Programme, the Government approved funding for a series of Flood Risk Management Plans. The purpose of these Flood Risk Management Plans is to set out the strategy, including proposed measures, for the cost-effective and sustainable, long-term management of flood risk in River Basins, including the areas where flood risk has been determined as being potentially significant.

The Flood Risk Management Plan for the Avoca - Vartry River Basin was one of the 29 Plans published and this Management Plan incorporates the Carrickmines/Shanganagh River. The Plan, which is for the period of 2018-2021, sets out to progress the development of a Flood Relief Scheme for Loughlinstown (which incorporates the Ballyogan Stream) through the identification of recommended flood risk management measures.

1.8 The Sequential Approach & Justification Test

As set out in Chapter 3 of the 'Planning System and Flood Risk Management Guidelines', the key principles of the risk-based Sequential Approach is managing flood risk in the preparation of plans, and these principles are adhered to in the Ballyogan and Environs LAP.

This is the key tool in the decision-making process of preparing plans to ensure that development is first and foremost directed towards land that is at low risk of flooding. This approach makes use of existing Flood Risk Assessments and other data identifying flood zones for rivers, coastal and fluvial flooding and the classification of the vulnerability of flooding of different types of development. The sequential approach in terms of flooding is based on the following principles:

- The primary objective of the sequential approach is that development is primarily directed towards land that is at low risk of flooding (AVOID).
- The next stage is to ensure that the type of development proposed is not especially vulnerable to adverse impacts of flooding (SUBSTITUTION).
- The Justification Test is designed to rigorously assess the appropriateness, or otherwise, of particular developments that, for various reasons, are being considered in areas of moderate or high flood risk (JUSTIFICATION). The Justification Test comprises of two processes, namely, the Plan-Making Justification Test and the Development Management Justification Test.

