



# CHERRYWOOD

PLANNING SCHEME

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Environmental Report

# ENVIRONMENTAL REPORT

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FOR THE

## CHERRYWOOD PLANNING SCHEME

**for: Dún Laoghaire-Rathdown County Council**

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**by: CAAS Ltd.**

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## List of Abbreviations

<b>AA</b>	Appropriate Assessment
<b>CSO</b>	Central Statistics Office
<b>DAHG</b>	Department of Arts, Heritage and the Gaeltacht
<b>DCENR</b>	Department of Communications, Energy and Natural Resources
<b>DEHLG</b>	Department of the Environment, Heritage and Local Government
<b>DEHG</b>	Department of the Environment and Local Government
<b>EIA</b>	Environmental Impact Assessment
<b>EPA</b>	Environmental Protection Agency
<b>EU</b>	European Union
<b>GSI</b>	Geological Survey of Ireland
<b>NHA</b>	Natural Heritage Area
<b>NIAH</b>	National Inventory of Architectural Heritage
<b>NSS</b>	National Spatial Strategy
<b>RBD</b>	River Basin District
<b>RMP</b>	Record of Monuments and Places
<b>RPS</b>	Record of Protected Structures
<b>RPGs</b>	Regional Planning Guidelines
<b>SAC</b>	Special Area of Conservation
<b>SDZ</b>	Strategic Development Zone
<b>SEA</b>	Strategic Environmental Assessment
<b>SEO</b>	Strategic Environmental Objective
<b>SI No.</b>	Statutory Instrument Number
<b>SPA</b>	Special Protection Area
<b>WFD</b>	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 or project, alone and in combination with other strategic actions and projects, on the integrity of a Natura 2000 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.

## Biotic Index Values (Q Values)

The Biotic Index Values, or Q values, are assigned to rivers in accordance with biological monitoring of surface waters - low Q ratings, as low as Q1, are indicative of low biodiversity and polluted waters, and high Q ratings, as high as Q5, are indicative of high biodiversity and unpolluted waters. Good status as defined by the Water Framework Directive equates to approximately Q4 in the national scheme of biological classification of rivers as set out by the Environmental Protection Agency.

## Environmental Problems

Annex I of Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27<sup>th</sup> 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 Act of 2000 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 which 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 which have so far been identified. Any works at or in relation to a recorded monument requires two months' notice to the Department of the Environment, Heritage and Local Government 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 the appropriate bodies.

## 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 Planning Scheme 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 Cherrywood Planning Scheme. It has been undertaken by CAAS Ltd. on behalf of Dún Laoghaire-Rathdown County Council.

The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption of the Planning Scheme. The SEA is carried out in order to comply with the provisions of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended. This report should be read in conjunction with the Planning Scheme.

## 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 which 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 insure 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

27<sup>th</sup> 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 energy.

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 21<sup>st</sup> 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 Planning Scheme and the Planning Authority

Article 11 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended requires that Strategic Environmental Assessment is undertaken for the preparation of Planning Schemes.

The findings of the SEA are expressed in this Environmental Report, earlier versions of which accompanied the Draft Planning Scheme on public display, were submitted to An Bord Pleanála and were altered in order to take account of both recommendations contained in submissions and changes have been made to the Planning Scheme on foot of submissions and on foot of An Bord Pleanála's specified modifications.

Both An Bord Pleanála and Members of the planning authority have taken into account the findings of this Report and other related SEA output during their consideration of the Scheme.

An SEA Statement has been prepared which accompanies the Planning Scheme and summarises, inter alia, how environmental considerations have been integrated into the Scheme.

## Section 2 The Planning Scheme

### 2.1 Legislative Background

Part IX of the Planning and Development Acts 2000-2010 provides that the Government may designate a site or sites as a Strategic Development Zone (SDZ) and specify the types of development which may be established. This designation may be done to facilitate development, which is, in the opinion of the Government, of economic or social importance to the State. The types of development for which a zone may be established include industrial, residential and commercial development, which is of importance in a national context.

This SDZ planning process is detailed in Sections 165 to 171 of the Planning and Development Act 2000-2010 and is prepared by a Development Agency appointed by the Government. Dún Laoghaire Rathdown County Council was identified as the development agency for the purposes of preparing the Planning Scheme for Cherrywood.

Where land is designated as an SDZ by Government Order, in this case on the 25<sup>th</sup> of May 2010, the development agency must prepare a Draft Planning Scheme in respect of all or any part of the site within 2 years of the Government Order.

### 2.2 Contents of the Planning Scheme

The Planning Scheme document has been prepared by Dún Laoghaire Rathdown County Council and comprises of a written document with maps, and extensive appendices containing a Strategic Environmental Assessment, Studies and Reports and the Cherrywood Biodiversity Plan.

The structure of the Planning Scheme is as follows:

1. Introduction, Context, Strategy and Purpose.

This chapter explains what an SDZ is, the background to the SDZ designation, and the policy context for the Planning Scheme. It sets out the National, Regional and Local Policy context as appropriate. With this foundation the Chapter sets out the vision, principles, and themes for Cherrywood, which underpin all the Chapters and aspects of the Planning Scheme.

2. Proposed Development in Cherrywood

This chapter sets out the nature, type and extent of development in the Planning Scheme area, and establishes a framework for the built form in Cherrywood.

3. Built and Cultural Heritage

This chapter details the broad range of protected structures and the archaeology in Cherrywood, and establishes guidelines for their protection and future development.

4. Physical Infrastructure

This chapter identifies the existing infrastructure in the area and sets out the services required to provide for the capacity of development in Cherrywood. It also sets out a sustainable multi modal transport strategy for the plan area to provide for sustainable travel to, from and within Cherrywood, and establishes policies on energy, telecoms, utilities and waste management.

5. Green Infrastructure and Biodiversity

This chapter identifies the existing green infrastructure in Cherrywood and details the scheme's open space strategy, a green linkages plan, and biodiversity actions.

6. Development Areas – type, extent and overall design

This chapter divides the plan into 8 development areas and sets out the extent, scale, nature and form of each of these development areas. The physical infrastructure to be delivered with the development of each area is also stipulated.

7. Phasing of Development

This chapter sets out the sequencing of Development Areas and the phasing of development and services within Cherrywood.

## 2.3 Main Objectives of the Planning Scheme

### 2.3.1 Vision

The overarching vision for the Planning Scheme is:

- To create a sustainable place with a rich urban diversity, which respects its historical and natural setting while also facilitating innovation and creativity.
- To spatially develop a cohesive and diverse community with a strong identity and environmental integrity.
- To contribute to the economic growth of the County through the development of a vibrant economic community anchored around the Town Centre.
- To provide a safe and friendly environment where people can live, work and play within an envelope of sustainable, integrated transport with a primacy of soft modes of transport throughout.

### 2.3.2 Principles

The main principles guiding the future development of Cherrywood are:

- To promote the growth of Cherrywood which enhances and supports balanced sustainable growth in the Greater Dublin Region and does not undermine the vitality and viability of

other areas in the County and the Region.

- To create the framework for the development of a sustainable town and three villages with a supporting range of uses for the resident, working and visiting population.
- To link the area to its immediate hinterland and adjoining communities by restoring connectivity that has been severed by major roads.
- To work with the landscape by designing a form that is specific to Cherrywood, with a network of places each responding to its setting, landscape and climate.
- To balance the employment, commercial and retail base of Cherrywood with the future residential growth of the plan area.
- To create an environment that promotes / facilitates internal pedestrian and cycle movement meeting the requirements of Smarter Travel.

### 2.3.3 Purpose

In line with National, Regional and County Guidelines and Plans the purpose of the Planning Scheme is to set out the form, scale and nature of development and supporting infrastructure that will enable the delivery of smart growth that is economically sound, environmentally friendly, and supportive of healthy communities – growth that enhances quality of life.

Central to the Scheme will be Cherrywood Town Centre. This has been designated as a District Centre under the Retail Strategy for the Greater Dublin Area 2008-2016, providing up to 35,000sq.m of net lettable retail floorspace. There will also be three Village Centres: Priorsland, Tully Village and Lehaunstown, each with an appropriate range and scale of retail, commercial, community and other facilities.

The proposed infrastructure within Cherrywood has the potential to accommodate a resident population of 20,800 and a working population of 17,500, in higher intensity employment.

## **2.4 Relationship with other relevant Plans and Programmes**

### **2.4.1 Introduction**

The Planning Scheme sits within a hierarchy of land use forward planning strategic actions. The Planning Scheme must comply with 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 Planning Scheme.

The following sub-sections reproduce text included in the Planning Scheme concerning other relevant plans and programmes to which the Planning Scheme relates.

### **2.4.2 The National Spatial Strategy 2002-2020**

The focus of the National Spatial Strategy (NSS) 2002-2020 is on fostering a closer match between where people live with where they work. The NSS established a detailed sustainable planning framework for strategic spatial planning to ensure development is targeted at the most appropriate locations. The NSS places emphasis on the creation of high quality living environments through urban design and the integration of social and community amenities.

### **2.4.3 Smarter Travel – A Sustainable Transport Future (2009)**

“Smarter Travel” is the Government’s action plan to free towns and cities from traffic congestion, substantially cut CO2 emissions, encourage car based commuters to leave their cars at home, and encourage a shift toward walking, cycling and greater public transport usage.

### **2.4.4 Greater Dublin Area Transport Strategy – 2030 vision**

This document sets out the National Transport Authority’s Strategic Transport Plan for the Greater Dublin Area for the period up to 2030. The objective of the transport strategy is to

provide a long-term strategic planning framework for the integrated development of transport infrastructure and services in the GDA. At the heart of this strategy is the requirement that land use planning and transport planning need to be considered together in the overall development of the region.

### **2.4.5 Regional Planning Guidelines for the Greater Dublin Area 2010- 2022**

Ireland is divided into eight regional forward planning regions, Dublin, Midlands, Mid East, Mid-West, South East, South West, West and Border, each with its own regional planning authority composed of Elected Members selected by the constituent local government councils. Regional planning authorities are required, under the Planning and Development (Regional Planning Guidelines) Regulations 2003 (SI No. 175 of 2003), to draw up regional planning guidelines (RPGs), long term strategic planning frameworks, for their relevant region.

Cherrywood is located within the Greater Dublin Region for which the Greater Dublin RPGs have been prepared by the Dublin and Mid-East Regional Authorities.

The settlement strategy from the Greater Dublin RPGs identifies Cherrywood as a ‘Large Growth Town II’. It is the only one within the M50 corridor in the Dublin area, and is described as economically vibrant with high quality transport links to larger towns/city. It is envisaged that Cherrywood will ultimately accommodate in the region of 15,000-30,000 persons, which is stated as a range suitable to the scale of the town. The RPGs further state that Cherrywood should form part of a Core Economic Area consisting of Bray/Cherrywood/ Greystones.

### **2.4.6 Retail Strategy for the Greater Dublin Area 2008-2016**

The Strategy outlines a retail hierarchy for the various towns within the greater Dublin area (Metropolitan and Hinterland areas) and categorises Cherrywood as a ‘Level 3 Town’, within the Metropolitan area. It proposes to facilitate and promote the development of

Cherrywood Town Centre on a phased basis as a large scale urban district centre located within a high density environment subject to the provision of light rail links, a sufficient resident population exceeding 10,000 and the preparation of an approved urban design master plan.

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 good status by 2015.

### **2.4.7 County Development Plan 2010-2016**

The existing Dún Laoghaire-Rathdown County Development Plan 2010-2016 states that Cherrywood SDZ is the most significant and strategic development opportunity available to Dún Laoghaire-Rathdown to realise the County's aspirations and requirements for additional enterprise floorspace and residential units in one of its most sustainable locations.

### **2.4.8 Strategic Development Zone Order 2010**

The Government Order designating Cherrywood as a site for an SDZ, S.I. No. 535 of 2010, states that Cherrywood SDZ may accommodate:

'residential development and the provision of schools and other educational facilities, commercial activities, including office, hotel, leisure and retail facilities, rail infrastructure, emergency services and the provision of community facilities as referred to in Part III of the First Schedule to the Act, including health and childcare services'.

### **2.4.9 Environmental Protection Objectives**

The Planning Scheme is subject to a number of high level environmental protection policies and objectives with which it must comply, including those which have been identified as Strategic Environmental Objectives in Section 5.

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

## Section 3 SEA Methodology

### 3.1 Introduction to the Iterative Approach

This section details how the SEA has been undertaken alongside the preparation of the Planning Scheme. Figure 3.1 lays out the main stages in the Planning Scheme/SEA preparation process.

The Planning Scheme (prepared by Dún Laoghaire-Rathdown County Council), the SEA Environmental Report (prepared by CAAS) and the various other supporting documents prepared on behalf of the Council were prepared in an iterative manner whereby

multiple revisions of each document were prepared, each informing subsequent iterations of the others. This iterative approach was most apparent during the preparation of the Scheme's Primary Land Uses Map (see Section 9.3).

To facilitate the iterative approach in the Planning Scheme process, numerous meetings were held between combinations of CAAS, Dún Laoghaire-Rathdown County Council, the Council's other consultants, the Environmental Protection Agency (EPA) and the Office of Public Works.

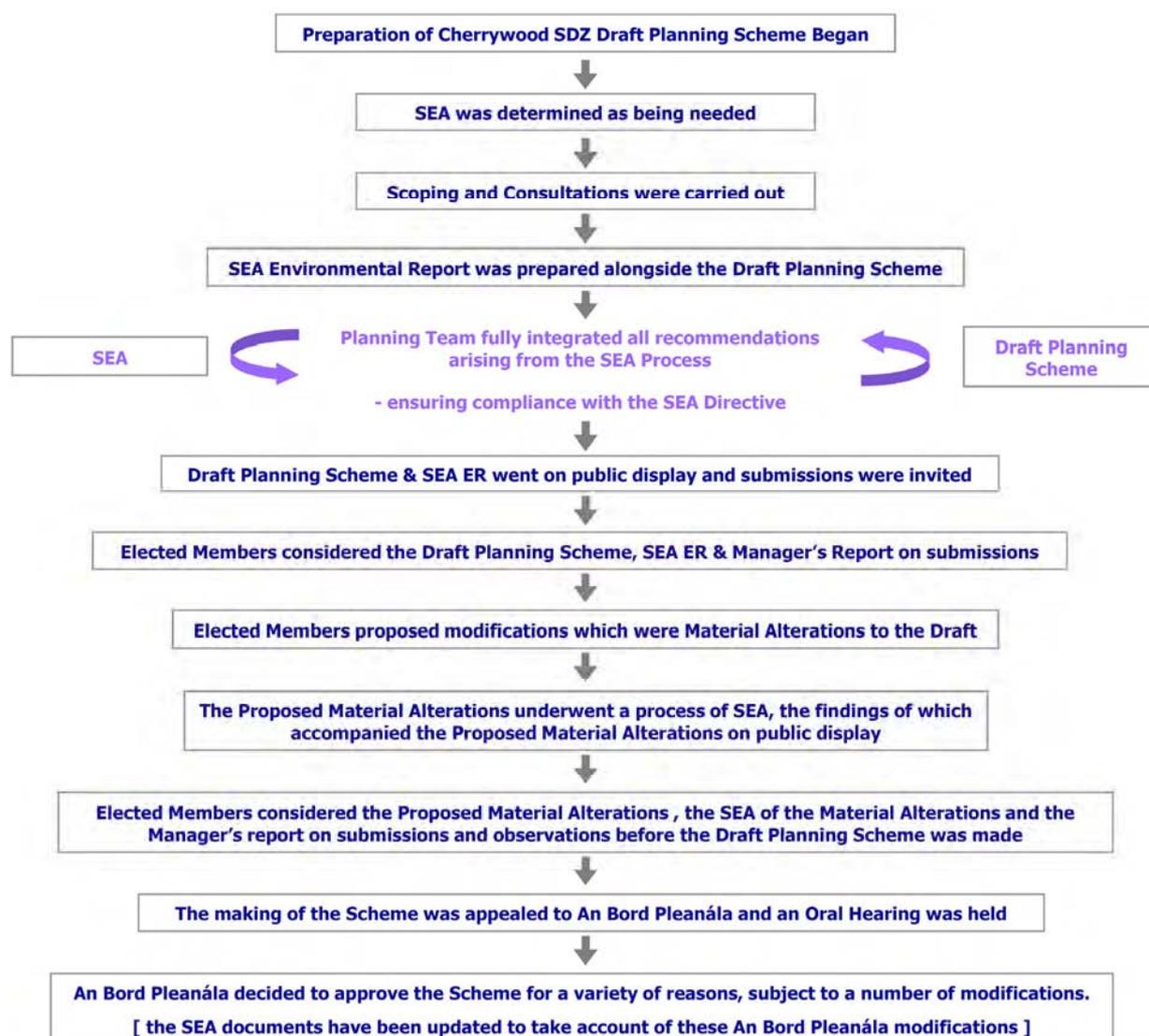


Figure 3.1 Planning Scheme and SEA Stages

## 3.2 Appropriate Assessment and Flood Risk Assessment

An Appropriate Assessment (AA) and Flood Risk Assessment (FRA) have both been undertaken alongside the Planning Scheme.

The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The requirement for FRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009). The AA Screening process concluded that no Natura 2000 Sites are deemed to be at risk of likely significant effects of implementing the Planning Scheme.

A detailed flood risk assessment was carried out on all significant watercourses in the SDZ which identified out of bank flooding, for a flood event greater than the 1 in 100 year flood event, in six general locations in the SDZ. The Council identified only one of these floodplain locations where development is being considered, namely in Priorsland. To accord with the Flood Guidelines a more detailed flood risk assessment and management plan<sup>1</sup> was completed for the Priorsland area. The management plan identified measures to manage the flood risk in this area (see also Section 4.6.7).

The preparation of the Planning Scheme, SEA, AA and FRA has taken place concurrently and the findings of the AA and FRA have informed both the Planning Scheme and the SEA.

## 3.3 Scoping

### 3.3.1 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 to be addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping of the SEA - which was undertaken by RPS Consulting - was concurrent with certain

issues being selected for further examination after certain data was obtained. Scoping allowed the SEA to become focused upon key issues, such as those relating to noise, landscaping, hydrogeology, flooding.

Scoping facilitated the selection of issues relevant to the environmental components which are specified under the SEA Directive - biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, and landscape.

As the Planning Scheme 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.

### 3.3.2 Scoping Notices

As environmental authorities identified under the SEA Regulations, the EPA, Department of the Environment, Heritage and Local Government (DEHLG) and the Department of Communications, Energy and Natural Resources (DCENR)<sup>2</sup> 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.

The Council also consulted with the Office of Public Works with regard to surface water and flooding issues.

### 3.3.3 Scoping Responses

Written submissions on the scope of the SEA were received from each of the environmental authorities and these were taken into account during the formulation of the scope of the SEA.

The submission from the EPA dated 5<sup>th</sup> March 2011 included information on SEA process guidance and information on the integration of environmental considerations in land use plans. Also included was an 'SEA Pack' which included information on various SEA related topics.

<sup>1</sup> RPS for Dún Laoghaire-Rathdown County Council (2012) *Flood Risk Assessment and Management Study at Priorsland, Carrickmines*

<sup>2</sup> Formally the Department of Communications, Marine and Natural Resources

The submission from the DEHLG dated 5<sup>th</sup> April 2011 included information on natural heritage and archaeological heritage.

The submission from the DCENR dated 11<sup>th</sup> April 2011 comprised a copy of comments made by Inland Fisheries Ireland at an earlier date on the scope of the Appropriate Assessment of the Planning Scheme. These comments related to topics including fisheries, drainage and waste water treatment.

In addition, on 16<sup>th</sup> November 2011 an SEA meeting was held between the EPA, Dún Laoghaire-Rathdown County Council, CAAS, and Scott Cawley (AA consultants) at which the EPA made a number of suggestions with regard to the undertaking of the SEA.

The information provided in the written responses to the SEA scoping notice by environmental authorities and the information provided at the SEA meeting with the EPA was taken into account during the preparation of the Environmental Report.

### **3.4 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 Planning Scheme and the alternatives and the subsequent monitoring of the effects of implementing the provisions of the Planning Scheme as adopted.

### **3.5 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, four alternative scenarios for accommodating future growth at the SDZ lands in Cherrywood are examined.

## **3.6 The SEA Environmental Report**

In this Environmental Report, the likely environmental effects of the Planning Scheme 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 decisions regarding how subsidiary regional developments will be conceived and delivered.

Mitigation measures to prevent or reduce significant adverse effects posed by the Planning Scheme are identified in Section 9 - these have been integrated into the Scheme.

The Environmental Report was updated in order to take account of:

- recommendations contained in submissions;
- changes to the Draft Planning Scheme which were made on foot of submissions; and
- changes to the Planning Scheme which were made in response to An Bord Pleanála's specified modifications.

The Environmental Report is required to contain the information specified in Schedule 2 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004) (see Table 3.1).

## **3.7 The SEA Statement**

An SEA Statement has been prepared which includes information on:

- How environmental considerations have been integrated into the Planning Scheme, highlighting the main changes to the Planning Scheme which resulted from the SEA process;
- How the 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 Planning Scheme in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Planning Scheme was selected; and
- The measures decided upon to monitor the significant environmental effects of implementation of the Planning Scheme.

## **3.8 Difficulties Encountered**

### **3.8.1 Centralised Data Source**

The lack of a centralised data source that could make all environmental baseline data for the Planning Scheme area both readily available and in a consistent format posed a challenge to the SEA process. This difficulty is one which has been encountered while undertaking SEAs at local authorities across the country and was overcome by investing time in the collection of data from various sources and through the use of Geographical Information Systems.

**Table 3.1 Checklist of Information included in this Environmental Report**

<b>Information Required to be included in the Environmental Report</b>	<b>Corresponding Section of this Report</b>
(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 protected 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 3, 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 (Appendix I)
(K) Interrelationships between each environmental topic	Addressed as it arises within each Section

## Section 4 Environmental Baseline

### 4.1 Introduction<sup>3</sup>

The SEA Directive requires that the information on the baseline environment is focused upon the relevant aspects of the environmental characteristics of areas likely to be significantly affected and the likely evolution of the current environment in the absence of the Planning Scheme. Being consistent with the strategic provisions of the Planning Scheme, this section provides a strategic description of environmental components which have the greatest potential to be affected by implementation of the Planning Scheme.

Article 5 of the SEA Directive states that the report shall include the information that may *reasonably* be required taking into account:

- Current knowledge and methods of assessment;
- The contents and level of detail in the plan or programme and its stage in the decision-making process; and
- The extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.

What this means in practice is, inter alia, with regard to Planning Schemes, that SEA involves collating currently available, relevant environmental data; *it does not require major new research*. Where data deficiencies or gaps exist, this should be acknowledged in the report.

Notwithstanding this, and having regard to the detail provided in the Planning Scheme and issues which were identified during the SEA scoping process, Dún Laoghaire-Rathdown County Council made resources available to facilitate the undertaking of the following studies which have informed the baseline description provided in this section:

<sup>3</sup> The Planning Scheme boundary shown on maps in this section is that which was placed on public display as part of the Draft Planning Scheme. This boundary was slightly amended in the south-western corner before the Scheme was adopted. The adopted Planning Scheme boundary is shown on Figure 9.1 in Section 9 of this report.

- Baseline Hydrogeological Assessment<sup>4</sup>;
- Baseline Noise Assessment<sup>5</sup>;
- Biodiversity Plan<sup>6</sup>;
- Appropriate Assessment<sup>7</sup>;
- Flood Study for lands at Priorsland<sup>8</sup>;
- Baseline Visual Impact Assessment, undertaken as part of this SEA; and
- Archaeological Studies<sup>9</sup>.

### 4.2 Likely Evolution of the Environment in the Absence of the Planning Scheme

In the absence of the Planning Scheme the environment would evolve under the regime of the existing County Development Plan 2010-2016 zonings as detailed under Section 7.3.2 of this report.

<sup>4</sup> RPS for Dún Laoghaire-Rathdown County Council (2011) *Cherrywood Hydrology - Phase1 Hydrogeology Assessment of the Cherrywood SDZ*

<sup>5</sup> AWN Consulting for CAAS Ltd. (2011) *Cherrywood SDZ Noise Report*

<sup>6</sup> Scott Cawley for Dún Laoghaire-Rathdown County Council (2012) *Biodiversity Plan*

<sup>7</sup> Scott Cawley for Dún Laoghaire-Rathdown County Council (2012) *Appropriate Assessment for the Cherrywood Strategic Development Zone Planning Scheme*

<sup>8</sup> RPS for Dún Laoghaire-Rathdown County Council (2011) *Flood Risk Assessment and Management Study at Priorsland, Carrickmines*

<sup>9</sup> Including Margaret Gowen & Co. Ltd (2010) *Cherrywood Strategic Development Zone Archaeological Study For RMP DU026-127, Cherrywood, Co. Dublin*

## 4.3 Biodiversity and Flora and Fauna<sup>10</sup>

### 4.3.1 Introduction

The Planning Scheme is accompanied by and has been informed by a Biodiversity Plan which provides a summary of the strategy behind the design of the Planning Scheme in terms of the retention, protection and management of ecological resources.

### 4.3.2 European and National Designations

The context of the Planning Scheme area and Special Protection Areas (SPAs<sup>11</sup>) and candidate Special Areas of Conservation (cSACs<sup>12</sup>) within Dún Laoghaire-Rathdown County and the wider Region is shown on Figure 4.1. There are no SACs or SPAs located within or adjacent to the Planning Scheme area.

Figure 4.2 shows that there are no Natural Heritage Areas (NHAs) or proposed NHAs located within the Planning Scheme area. There is one pNHA located immediately to the east of the Planning Scheme area - Loughlinstown Woods pNHA Site Code 001211 - and one located less than 1km to the west of

<sup>10</sup> Text in Section 4.3 is taken from *Biodiversity Plan for Cherrywood SDZ* (Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012). Further detail is provided in this Biodiversity Plan which accompanies the Planning Scheme.

<sup>11</sup> Special Protection Areas (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.

<sup>12</sup> Special Areas of Conservation (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) - referred to as the Habitats Directive - due to their conservation value for habitats and species of importance in the European Union. Candidate Special Areas of Conservation (cSACs) have been selected for protection under the Habitats Directive due to their conservation value for habitats and species of importance in the European Union. The sites are candidate sites because they are currently under consideration by the Commission of the European Union.

the Planning Scheme area - Dingle Glen pNHA Site Code 001207.

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 were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

### 4.3.3 Other Habitats and Ecological Networks

The Planning Scheme area supports a range of grassland, woodland and wetland habitats that require specific management to maintain their biodiversity. Habitat value ranges from locally-important to County-important scales. The following habitats are identified by the Biodiversity Plan<sup>13</sup> as occurring within the Planning Scheme area:

- *Eutrophic lake;*
- *Other artificial lakes and ponds;*
- *Eroding upland rivers;*
- *Depositing lowland rivers;*
- *Drainage ditches;*
- *Calcareous Springs;*
- *Reed and Large Sedge Swamps;*
- *Tall-herb swamp;*
- *Improved agricultural grassland;*
- *Amenity Grassland;*
- *Dry calcareous and neutral grassland;*
- *Dry meadows and Grassy verges;*
- *Wet grassland;*
- *Dense bracken;*
- *(Mixed) Broadleaved Woodland;*
- *Mixed Broadleaved/Conifer woodland;*
- *Wet Pedunculate oak-ash woodland;*
- *(Mixed) Conifer plantation;*
- *Scattered Trees and Parkland;*
- *Scrub;*
- *Immature Woodland;*
- *Hedgerows;*
- *Treelines;*
- *Exposed Siliceous Rock;*
- *Spoil and bare ground;*
- *Recolonising Bare Ground;*
- *Arable Crops ;*

<sup>13</sup> Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012

- *WS3 ornamental/non-native shrubs + BC4 flower beds and borders + BL3 building and artificial surfaces;*
- *Stonewalls and other stonework and*
- *Other Built land.*

Habitats within the SDZ are mapped on Figure 4.3 and Figure 4.4. The most ecologically important habitats include:

- Woody vegetation habitats;
- Hedgerows and tree lines;
- The Loughlinstown River and the Carrickmines Stream which are shown on Figure 4.10.
- Tuffa Spring Areas, as detailed under Section 4.3.4.