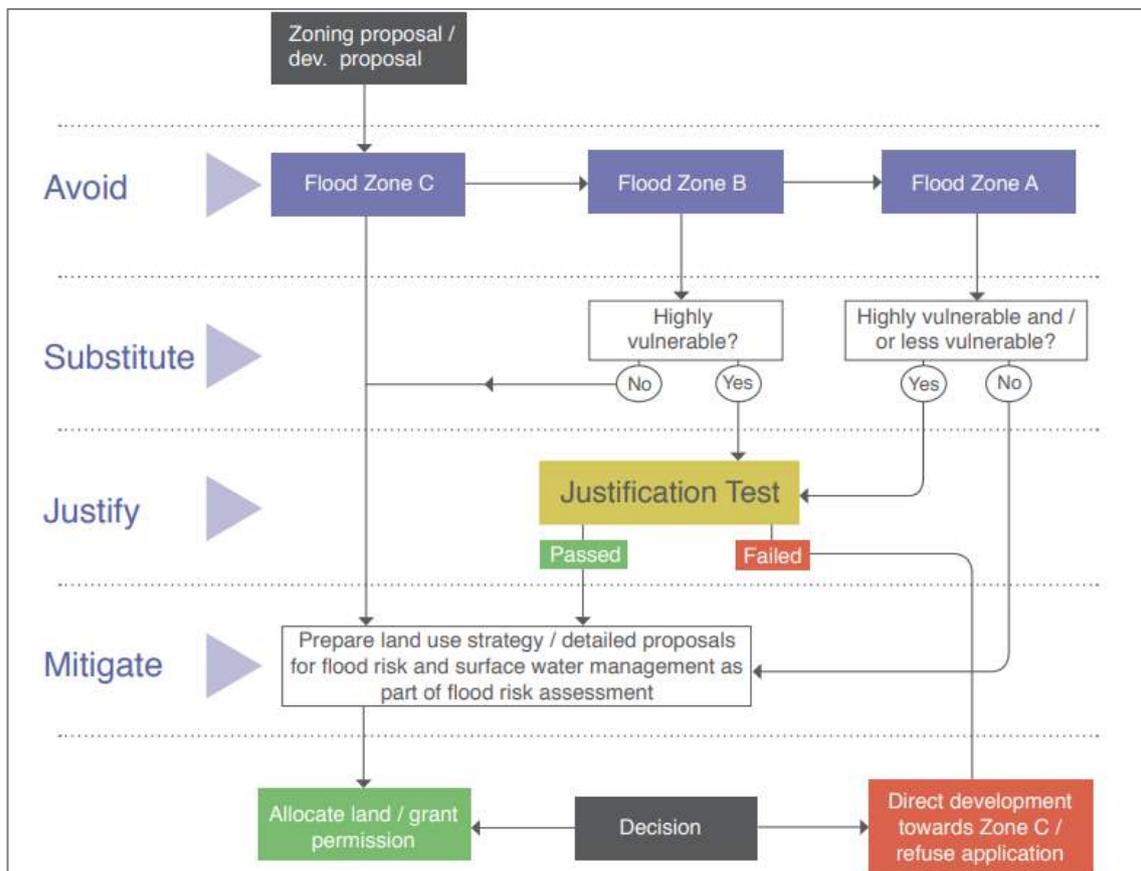


Figure 7: The Sequential Approach Mechanism in the Planning Process

i. The Plan Making Justification Test

The SFRA undertaken for the CDP indicated that there was existing, developed and zoned areas within the County that were at risk of flooding (Flood Zone A and Flood Zone B). Having reviewed the level of flood risk within the County through the preparation of flood zone maps, and determined appropriate measures for assessing and managing risks to high and low vulnerability development in Flood Zones A, B and C, a more detailed assessment of sites and areas was carried out through the Plan-Making Justification Test. The Plan Making Justification Test was applied to lands throughout the County including lands within the boundary of the Ballyogan and Environs LAP. An overview of the CDP Plan-Making Justification, with reference to the Ballyogan and Environs LAP area, is set out hereunder.

Undeveloped Land

In relation to undeveloped land, the Plan Making Justification Test for the CDP concluded the following:

'With the exception of zoned Major Town Centres, District Centres and Sandyford Business District, new development within Flood Zones A or B does not pass the Justification Test and will not be permitted. This applies to undeveloped areas which are zoned for development but are currently undeveloped and to areas of existing low intensity development. Whilst lands may have retained a zoning objective which would include development, applying the guidance in Section 4 means such development is restricted to Flood Zone C, with water compatible uses located within Zone A and B.'
(Emphasis Added)

Plan-Making Justification Test (Part 1 & 2)

The SFRA for the CDP applied Part 1 and Part 2 of the Plan-Making Justification Test to lands in the County with zoning objectives A, A1, A2, NC, DC, MTC, E, TLI, MH, MIC, MOC, OE, W that were **already developed** (excluding areas with very low intensity development) and included existing vulnerable uses that were in Flood Zone A and/or B.

	Criteria	Response
1	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	The National Spatial Strategy 2002-2022 is a twenty year plan for the Country and consolidating the Greater Dublin Area, a Gateway, is a primary policy of this Strategy. The Regional Planning Guidelines for the Greater Dublin Area 2010 – 2016 show the entire built up area of the County of Dun Laoghaire Rathdown as falling within the Metropolitan Area as illustrated in Figure 12 (p89 of Development Plan).
2	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2 (i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement.	All of these areas are developed areas that include suburban housing and are essential in order to support the continued viability of the urban centres in the County.
2 (ii)	Comprises significant previously developed and/or under-utilised lands.	All the lands in question contain existing development and are therefore previously developed lands.
2 (iii)	Is within or adjoining the core of an established or designated urban settlement.	The lands in question fall within the Metropolitan Area of the GDA.
2 (iv)	Will be essential in achieving compact and sustainable urban growth.	As the lands in question contain existing development in the County they are already

		essential in achieving compact and sustainable urban growth.
2 (v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	There are no suitable alternative lands identified within the County.

Table 1: CDP – Plan Making Justification Test (Part 1 and 2)

Plan-Making Justification Test (Part 3)

Part 3 of the Plan-Making Justification Test was applied to lands throughout the County including lands within the catchment of the Carrickmines River (that incorporates the Ballyogan Stream). As set out in Section 1.7 above, it is the Ballyogan Stream that is the primary source of flooding within the Ballyogan and Environs LAP area. In this regard, the Plan-Making Justification Test undertaken for the CDP SFRA stated the following:

Carrickmines River

(Note: The 'Carrickmines/Shanganagh' river catchment comprises several tributaries including the Carrickmines River, Loughlinstown River, Shanganagh River, Glenamuck Stream, Brides Glen River, Foxrock Stream and Cabinteely Stream. The boundaries of these sub-catchments are not definitive and may indeed overlap and thus are to be considered indicative only.)