These habitats include various species and function as an ecological network. Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and stepping stones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna (ecological corridors are mapped on Figure 4.5). The Directive requires that ecological connectivity and areas of ecological value outside the Natura 2000 network of designated ecological sites are maintained and it recognises the need for the management of these areas through land use planning and development policies. Ecological networks are important in connecting areas of local biodiversity with each other and with nearby designated sites so as to prevent islands of habitat from being isolated entities. Ecological networks are composed of linear features, such as treelines, hedgerows, rivers and streams, and the aforementioned roadside green areas, which provide corridors or stepping stones for wildlife species moving within their normal range. They are particularly important for mammals, especially for bats and small birds.

#### 4.3.4 Tuffa Springs

The *Cherrywood Hydrology - Phase 1 Hydrogeology Assessment of the Cherrywood SDZ*<sup>14</sup> and the *Biodiversity Plan for Cherrywood SDZ*<sup>15</sup> identify a number of tuffa spring formations<sup>16</sup>.

<sup>14</sup> RPS for Dún Laoghaire-Rathdown County Council (2011)

<sup>15</sup> Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012

<sup>16</sup> Tuffa is a deposit of calcium carbonate that has deposited at the source of a spring

These formations vary from: immature recently formed tuffa as the result of recent earthworks exposing shallow perched groundwater tables and spring/seepage along new embankments; to mature, high quality tuffa springs with active groundwater flow and calcareous carbonate precipitation with associated plant communities; to lower quality tuffa spring formations located along small drainage channels (with associated plant communities less dominant).

The Hydrology Assessment identified two separate protection zones encompassing two tuffa spring formations (see Figure 4.6). The larger of these zones encompasses the only maturely developed tuffa formations within the limits of the Planning Scheme area. The springs in this area were identified by the Biodiversity Plan as an example of the Annex I habitat 'Petrifying springs with Tuffa formation' and the site was regarded to be of County-level importance<sup>17</sup>. The smaller of these zones encompasses more immature tuffa formations that comprise an ecologically sensitive area within the Planning Scheme area.

#### 4.3.5 Species

Notable species identified by the Biodiversity Plan<sup>18</sup> include:

- Badgers are protected by the Wildlife Acts (1976 as amended in 2000) the setts that were recorded. Badger setts (occupied or unoccupied) are also protected. Various sets were recorded within the Planning Scheme area.
- Otters are protected by the Wildlife Acts and the EC Habitats Directive where they are listed under Annex II and IV. Otter holts are also protected. Evidence for otters was recorded in both the Carrickmines River valley and along Bride's Glen.

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emergence. Groundwater percolating through the soil and aquifer material can dissolve calcium from the parent material and precipitate calcium carbonate where groundwater emerges at the spring source. Tuffa springs are supported by a hydrological cycle whereby rainfall infiltrates the subsoil and discharges at spring emergences.

<sup>17</sup> Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012

<sup>18</sup> Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012

- Bats are protected by the Wildlife Acts and the EC Habitats Directive where they are listed under Annex II. Bat roosts and a diverse and abundant bat population using discrete areas for feeding were identified within the Planning Scheme area.

#### **4.3.6 Existing Problems**

New residential, commercial and transportation developments and site preparation works, including those in recent years have resulted in loss of biodiversity and flora and fauna across the site however legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

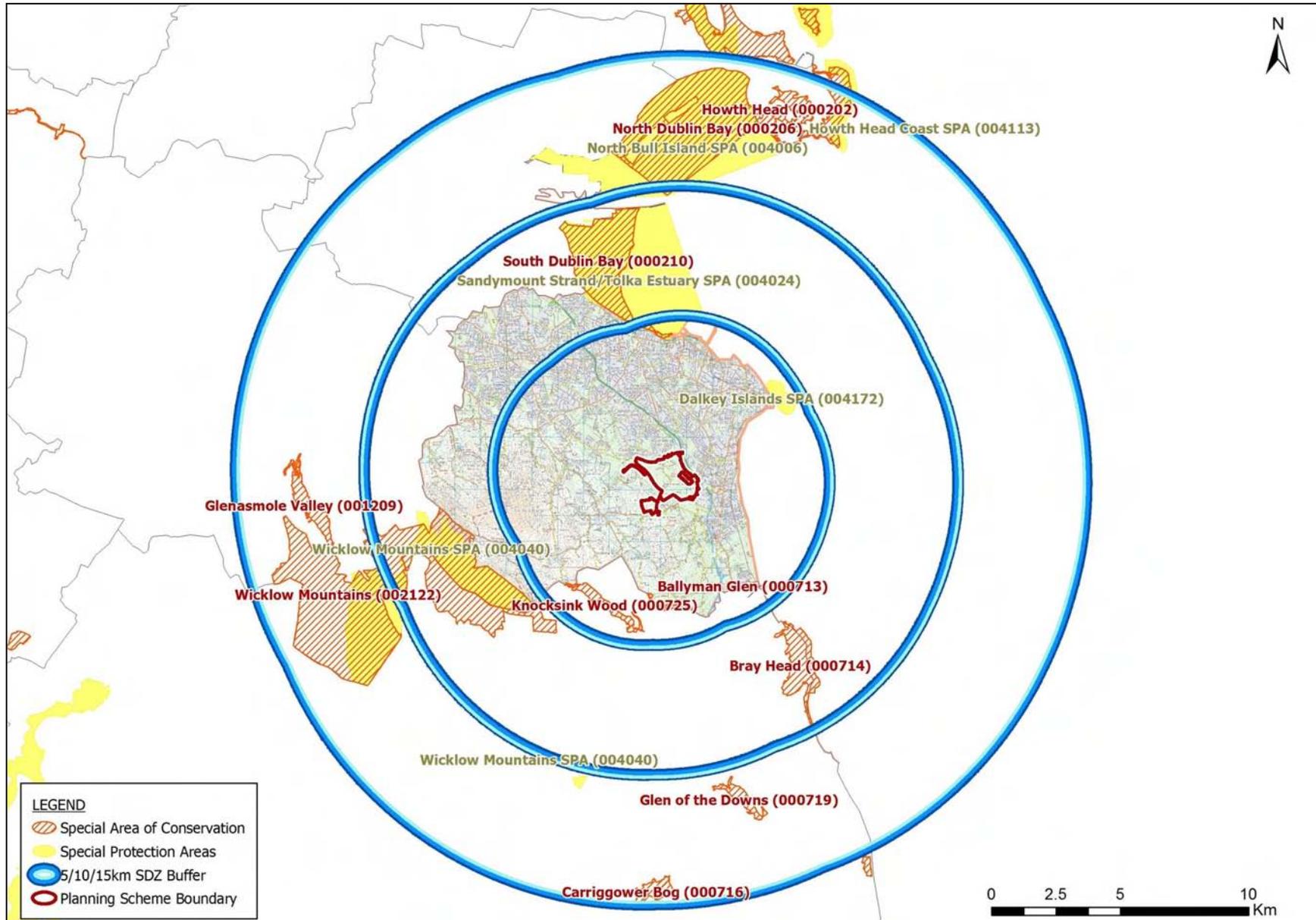
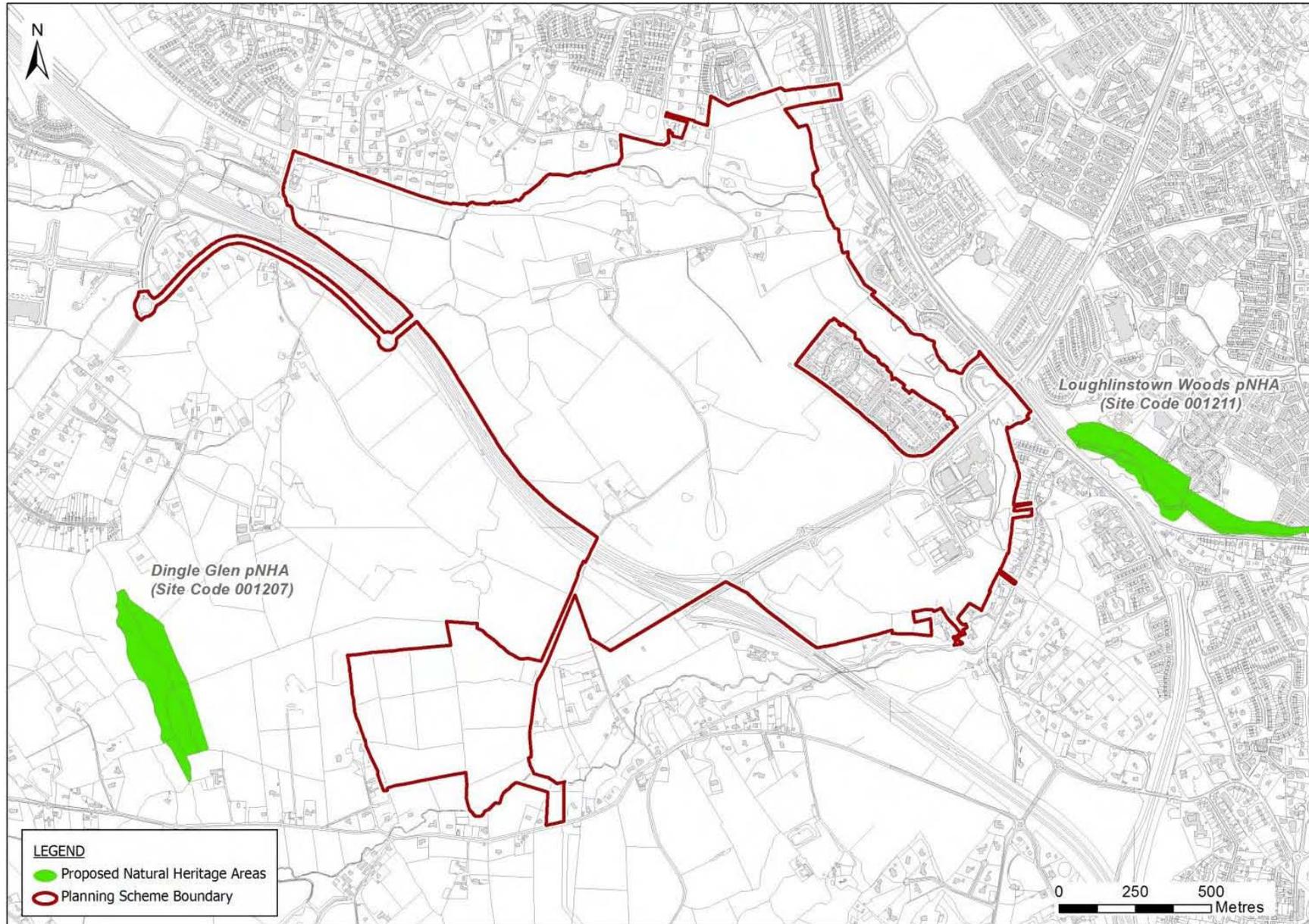
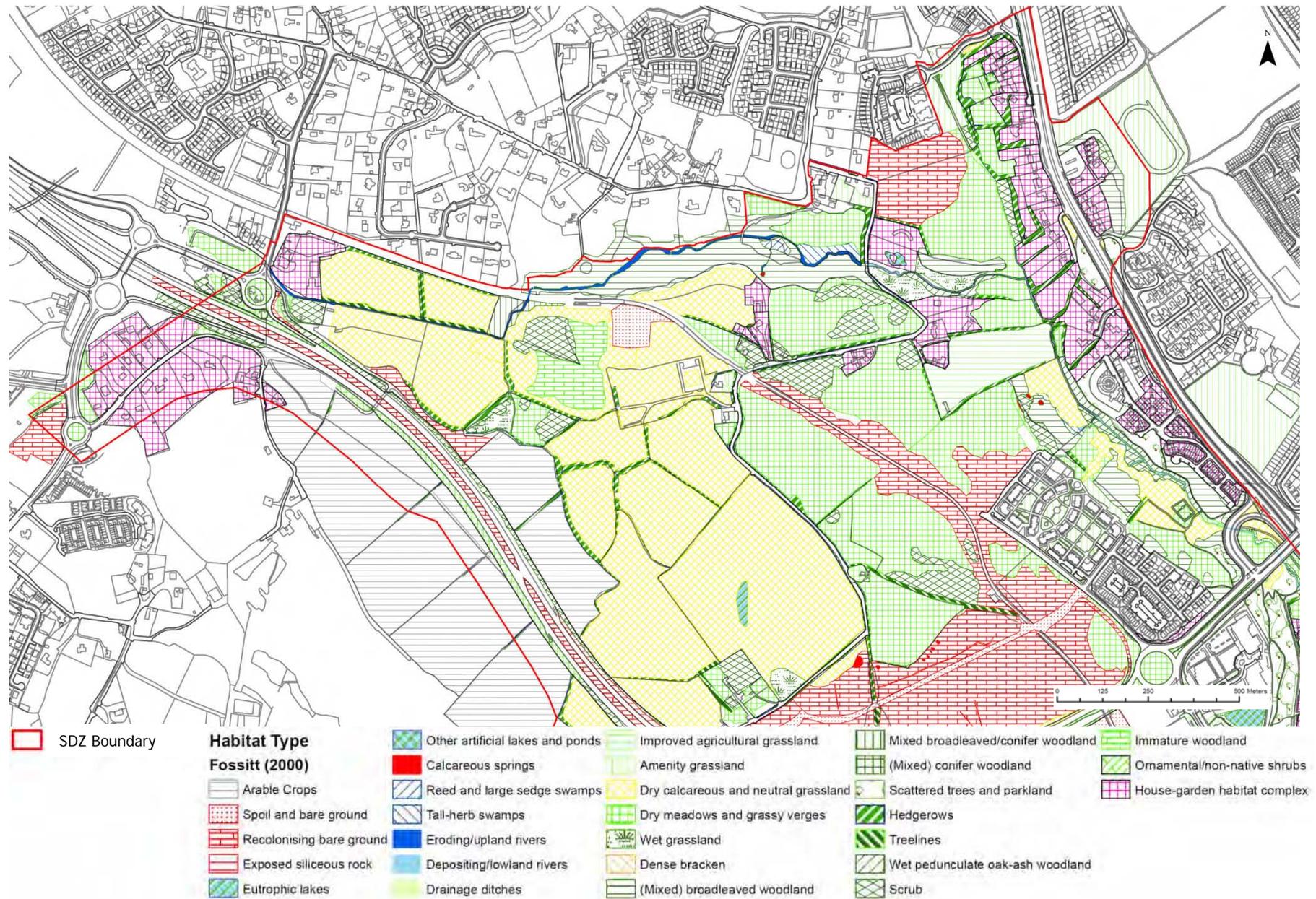


Figure 4.1 Natura 2000 Sites with 5, 10 and 15km of the Planning Scheme area

Source: NPWS (datasets downloaded Nov. 2011)



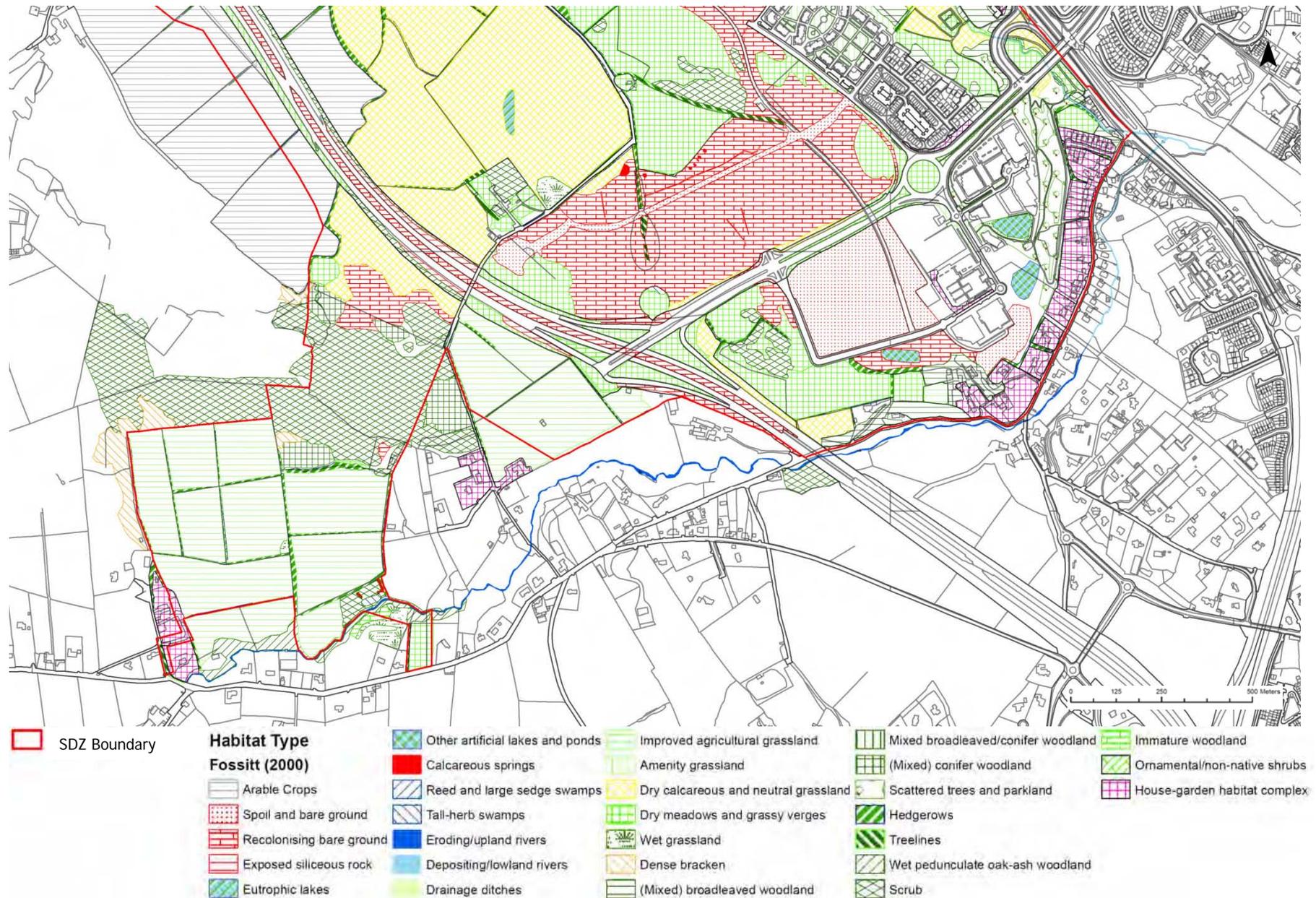
**Figure 4.2 Proposed Natural Heritage Areas**  
Source: NPWS (datasets downloaded Nov. 2011)



**Figure 4.3 Habitats in the north of the SDZ area**

Source: Biodiversity Plan for Cherrywood SDZ (Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012)

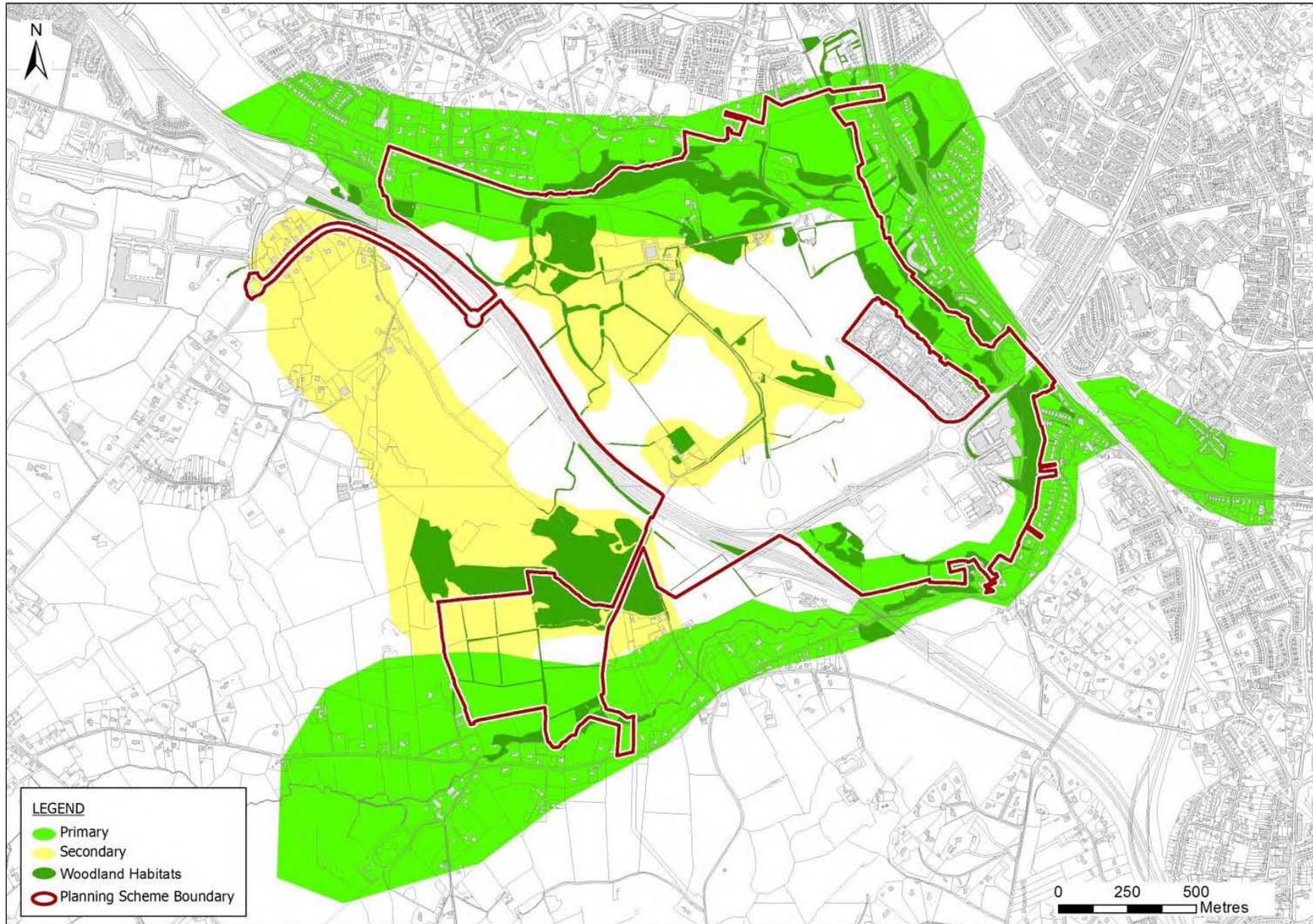
CAAS Ltd. for Dún Laoghaire-Rathdown County Council



**Figure 4.4 Habitats in the south of the SDZ area**

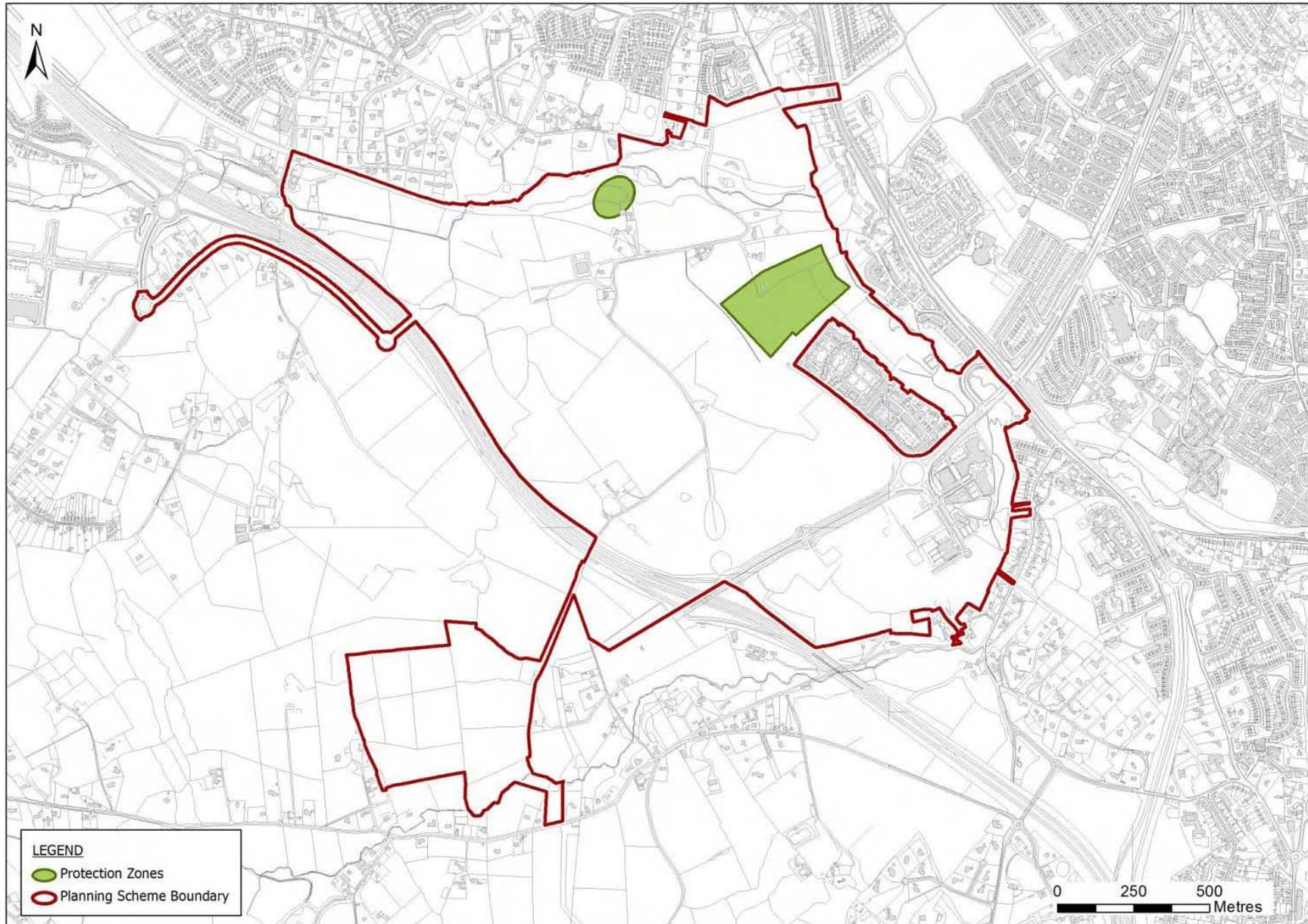
Source: Biodiversity Plan for Cherrywood SDZ (Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012)

CAAS Ltd. for Dún Laoghaire-Rathdown County Council



**Figure 4.5 Ecological Corridors**

Source: Biodiversity Plan for Cherrywood SDZ (Scott Cawley for Dún Laoghaire-Rathdown County Council, 2012)



**Figure 4.6 Tuffa Spring Protection Zones**

Source: RPS for Dún Laoghaire-Rathdown County Council (2011)

## **4.4 Population and Human Health**

### **4.4.1 Population**

The SDZ comprises 361 hectares, a large proportion of which is currently unoccupied/undeveloped as indicated by the aerial photograph of the area (see Figure 4.7).