The Carrickmines River is shown in Figure 5-6. As part of the Cherrywood SDZ (12) process a stage 3 FRA was carried out, and included assessment of risks at the M50 and Carrickmines Luas Station (Priorsland). As a result, the SDZ has not been re-reviewed under this SFRA. Much of the river margins upstream of the Cherrywood SDZ, and therefore Flood Zone A and B, are within land zoned for open spaces uses, and this should be retained as water compatible uses (13). New development within Flood Zone A and B cannot be justified.

Towards the upstream end of the Carrickmines River is an area of existing, low density residential housing (14). Flood risk in this area is indicated to be high, with many properties in Flood Zone A. Future development in this area should be limited to extensions to existing dwellings and should not include infill or larger scale new development. Minor extensions (such as garages and conservatories) are unlikely to increase flood risk and may be considered but uses which introduce additional people into the floodplain (such as an extension to a nursing home or change of use from less to highly vulnerable) should be avoided. The CFRAM extends along the Carrickmines River and may include flood management measures which, when implemented, will allow development to occur. (Emphasis Added)

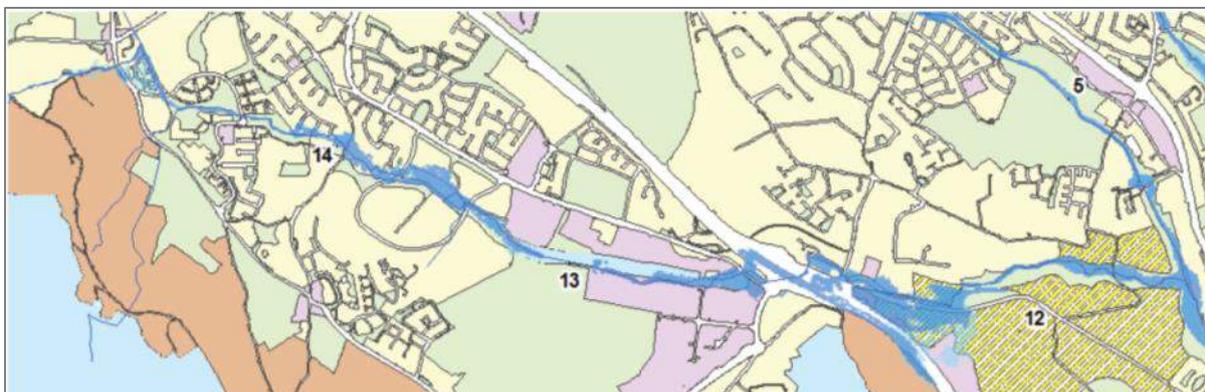


Figure 8: Figure 5-6, Appendix 13, SFRA, DLR CDP 2016

1.9 Flood Risk Management – Policy Response

This Section of the SFRA sets out the policy response for the management of flood risk within the Ballyogan and Environs LAP area. This Section should be read in conjunction with the overarching guidance set out in the SFRA for the CDP and that contained in the Planning System and Flood Risk Management Guidelines.

i. Requirements for a Flood Risk Assessment

For proposals within the Ballyogan and Environs LAP area an appropriately detailed flood risk assessment will be required in support of all planning applications. The level of detail will vary depending on the risks identified and the proposed land use. At a minimum, all proposed development, including that in Flood Zone C, must consider the impact of surface water flood risks on drainage design. In addition, flood risk from sources other than fluvial should be reviewed.

ii. Development Proposals in Flood Zone C

The majority of lands in the Ballyogan and Environs LAP area are located within Flood Zone C. Where a site is located within **Flood Zone C**, but adjoining, or in close proximity to, Flood Zone A or B there could be a risk of flooding associated with factors such as future scenarios (climate change) or in the event of failure of a defence, or blocking of a bridge or culvert. Risk from sources other than fluvial must also be addressed for all development in Flood Zone C. At a minimum in such a scenario, a FRA should be undertaken which will screen out possible indirect sources of flood risk and, where these risks cannot be screened out, mitigation measures should be presented.

iii. Applications for Development at Undeveloped Land (Flood Zones A & B)

The river margins of the Ballyogan Stream, which traverses the BELAP area from west to east, incorporates **undeveloped lands** which are located within both Flood Zones A and B. These undeveloped lands are primarily zoned Objective 'F' – *'to preserve and provide for open space with ancillary active recreational amenities'*, and also Objective 'G' – *'To protect and improve high amenity areas'*. Additional undeveloped lands include small areas of Objective 'A' residential zoned lands at Golf Lane adjacent to the M50 slip road and small areas of land at Clay Farm. In addition some undeveloped Objective 'E' zoned lands adjacent to The Park, Carrickmines are also located within Flood Zones A and B.