It is estimated that the current residential population of Cherrywood is approximately 1,550 persons<sup>19</sup>. This population resides mainly in the eastern fringe of the SDZ. In addition to the residential there is an additional employment population. The main existing employment area within the Cherrywood Planning Scheme area is known as the Cherrywood Science and Technology Park. According to the 2006 Census there were c. 2159 people employed in the Cherrywood Science and Technology Park.

### **4.4.2 Human Health**

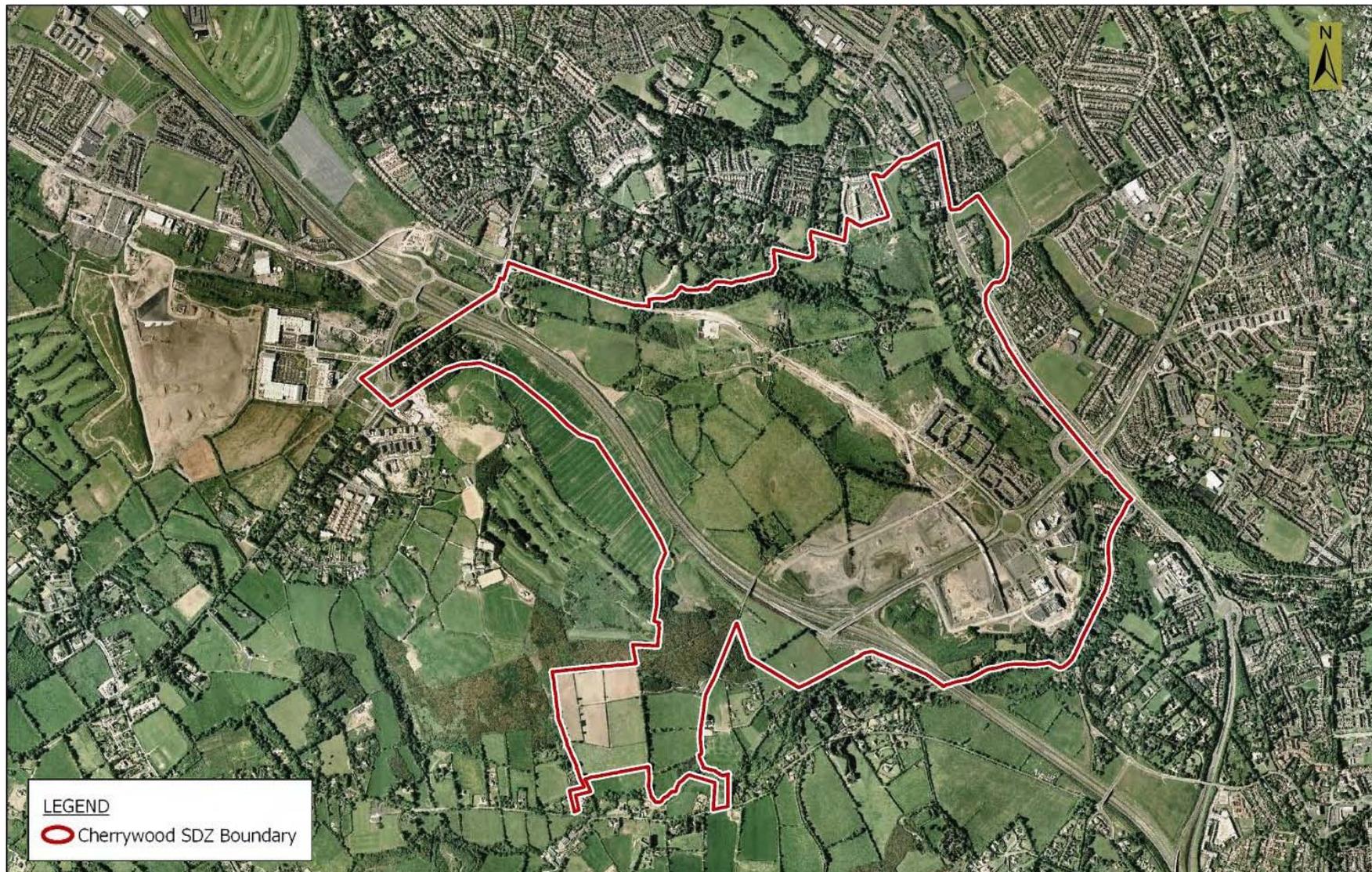
Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances 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 Planning Scheme.

### **4.4.3 Existing Problems**

Legislative objectives governing population and human health were not identified as being conflicted with.

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<sup>19</sup> Based on 2.5 persons per unit



**Figure 4.7 Aerial Photo of the SDZ area**

Source: Dún Laoghaire-Rathdown County Council (2011)

## 4.5 Soil<sup>20</sup>

### 4.5.1 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 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.

### 4.5.2 Soil Types

Soil types, as classified by Teagasc in co-operation with the Forest Service, EPA and GSI<sup>21</sup>, are mapped on Figure 4.8. The most common soil type in the Planning Scheme area is identified as being 'deep drained mineral (acidic parent material)' soils. Other soils include 'mineral aluvium' which are found along areas including the reaches of the Loughlinstown River and the Carrickmines Stream, 'deep well drained mineral (basic parent material)' soils in the north east of the site and two types of shallow soils that are found in areas generally to the west of the M50.

### 4.5.3 Soil Sealing

Figure 4.9 maps 'soil sealing' in Cherrywood, where the soil surface has been covered with impervious materials as a result of development and infrastructure construction or has changed in nature leading to impermeability, as a result of, for example, compaction. The ecological and infiltration functions of sealed areas are impaired or prevented while surrounding soils may be influenced by change in water flow patterns or the fragmentation of habitats.

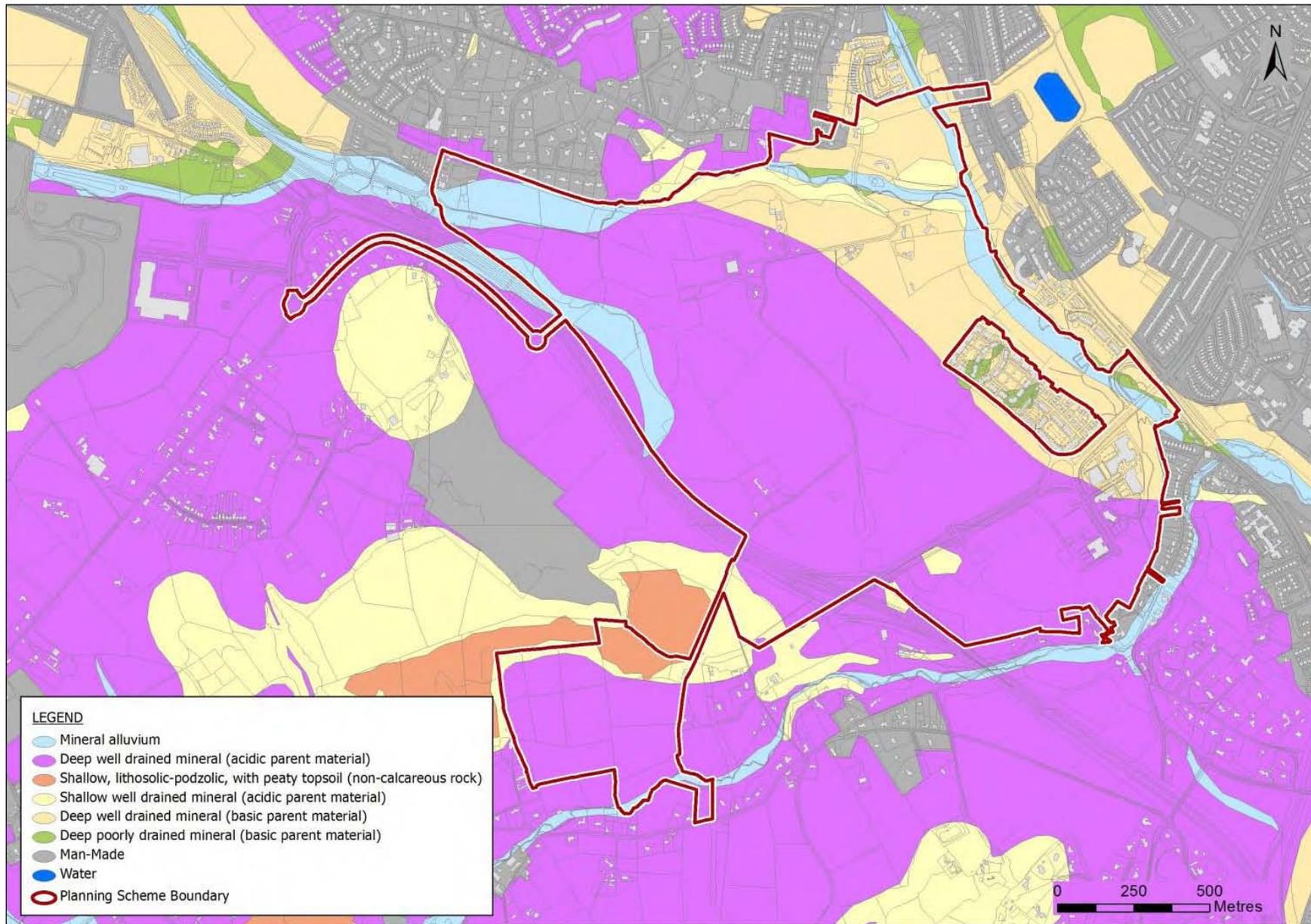
Most of the soils in the Planning Scheme area have not been built upon or sealed off.

### 4.5.4 Existing Problems

Article 5 of the proposed Soil Directive states that, for the purposes of preserving the various functions of soil; sealing, the development of artificial surfaces on top of soil resources, should be limited. The proposed Directive suggests that this may be achieved through rehabilitating brownfield sites, thus reducing the depletion of greenfield sites. The proposed Directive also states soil should be used in a sustainable manner which preserves its capacity to deliver ecological, economic and social services, while maintaining its functions so that future generations can meet their needs. New residential, commercial and transportation developments and site preparation works, including those in recent years, have resulted in an extent of soil being sealed off across the site.

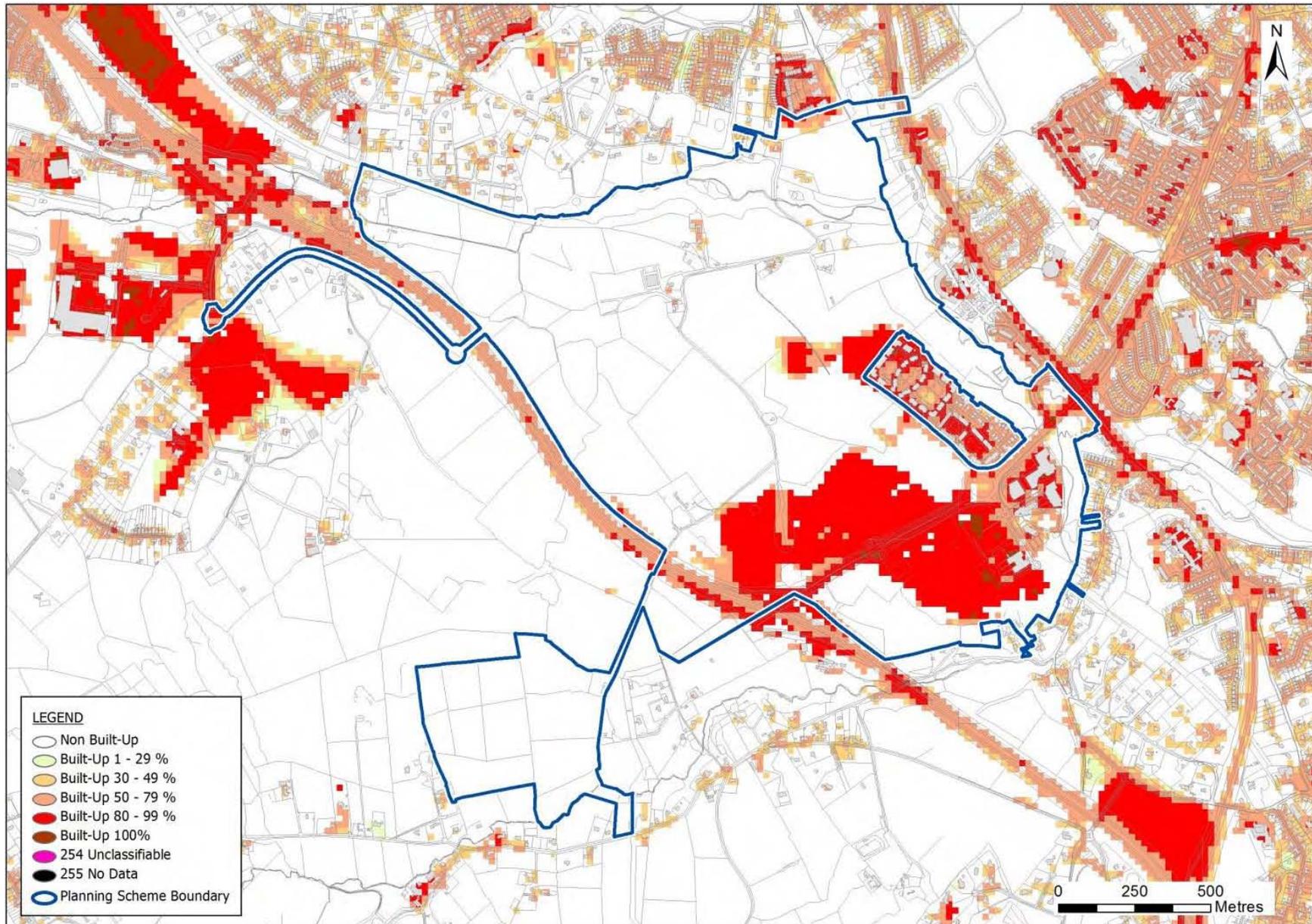
<sup>20</sup> See Section 4.3.4 for detail on Tuffa Springs

<sup>21</sup> Teagasc, GSI, Forest Service & EPA (2006) *Soils and Subsoils Class* Dublin: DEHLG



**Figure 4.8 Soil Types**

Source: Teagasc in co-operation with the Forest Service, EPA and GSI (2006)



**Figure 4.9 Soil Sealing**

Source: EPA (2009)

## 4.6 Water

### 4.6.1 Potential Pressures on Water Quality

Human activities, if not properly managed, can cause deterioration in water quality. Pressures exerted by human activities include the following:

- sewage and other effluents discharged to waters from point sources, e.g. pipes from treatment plants;
- discharges arising from diffuse or dispersed activities on land;
- abstractions from waters; and,
- structural alterations to water bodies.