In line with the SFRA for the CDP, new development at these undeveloped lands located within Flood Zones A and B in the Ballyogan and Environs LAP area do not pass the Justification Test and will not be permitted. New development in these undeveloped areas is restricted to Flood Zone C with only water compatible uses to be located in Flood Zones A and B. Notwithstanding, the Planning Authority acknowledges that an SSFRA may result in more locally accurate information which could show a greater or lesser level of risk than is included in the existing extents of Flood Zones A and B.

iv. Applications for Minor Developments in Developed Areas (Flood Zones A & B)

With regard to minor development in developed areas, the Sequential Approach and Justification Test will not apply as they relate to **existing buildings and developed lands**. As part of the SFRA undertaken for the CDP, small scale infill housing, extensions and changes of use were considered and, subject to site specific flood risk assessment, can generally be considered appropriate provided they constitute a continuation of the existing level of development.

There are a number of exceptions however, including the western portion of the BELAP area near Kilgobbin Road that includes an area of existing, low density residential housing (identified as no. '14' on Figure 5-6 in the CDP SFRA – see Figure 8 above). As identified in Part 3 of the Justification Test for the CDP SFRA, flood risk in this area is indicated to be high, with some properties in Flood Zone A. It is considered that future development in this area should be limited to extensions to existing dwellings and should not include infill or larger scale new development. Minor extensions (such as garages and conservatories) are unlikely to increase flood risk and may be considered but uses which introduce additional people into the floodplain (such as an extension to a nursing home or change of use from less to highly vulnerable) should be avoided.

The finalised CFRAM mapping for the BELAP area (see Figures 4 and 5 above) identifies a quantum of already developed Objective 'E' and Objective 'A' zoned lands, to the south of the Ballyogan Road, that are located within Flood Zone B. The potential for flooding at this location is likely affected by the 'backing-up' of the Ballyogan Stream culvert that passes through the former Ballyogan Landfill site. These lands are primarily comprised of 'less vulnerable development' save for the Carrickmines ESB Substation, a crèche and montessori facility, and some residential units, that are classified as 'highly vulnerable development'.

While the Sequential Approach and Justification Test will not apply to these zoned lands as they relate to existing buildings and developed lands, an assessment of the risks of flooding should, however, accompany all applications for minor development to demonstrate that the development would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities. Where possible, the design of built elements in these applications should demonstrate principles of flood resilient design (see Section 4 – Designing for Flood Risk of the Technical Appendices to the DoECLG Flooding Guidelines).

The following sets out a checklist of what is required for planning applications for minor development works in the Ballyogan and Environs LAP area that are at risk of flooding:

Planning Application Checklist
<ul style="list-style-type: none"> • Consideration of minor works classification (Class 1 or Class 2 – see CDP SFRA).
<ul style="list-style-type: none"> • Assessment of flood risk carried out by an appropriately qualified Engineer with relevant FRA experience (as deemed acceptable by the Planning Authority).
<ul style="list-style-type: none"> • Flood resilient design.
<ul style="list-style-type: none"> • Access, egress and emergency plans must be in place which are appropriate to the vulnerability of the development and its occupiers, the intensity of use and the level of flood risk.

In all instances above, it is highlighted that the any forthcoming Flood Risk Management Plan resulting from the CFRAM Study of the Carrickmines River may include flood management measures which, when implemented, may allow development to occur outside of the above guidance.

v. Applications for Larger Developments in Developed Areas (Flood Zones A & B)

Highly Vulnerable Development in Developed Areas (Flood Zones A & B)

Development which is highly vulnerable to flooding includes *inter alia* dwelling houses, residential care homes, hospitals, emergency services and primary strategic transport and utilities infrastructure (as defined in the 'Planning System and Flood Risk Management Guidelines'). As per the SFRA prepared for the CDP it is not appropriate for new, highly vulnerable development to be located on greenfield land in Flood Zones A or

B, particularly outside the core of a settlement and where there are no flood defences. Such proposals do not pass the Justification Test.

As noted above, the finalised CFRAM mapping for the BELAP area (see Figures 4 and 5 above) identifies a quantum of **already developed** Objective 'E' and Objective 'A' zoned lands, to the south of the Ballyogan Road, that are located within Flood Zone B. As set out in Section 1.8 above, these Objective 'E' zoned lands are deemed to have passed the Plan-Making Justification Test (Parts 1, 2 & 3). Notwithstanding, any planning applications for large highly vulnerable development on Flood Zone B lands will be subject to the findings of Part 3 of the Plan-Making Justification Test (set out in Section 1.8 above) and all applicable flood management requirements set out in the SFRA for the CDP and the 'Planning System and Flood Risk Management Guidelines' (to include the Development Management Justification Test). Of prime importance is the requirement to manage risk to the development site and not to increase flood risk elsewhere.

Less Vulnerable Development in Developed Areas (Flood Zones A & B)

Less vulnerable development includes *inter alia* retail, leisure, warehousing and secondary strategic transport and utilities infrastructure. This category includes less vulnerable development in all forms, including refurbishment or infill development, and new development both in defended and undefended situations.

The design and assessment of less vulnerable development should begin with 1% AEP fluvial or 0.5% tidal events as standard, with climate change and a suitable freeboard included in the setting of finished floor levels.

The presence or absence of flood defences informs the level of flood mitigation recommended for less vulnerable developments in areas at risk of flooding. In contrast with highly vulnerable development, there is greater scope for the developer of less vulnerable uses to accept flood risks and build to a lower standard of protection, which is still high enough to manage risks for the development in question. However, any deviation from the design standard of 1%/0.5% AEP, plus climate change, plus freeboard, needs to be fully justified within the FRA.

Major developments may be located in areas with a higher likelihood of flooding, provided the risks are understood, and accepted, and operability and emergency response is clearly defined; this may allow construction to a finished floor level which is lower than the 'ideal' starting point.

The following sets out a checklist of what is required for planning applications for larger developments in developed areas at risk of flooding in the Ballyogan and Environs LAP area:

Planning Application Checklist
<ul style="list-style-type: none"> • Development Management 'Justification Test' has been passed.
<ul style="list-style-type: none"> • FRA in accordance the Dún Laoghaire-Rathdown SFRA and the Planning System and Flood Risk Management Guidelines, to be carried out by an appropriately qualified Engineer with relevant FRA experience (as deemed acceptable by the Planning Authority).
<ul style="list-style-type: none"> • Flood resilience statement to be submitted.
<ul style="list-style-type: none"> • Compliance with the Greater Dublin Strategic Drainage Study and inclusion of SuDS.
<ul style="list-style-type: none"> • Assessment of the potential impacts of Climate Change and the adaptive capacity of the development.
<ul style="list-style-type: none"> • Access, egress and emergency plans must be in place which are appropriate to the vulnerability of the development and its occupiers, the intensity of use and the level of flood risk.

1.10 Conclusion

It is the strategy of Dún Laoghaire-Rathdown Council, in accordance with the 'Planning System and Flood Risk Management Guidelines', to reduce the potential risk to people, property and the environment, caused by flooding, through a hierarchy of avoidance, followed by substitution of lower vulnerability uses and, only if avoidance and substitution are not possible, reduction and management of the risks through a variety of techniques.

Having regard to the SFRA undertaken for the CDP, the majority of lands within the Ballyogan and Environs LAP area are located within Flood Zone C (lowest probability) while lands adjacent to the Ballyogan Stream, that flows from west to east through the Plan area, are identified as within both Flood Zone A and B (high probability and moderate probability).

The SFRA for the Ballyogan and Environs LAP sets out the policy response relating to the management of flood risk within the Plan area for both developed and undeveloped lands in areas at risk of flooding. For proposals within the Ballyogan and Environs LAP area, an appropriately detailed flood risk assessment will be required in support of all planning applications. All planning applications will be required to submit a Site Specific Flood Risk Assessment addressing risks from all sources of flooding, using current and approved future data sets. The level of detail will vary depending on the risks identified and the proposed land use. All new development will be required to comply with the Greater Dublin Strategic Drainage Study for surface water management, with possible provision for the Eastern CFRAMS High End Future Scenario.