A point source pressure has a recognisable and specific location at which pollution may originate. Examples of significant point source pressures include direct discharges from waste water treatment plants, licensed discharges from industrial activities, landfills, contaminated lands (e.g. disused gas works) and mines.

A diffuse source pressure unlike a point source is not restricted to an individual point or location. The source of a diffuse pressure can be quite extensive. Significant examples of diffuse pressures include runoff from forestry and agricultural lands.

Excessive abstractions from surface waters and groundwater for drinking and industrial purposes can create pressures on the ability of a water body to maintain both chemical and ecological status.

Structural alterations such as river straightening; construction of embankments, weirs, dams, port facilities and dredging can create conditions such that a water body is no longer able to support the natural ecology which would have existed prior to such modifications. These pressures are also referred to as morphological pressures.

## 4.6.2 The Water Framework Directive

### 4.6.2.1 Introduction and Requirements

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" by 2015. 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 by 2015.

### 4.6.2.2 River Basin Districts and Water Bodies

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine / coastal areas. The management of water resources will be on these river basin districts. The Cherrywood area falls within the Eastern River Basin District (ERBD).

Within each river basin district - for the purpose of assessment, reporting and management - water has been divided into groundwater, rivers, lakes, estuarine waters and coastal waters which are in turn divided into specific, clearly defined water bodies.

### 4.6.2.3 River Basin Management Plans

The Local Authorities located in the ERBD - including Dún Laoghaire-Rathdown County Council - have prepared a River Basin Management Plan and Programme of Measures. The Plan identifies the status of water bodies within the RBD and provides objectives in order to implement the requirements of the WFD.

## 4.6.3 Surface Water

### 4.6.3.1 Q Values

The northern and eastern fringes of the Planning Scheme lands are traversed by the Carrickmines Stream while the southern fringe of the Planning Scheme lands is traversed by the Loughlinstown River. The Carrickmines

Stream meets with the Loughlinstown River to the immediate east of the Planning Scheme area's south eastern boundary.

The most recent available water quality monitoring data from the EPA (see Figure 4.10) identifies that the Carrickmines River is of poor status (Q3) upstream of the Planning Scheme area and of moderate status (Q3-4) close to the point where it exits the area. The Loughlinstown River was identified as being of good status (Q4) upstream of the Planning Scheme area and of poor status (Q3) downstream of the Planning Scheme area.

#### 4.6.3.2 WFD Surface Water Status

The WFD defines '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, 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'.

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 environmental limit values specified in the Directive.

Figure 4.11 illustrates the status of surface water catchments within and surrounding the Planning Scheme area. The catchment of the Carrickmines Stream - which encompasses the northern part of Planning Scheme area - is identified as being of moderate status while the catchment of the Loughlinstown River - which encompasses the southern part of the Planning Scheme area - is identified as being of good status.

## 4.6.4 Ground Water

### 4.6.4.1 Introduction

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.

### 4.6.4.2 WFD Groundwater Status

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.

Groundwater underlying the Planning Scheme area is classified as being of Good Status. This is mapped on Figure 4.12 below.

### 4.6.4.3 Aquifer Vulnerability and Productivity

The Geological Survey of Ireland (GSI) rates aquifers according to their vulnerability to pollution. Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter underground water. Figure 4.13 shows aquifer vulnerability data for the area.

Across much the Planning Scheme area, only an interim study has taken place and so the vulnerability is classified as *High to Low*. Extreme or Extreme (rock near surface or karst) classifications of vulnerability are found in the valley of the Carrickmines Stream, in the north of the Planning Scheme area and in an area in the south-west of the Planning Scheme area.

The GSI rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. The entire Planning Scheme area has been attributed by the GSI with the rating *Poor Bedrock Aquifers (generally unproductive except for local zones)*.

## 4.6.5 Register of Protected Areas

In addition to risk assessments, the WFD requires that Registers of Protected Areas (RPAs) are compiled for a number 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 drinking 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).

In Ireland, waters intended for human consumption are protected under the Drinking Water Regulations (S.I. 439/2000). The actual protected areas for drinking water are not outlined within these Regulations, so the protected area for drinking waters is represented by the water body from which the water is abstracted, be it groundwater, river or lake. All groundwater underlying the area is listed on the RPA for Drinking Water. The Loughlinstown River is also listed on this RPA.

## 4.6.6 Flooding

### 4.6.6.1 Introduction

Flooding is an environmental phenomenon which, as well as having causing economic and social impacts, could in certain circumstances pose a risk to human health.

### 4.6.6.2 DEHLG Flood Risk Management Guidelines

In November 2009 the DEHLG published *The Planning System and Flood Risk Management Guidelines for Planning Authorities*. These are aimed at ensuring a more consistent, rigorous and systematic approach which will fully incorporate flood risk assessment and

management into the planning system. Planning authorities are required to undertake flood risk identification, assessment and management processes as appropriate when preparing or varying Local Area Plans and when considering applications for planning permission.

## 4.6.7 Flood Risk Assessment in Cherrywood

A detailed flood risk assessment was carried out on all significant watercourses (Carrickmines River, Shanganagh River and Foxrock Stream) in the SDZ prior to the introduction of the Planning System and Flood Risk Management Guidelines for Planning Authorities in November 2009. This assessment identified out of bank flooding, for a flood event greater than the 1 in 100 year flood event, in six general locations in the SDZ. The Planning Authority identified only one of these floodplain locations where development is being considered, namely in Priorsland.

To accord with the new Guidelines a more detailed flood risk assessment and management plan<sup>22</sup> was completed for the Priorsland area, for the more extreme 1 in 1000 year flood event (see Figure 4.14). The management plan identified measures to manage the flood risk in this area. In the other areas where no development is proposed it is not considered, having consulted with the OPW, necessary to carry out further Flood Risk Assessments.

## 4.6.8 Existing Problems

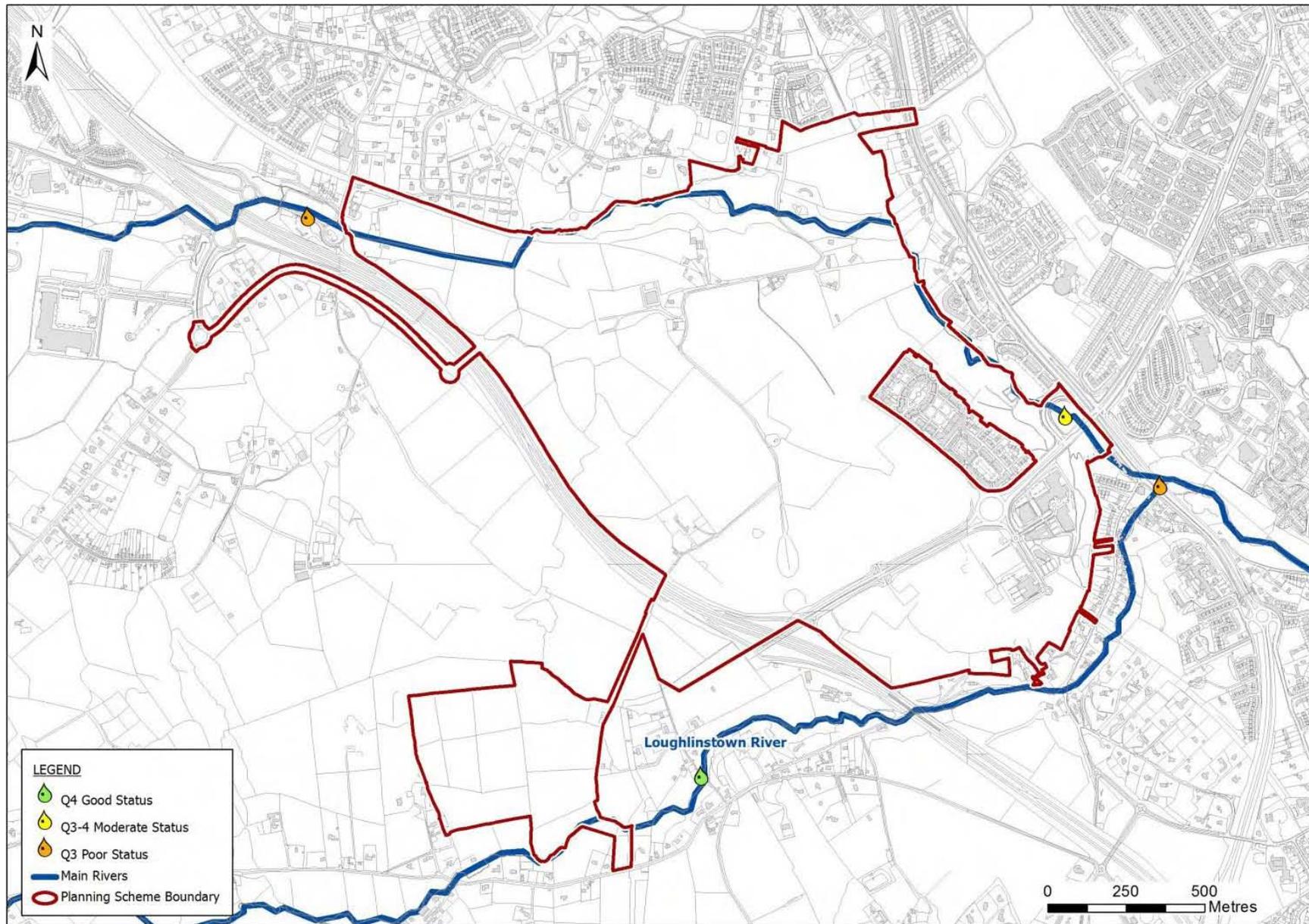
Based on available water quality data, both the Carrickmines Stream and the Loughlinstown River will need improvement in order to comply with the objectives of the WFD. Based on available water status data, the catchment of the Carrickmines Stream will need improvement in order to comply with the objectives of the WFD.

The ERBD Management Plan and associated Programme of Measures include provisions to help ensure that these water bodies meet the objectives of the WFD. The Planning Scheme and the County Development Plan 2010-2016

<sup>22</sup> RPS for Dún Laoghaire-Rathdown County Council (2012) *Flood Risk Assessment and Management Study at Priorsland, Carrickmines*

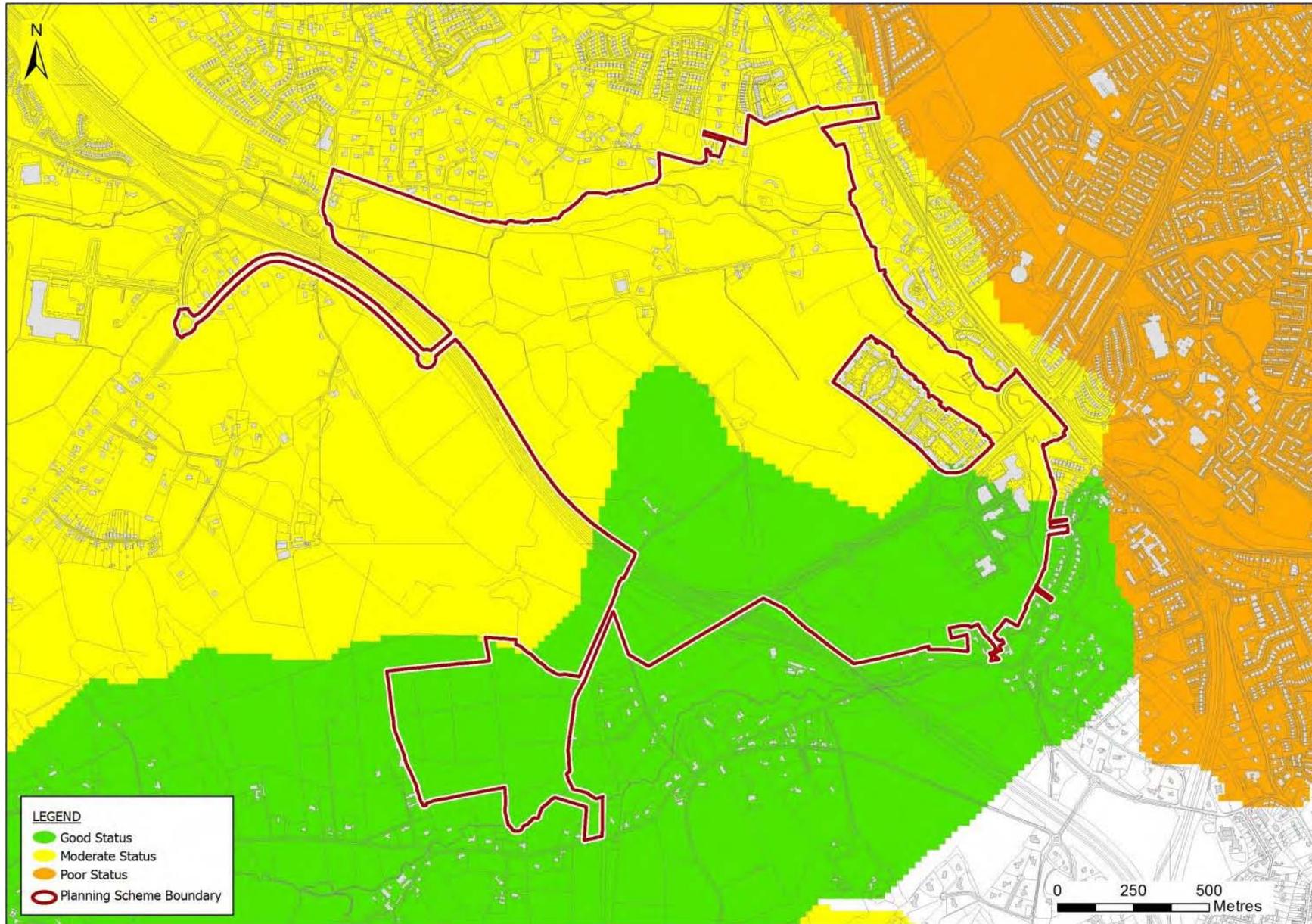
both contribute towards the achievement of the objectives of the WFD and the ERBD Management Plan.

Specified levels of flood risk have been identified in the Priorsland area however a management plan has been developed and will be implemented to address these risks.



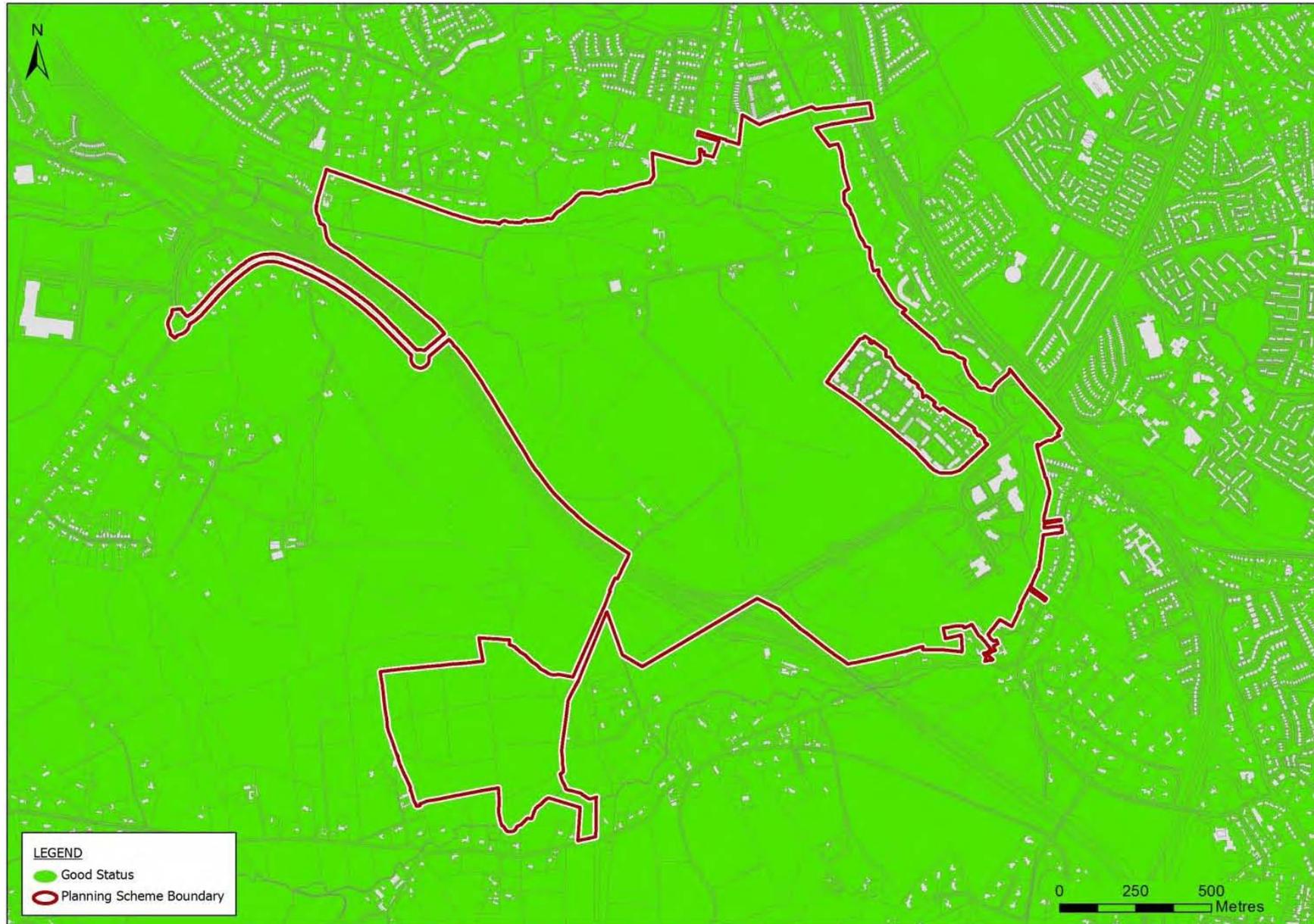
**Figure 4.10 Q-Values of Surface Waters in Cherrywood**

Source: EPA (2011)



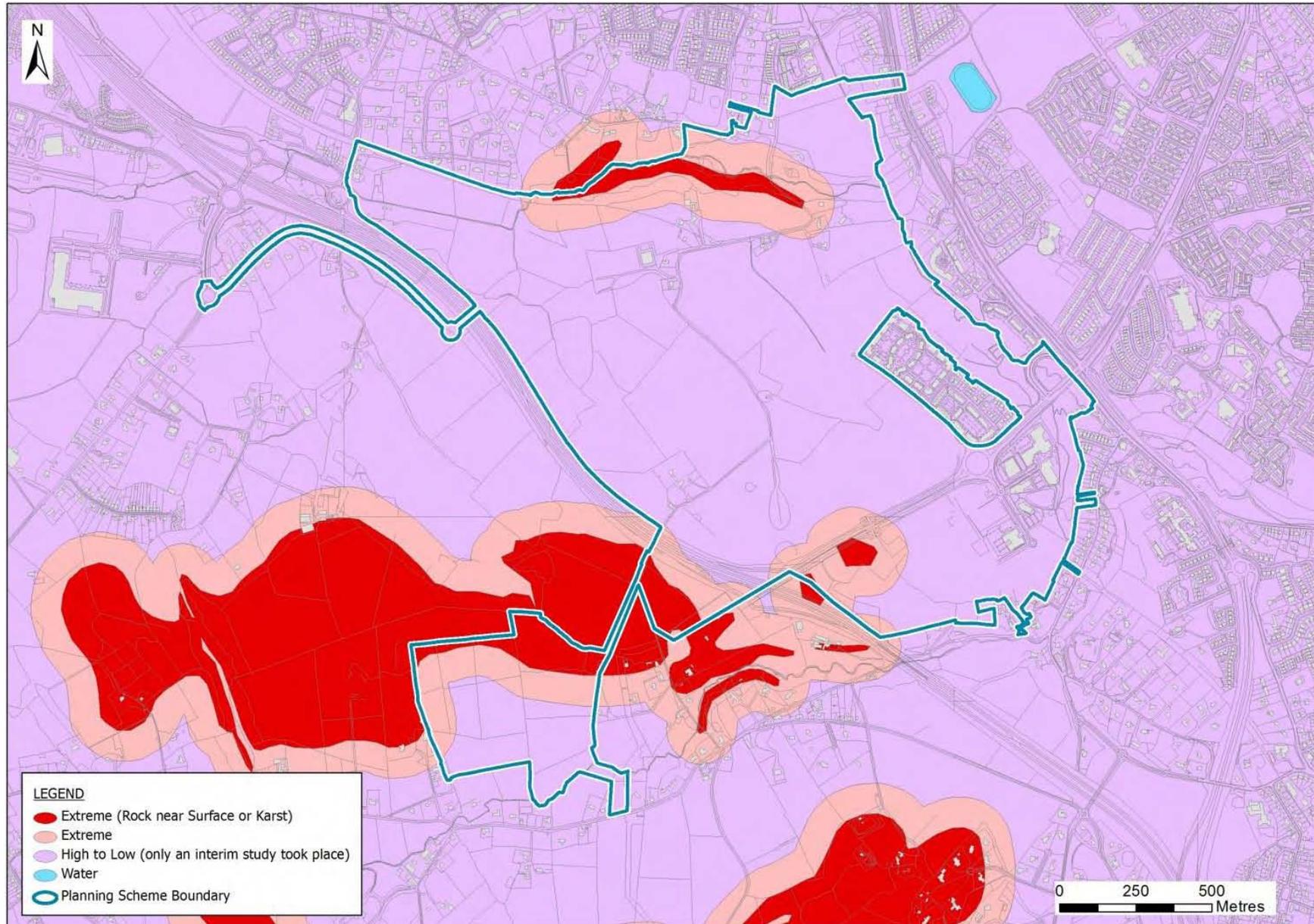
**Figure 4.11 WFD Status of Surface Waters**

Source: EPA (2011)



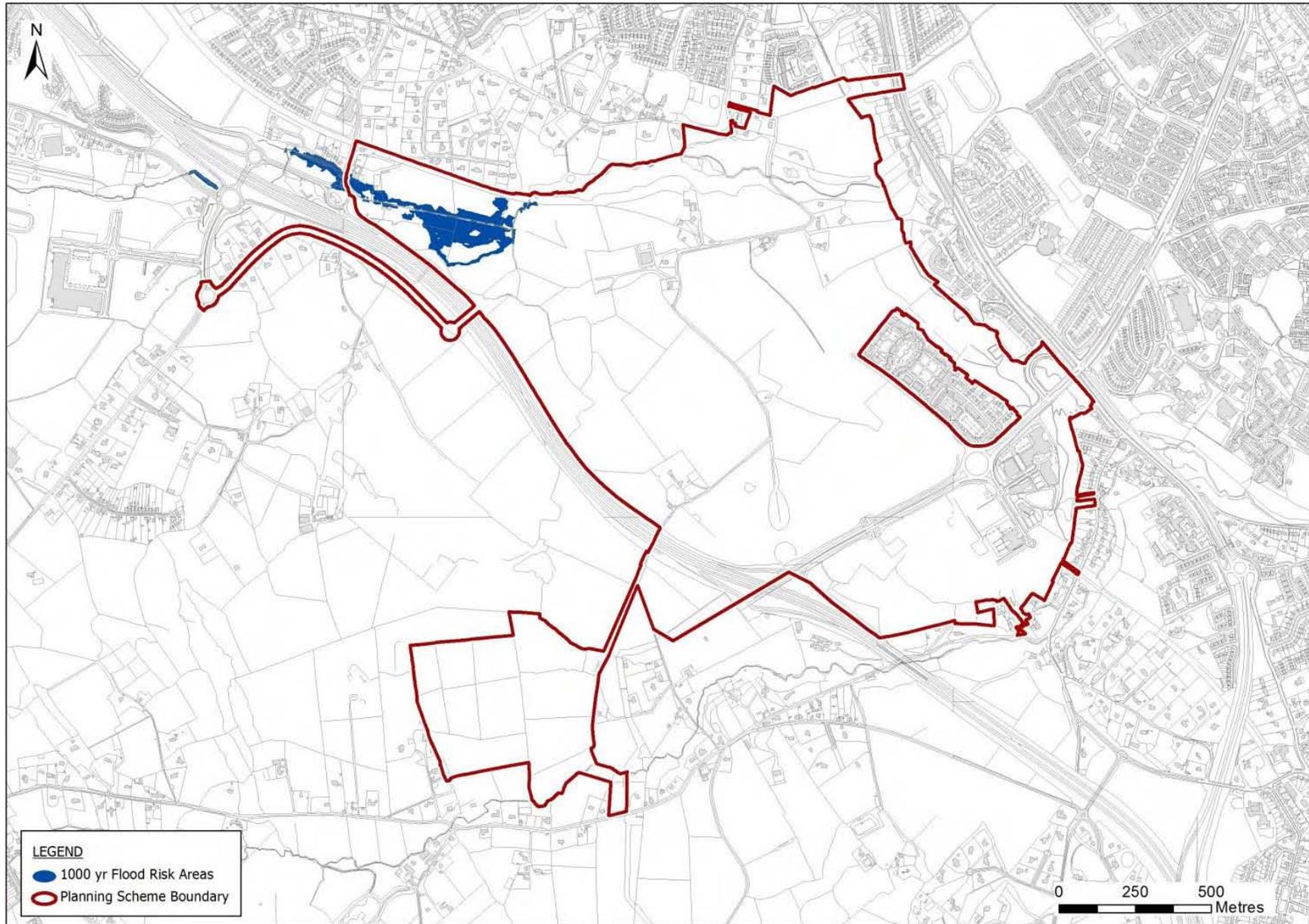
**Figure 4.12 WFD Status of Groundwater**

Source: EPA (2010)



**Figure 4.13 Aquifer Vulnerability**

Source: GSI (2006)



**Figure 4.14 1 in 1000 Flood Envelope at Priorsland**  
Source: RPS for Dún Laoghaire-Rathdown County Council (2012)

## 4.7 Air and Climatic Factors

### 4.7.1 Ambient Air Quality

#### 4.7.1.1 Introduction and Legislation

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 under the Air Quality Framework Directive 1996 as transposed into Irish law under the Environmental Protection Agency Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999 (SI No. 33 of 1999).

Four daughter Directives lay down limits or thresholds for specific pollutants. The first two of these directives cover: sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead; and, carbon monoxide and benzene. Two more daughter directives deal with: ozone; and polyaromatic hydrocarbons, arsenic, nickel, cadmium and mercury in ambient air.

Dún Laoghaire-Rathdown County Council has adopted 'The Air Quality Management Plan for the Dublin Region, 2009-2012' under the provisions of the Air Pollution Act.

#### 4.7.1.2 Air Zones

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 main areas defined in each zone are:

- Zone A: Dublin Conurbation.
- Zone B: Cork Conurbation.
- Zone C: 21 Other cities and large towns including Galway, Limerick, Waterford,

Clonmel, Kilkenny, Sligo, Drogheda, Wexford, Athlone, Ennis, Bray, Naas, Carlow, Tralee and Dundalk.

- Zone D: Rural Ireland, i.e. the remainder of the State - small towns and rural areas of the country - excluding Zones A, B and C.

The Planning Scheme area falls within Zone A. Air quality in Zone A is currently good.