1.11 Disclaimer

It is important to note that compliance with the requirements of the Planning System and Flood Risk Management Guidelines, 2009, and the Floods Directive 2007 60/EC is a work in progress. This guide for Flood Risk Assessment is based on best available information and may require revision as new information becomes available.

Accordingly, all information in relation to flood risk is provided for general policy guidance only. It may be altered in light of future data and analysis. As a result, all landowners and developers are advised that Dún Laoghaire-Rathdown County Council accepts no responsibility for losses or damages arising due to the vulnerability to flooding of lands, uses and developments. It remains the principal responsibility of owners, users and developers to take all reasonable measures to assess the vulnerability to flooding of lands in which they have an interest prior to making planning or development decisions.

The indicative flood zone map (see Figure 3) for the Ballyogan and Environs LAP area does not show indicative flood hazard associated with any of the following:

- Extreme fluvial dominated combinations with pluvial flows
- Extreme pluvial events
- Blocked drains
- High ground water level conditions
- Other unforeseen events, e.g. bridge /culvert collapse etc.

Dún Laoghaire-Rathdown County Council makes no representations, warranties or undertakings about any of the information provided in this SFRA for the Ballyogan and Environs LAP, including without limitation, on its accuracy, completeness, quality or fitness for any particular purpose. To the fullest extent permitted by applicable law, neither Dún Laoghaire-Rathdown County Council nor any of its members, officers, associates, consultants, employees, affiliates, servants, agents or other representatives shall be liable for loss or damage, arising out of or in connection with, the use of, or the inability to use, the information provided in this plan, including but not limited to, indirect or consequential loss or damages, loss of data, income, profit, or opportunity, loss or, or damage to, property and claims of third parties, even if Dún Laoghaire-Rathdown County Council has been advised of the possibility of such losses or damages, or such losses or damages were reasonably feasible. Dún Laoghaire-Rathdown County Council reserves the right to change the content and / or presentation of any of the information provided in this report at its sole discretion, including these notes and disclaimer. This disclaimer shall be governed by, and construed in accordance with, the laws of the Republic of Ireland. If any provision of this disclaimer shall be unlawful, void or for any reasons unenforceable, that provision shall be deemed severable and shall not affect the validity and enforceability of the remaining provisions.

APPENDICES TO SFRA

APPENDIX 1: Flood Risk Management Strategy Objectives

(See Section 10.3 Sustainable Infrastructure of LAP)

SI7:	Policy BELAP SI7 – SuDS: To ensure that Sustainable Drainage Systems (SuDS) is applied to any development in the BELAP area and that site specific solutions to surface water drainage systems are developed which meet the requirements of the Water Framework Directive and associated River Basin Management Plan. SuDS measures may include green roofs, permeable paving, detention basins, water butts, infiltration etc.
SI8	Policy BELAP SI8 – Public Open Space: Where Sustainable Drainage Systems (SuDS) measures are integrated successfully into the layout of public open space in a comprehensive overall design; these areas may be counted as satisfying part of the public open space requirement in quantitative terms up to a maximum level of 20% of the overall public open space requirement. Areas prone to periodic flooding may be incorporated within public open space.
SI9	Policy BELAP SI9 – Groundwater: To ensure the protection of groundwater resources within the BELAP boundary and associated habitats and species in accordance with the EU Groundwater Directive. All new planning applications within the BELAP boundary shall have regard to the likely impacts the proposed development may have on groundwater resources.
SI10	<p>Policy BELAP SI10 – Flood Risk Assessment: To require all proposed developments to carry out a Site-Specific Flood Risk Assessment that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> • The Planning System and Flood Risk Management, Guidelines for Planning Authorities (DEHLG / OPW, 2009), as may be revised and/or updated. • The prevailing Dún Laoghaire-Rathdown County Development Plan. • Any SSFRA shall not be required to carry out a Plan-Making Justification Test, given that this exercise was already carried out at County Development Plan-level. A review of this process was also undertaken as part of the preparation of this Local Area Plan (LAP). • The SSFRA shall pay particular emphasis to site specific mitigation measures and any necessary management measures, as per Appendix B4 of the above 2009 National Guidelines.

APPENDIX 2: SuDS Measures for New Development

It is an objective to promote Sustainable Drainage Systems (SuDS) to manage surface and ground water regimes sustainably. The following measures are key elements of the SuDS solution proposed for the LAP Area in the public realm areas, i.e. those areas not within private developments.

SuDS in the Public Realm: Options for Consideration Include:

Ponds: These will provide storage to meet attenuation requirements for the 1 in 100 year criterion. Ponds provide the final stage of treatment for water runoff prior to discharge to the watercourses. Ponds also provide amenity and biodiversity benefits in accordance with best design practice.

Detention Basins: These are vegetated surface storage basins that provide flow control through attenuation of stormwater runoff. They also facilitate some settling of particulate pollutants. They are normally dry and in most cases can accommodate soft landscaping and contribute to local amenity.

Infiltration Basins: Located at carefully selected locations in the detention basins. These are vegetated depressions designed to store run off and infiltrate it gradually into the ground. These are very effective at pollutant removal and contribute to groundwater recharge.

Infiltration Trenches & Engineered Swales: These can be located throughout public realm spaces and along selected routes including green routes and cycle routes. These are narrow excavations (1 to 2 m depth) filled with selected stone that create temporary subsurface storage for infiltration of stormwater runoff.

Underground Modular Systems: These have a high void ratio (e.g. Stormtech system or similar) and can be used subject to agreement with the Local Authority in any suitable locations of open spaces and parks subject to level and ready access to provide below ground storage and infiltration.

Tree Root Structural Cell Systems: (e.g. Silva Cell) are subsurface tree and stormwater systems that hold large soil volumes while supporting traffic loads beneath paving and hardscapes. It is proposed that these will be used throughout the LAP area to assist with attenuation and groundwater recharge.

SuDS in Development Sites

Run-off from all sites must pass through at least one level of treatment using a SuDS component prior to the final level of treatment in the public realm areas. The various SuDS measures that are required for different development types include:

Green Roofs: As well as providing environmental benefits, the installation of green roofs allows for more efficient use of space. Properly placed roof terraces and gardens visible from residential units or within a building enhance the aesthetic experience of the building and open up additional space for amenity, recreational and commercial use. Internal courtyards, terraces and roof tops can serve as multi-functional spaces.

Pervious Paving / Permeable Surfacing: Where courtyards and walkways in landscaped areas are proposed, it is suggested that permeable surfacing is considered. A variety of new durable permeable surfacing solutions are now available on the market (proposals where surface water accesses the underground storage via gaps in

interlocking paving will not be permitted – grilles, gullies, or similar, that are easily maintained are only permitted).

Infiltration Trenches: See Above

Detention Basins: See Above

Swales: Swales are shallow, flat bottomed vegetated open channels designed to convey, treat and attenuate surface water runoff. For design guidance refer to Chapter 17 of the CIRA SuDS Manual 2015.

Water Butts: Large containers used for collecting and storing rainwater for use on the property. Generally plastic and located to the rear of a property and connected to the downpipe.

Tree Root Structural Cell Systems: See Above

Rain Water Harvesting: Rainwater is collected from a roof or paved surface in an underground or over ground tank for use on the site. Depending on its intended usage the system may include treated elements, for design guidance refer to Chapter 11 of the CIRIA SuDS Manual 2015.

APPENDIX 3: Glossary of Terms

Annual Exceedance Probability (AEP) - Likelihood or probability of flooding or a particular flood event is classified by its annual exceedance probability (AEP) or return period (in years). A 1% AEP flood indicates the flood event that will occur or be exceeded on average once every 100 years and has a 1 in 100 chance of occurring in any given year.

Catchment - The area that is drained by a river or artificial drainage system.

Catchment Flood Risk Assessment and Management Studies (CFRAMS) - A catchment-based study involving an assessment of the risk of flooding in a catchment and the development of a strategy for managing that risk in order to reduce adverse effects on people, property and the environment. CFRAMS precede the preparation of Flood Risk Management Plans.

Flood Risk - An expression of the combination of the flood probability or likelihood and the magnitude of the potential consequences of the flood event. Flood Risk Assessment (FRA) can be undertaken at any scale from the National down to the individual site and comprises three stages: flood risk identification, initial flood risk assessment and detailed flood risk assessment.

Flooding (or inundation) - Flooding is the overflowing of water onto land that is normally dry. It may be caused by overtopping or breach of banks or defences, inadequate or slow drainage of rainfall, underlying groundwater levels or blocked drains and sewers. It presents a risk only when people, human assets and ecosystems are present in the areas that flood.

Flood Defence - A man-made structure (e.g. embankment, bund, sluice gate, reservoir or barrier) designed to prevent flooding of areas adjacent to the defence.

Flood Risk Assessment (FRA) - An examination of the risks from all sources of flooding of the risks to and potentially arising from development on a specific site, including an examination of the effectiveness and impacts of any control or mitigation measures to be incorporated in that development.

Flood Zones - A geographic area for which the probability of flooding from rivers, estuaries or the sea is within a particular range as defined within these Guidelines.

Fluvial Flooding - Flooding from a river or other watercourse.

Groundwater Flooding - Flooding caused by groundwater escaping from the ground when the water table rises to or above ground level.

Initial Flood Risk Assessment - A qualitative or semi-quantitative study to confirm sources of flooding that may affect a Plan area or proposed development site, to appraise the adequacy of existing information, to provide a qualitative appraisal of the risk of flooding to development, including the scope of possible mitigation measures, and the potential impact of development on flooding elsewhere, and to determine the need for further detailed assessment.

'Justification Test' - An assessment of whether a development proposal within an area at risk of flooding meets specific criteria for proper planning and sustainable development and demonstrates that it will not be subject to unacceptable risk nor increase flood risk elsewhere. The 'Justification Test' should be applied only where

development is within flood risk areas that would be defined as inappropriate under the screening test of the sequential risk based approach adopted by this guidance.

Likelihood (probability of flooding) – A general concept relating to the chance of an event occurring. Likelihood is generally expressed as a probability or frequency of a flood of a given magnitude or severity occurring or being exceeded in any given year. It is based on the average frequency estimated, measured or extrapolated from records over a large number of years and is usually expressed as the chance of a particular flood level.

Mitigation Measures - Elements of a development design which may be used to manage flood risk to a development, either by reducing the incidence of flooding both to the development and as a result of it and/or by making the development more resistant and/or resilient to the effects of flooding.

Precautionary Approach - The approach to be used in the assessment of flood risk which requires that lack of full scientific certainty, shall not be used to assume flood hazard or risk does not exist, or as a reason for postponing cost-effective measures to avoid or manage flood risk. River Basin Management Plan (RBMP) is required by the EU Water Framework Directive (2000/60/EC). These plans will establish a strategic plan for the long-term management of the River Basin District, set out objectives for water bodies and in broad terms, identify what measures are planned to meet these objectives, and act as the main reporting mechanism to the European Commission.

Pluvial Flooding - Usually associated with convective summer thunderstorms or high intensity rainfall cells within longer duration events, pluvial flooding is a result of rainfall-generated overland flows which arise before run-off enters any watercourse or sewer. The intensity of rainfall can be such that the run-off totally overwhelms surface water and underground drainage systems.

Return Period - The return period is means of expressing the likelihood or probability of flooding or a particular flood event occurring and is comparable to the AEP of the event. A 1% AEP flood indicates the flood event that will occur or be exceeded on average once every 100 years and has a 1 in 100 chance of occurring in any given year.

'Sequential Approach' - The 'Sequential Approach' is a risk-based method to guide development away from areas that have been identified through a flood risk assessment as being at risk from flooding.

Site Specific Flood Risk Assessment – An examination of the risks from all sources of flooding of the risks to and potentially arising from development on a specific site, including an examination of the effectiveness and impacts of any control or mitigation measures to be incorporated in that development.

Strategic Flood Risk Assessment (SFRA) - The assessment of flood risk on a wide geographical area against which to assess development proposed in an area (Region, County, Town).

Surface Water Management – This activity focuses on the assessment and management of flood risk within the urban environment from sources primarily resulting from intense rainfall. Surface water management should understand the performance of the urban drainage network, where exceedance flow routes would form and what impact this would have. Solutions to surface water flood risk can involve green infrastructure provision to capture and direct these excessive flows to lower vulnerable areas or open space. New development can provide solutions to reducing run-off not only from the proposed development also from existing areas. This should be considered in the SFRA in critical areas where development is planned upstream of flooding hotspots.

Sustainable Drainage Systems (SuDS) - A form of drainage that aims to control run-off as close to its source as possible using a sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques.

Source: Definitions are for the most part sourced from the DEHLG / OPW Guidelines for Planning Authorities on 'The Planning System and Flood Risk Management, 2009'.