## 4.7.2 Noise

### 4.7.2.1 The Environmental Noise Directive

Noise is unwanted sound. The Environmental Noise Regulations (SI No. 140 of 2006) transpose into Irish law the EU Directive 2002/49/EC relating to the assessment and management of environmental noise, which is commonly referred to as the Environmental Noise Directive or END. The END defines a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise.

It 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 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 END 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. Limit values are left to each member state. At this point in time, Ireland does not have any statutory limit values.

### 4.7.2.2 Noise Action Plan and Noise Model

As required by the END, Dún Laoghaire-Rathdown County Council in conjunction with Dublin City Council, South Dublin County Council and Fingal County Council, produced the Dublin Area Noise Action Plan and Noise Model in 2008.

The Action Plan is aimed at managing Environmental Noise. The noise model maps that were carried out as part of the Plan show colour coded areas in the Dublin Agglomeration based on sound levels.

### 4.7.2.3 Noise Assessment for the Planning Scheme

Consideration of the Noise Action Plan and Model early in the preparation of the Planning Scheme highlighted that transportation related noise sources are the primary contributors to the existing noise environment in Cherrywood. As a result of these considerations, a Noise Assessment was commissioned and undertaken by AWN Consulting in order to strategically assess the impact of the existing noise environment on the Planning Scheme area.

The maps from the Dublin Noise Action Plan are presented on a countywide scale that makes it difficult to assess with accuracy the noise levels that are experienced across the relatively small Planning Scheme area. In order to overcome this, a refined noise model was developed by the Noise Assessment using the same input data as that used in the development of the countywide noise maps. This has allowed the noise impact across the Planning Scheme area to be examined in detail and in isolation.

The noise maps produced by the Noise Assessment are considered to be a very useful tool for the assessment of noise impact at the strategic Planning Scheme level. The 2 included in this report show day and night time noise levels as follows:

- Figure 4.15 shows the average noise level during the daytime period of 07:00hrs to 19:00hrs (*Lday*)
- Figure 4.16 shows the average noise level during the night-time period of 23:00hrs to 07:00hrs (*Lnight*)

The study found that the M50 is the primary transportation corridor through the Planning Scheme area, and as a result is the dominant noise source, and that other road national/local roads and light rail sources also contribute to the overall noise environment and these sources.

The maps together with accompanying guidance for development with regard to noise levels have influenced the Planning Scheme's

Primary Land Uses Map as shown on Figure 9.1 under Section 9.3 *Mitigation through Integration of Environmental Considerations into the Planning Scheme Primary Land Uses Map* as well as influencing the insertion of a Noise Sensitivity Objective into the Planning Scheme<sup>23</sup>.

### 4.7.3 Sustainable Mobility

Travel is a source of:

1. Noise;
2. Air emissions; and
3. Energy use (38.8% of Total Final Consumption in Ireland in 2010 was taken up by transport, the largest take up of any sector)<sup>24</sup>.

Land-use planning contributes to what number and what extent of journeys occur. By addressing journey time through land use planning and providing more sustainable modes and levels of mobility, noise and other emissions to air and energy use can be minimised. Furthermore, by concentrating populations, greenfield development - and its associated impacts - can be minimised and the cost of service provision can be reduced.

Maximising sustainable mobility will also help Ireland meet its emission target for greenhouse gases - to limit the increase in combined emissions during the five-year period 2008-2012 to 13 per cent above 1990 levels - that comes from the internationally agreed Kyoto Protocol.

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<sup>23</sup> Objective PD33: It is an objective to require all development proposals to undertake a detailed noise impact assessment, including noise survey, prior to the lodgement of any planning application. The noise survey shall be carried out in general accordance with International Standards Organisation (ISO) 1996: 2007: Acoustics – Assessment, Description and Measurement of Environmental Noise. In residential plots, this survey shall be undertaken for a period of not less than two weeks, and in non-residential areas it shall be undertaken for a period of not less than 1 day. The noise impact assessment shall include an assessment of the survey findings, and recommendations on mitigation and control measures to protect amenity. The noise impact assessment shall be lodged with the relevant planning application.

<sup>24</sup> Sustainable Energy Ireland (2011) *Energy in Ireland 1990 – 2010*

### 4.7.4 Energy and Sustainability

In 2009, CODEMA carried out the “Cherrywood Vision and Sustainability Toolkit”<sup>25</sup>. The report set out to define extensive and transparent criteria or guidance to form a framework for a sustainable development vision to be used to aid planners and developers to facilitate a coherent ‘whole site’ strategy for sustainability.

An energy assessment of Cherrywood was carried out in 2011, also by CODEMA on behalf of the Council<sup>26</sup>. The proposed development was assessed under current building regulations as well as two alternative construction scenarios. The purpose of the report is to allow Dun Laoghaire Rathdown County Council to make more informed decisions about how to attain better energy efficiency standards while increasing the profile of the cutting edge development proposed at Cherrywood.

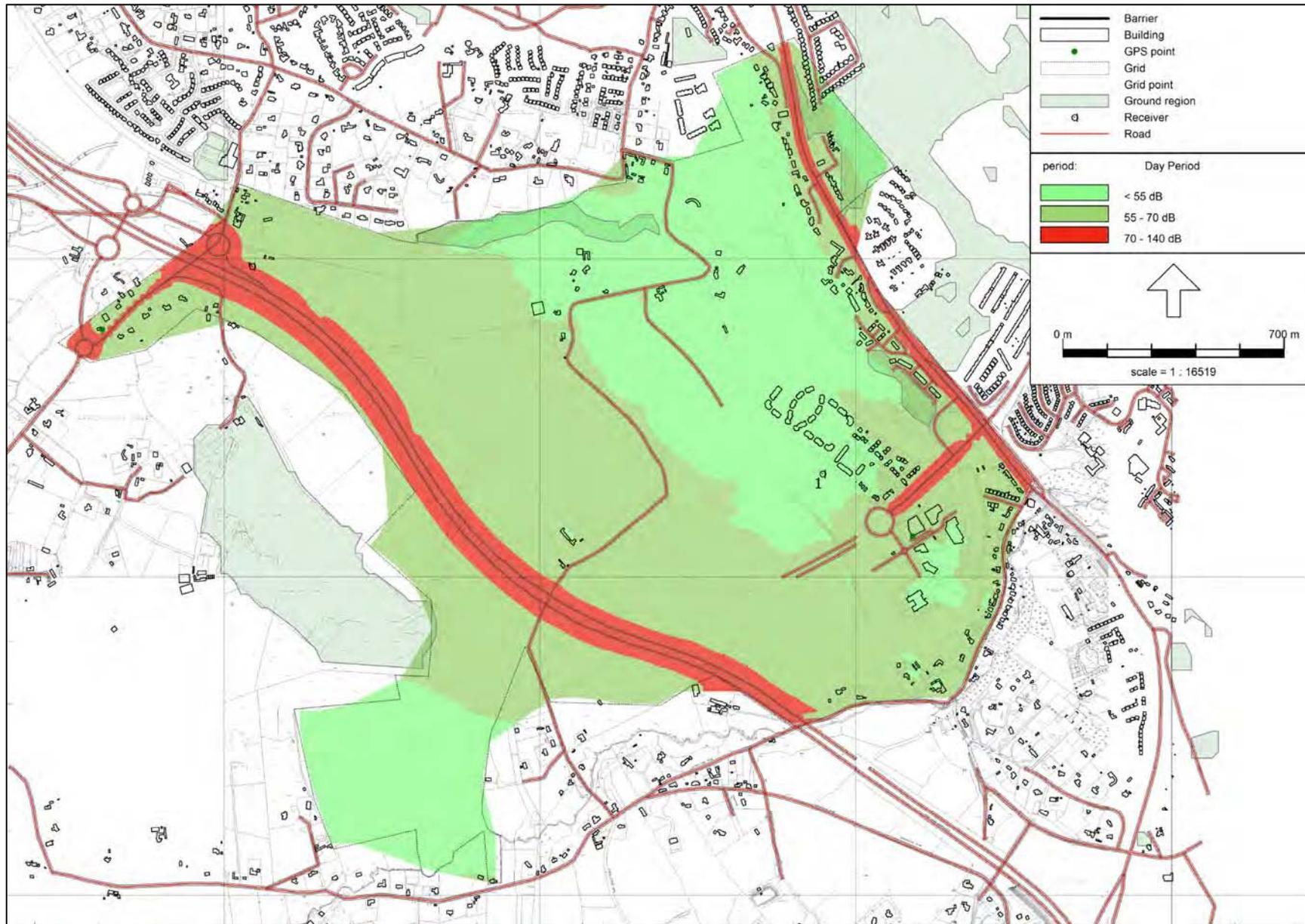
### 4.7.5 Existing Problems

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

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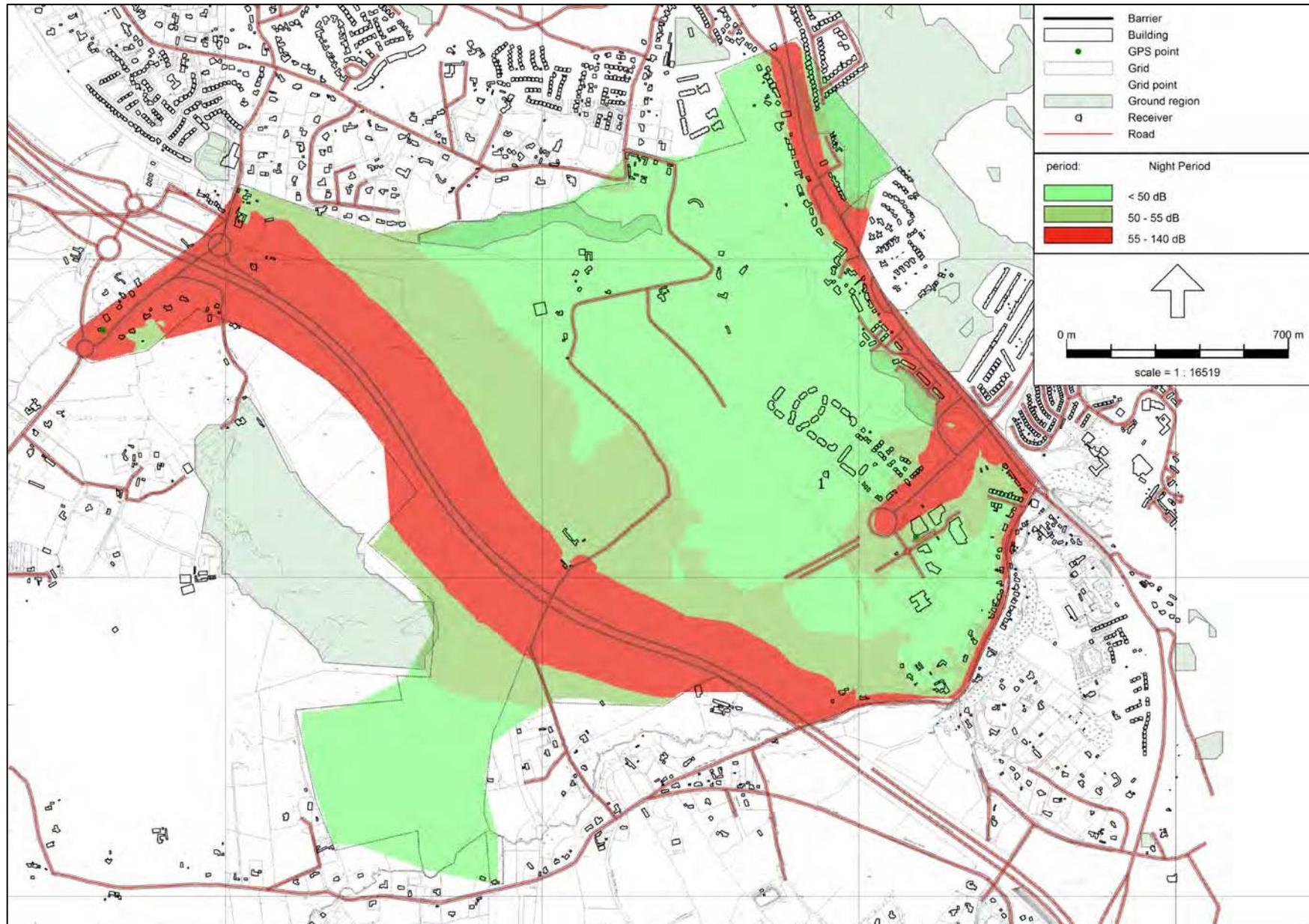
<sup>25</sup> CODEMA for Dún Laoghaire-Rathdown County Council (2009) *Cherrywood Vision and Sustainability Toolkit*

<sup>26</sup> CODEMA for Dún Laoghaire-Rathdown County Council (2011) *Cherrywood Energy Assessment*



**Figure 4.15 Noise Assessment Day Noise Model**

Source: AWN Consulting (2012)



**Figure 4.16 Noise Assessment Night Noise Model**  
Source: AWN Consulting (2012)

## 4.8 Material Assets

### 4.8.1 Waste Water

Foul sewerage within the Planning Scheme area discharges to the Shanganagh Wastewater Treatment Works (SWTW) which are located approximately 2km to the east. The SWTW is currently being upgraded as part of the Shanganagh Bray Wastewater Project, to cater for existing and all projected future catchment development flows.

Both future development areas of Cherrywood and Rathmichael are serviced by the existing foul sewer network infrastructure. A trunk sewer known as the 'Carrickmines Trunk Sewer' was constructed along the valley of the Carrickmines River through the Planning Scheme area in 1996. This sewer, which ranges in diameter from 600mm to 900mm in the Planning Scheme area, also serves Stepside, Ballyogan, Carrickmines and parts of Cabinteely. This sewer is also designed to carry flows (existing and predicted flows) from the Glenamuck/Kilternan LAP area.

### 4.8.2 Drinking Water

#### 4.8.2.1 Existing Supply

Water supply to the Cherrywood Planning Scheme area is taken account of by and relies upon elements of the following:

- The Dublin Supply Project – Major Source;
- Dublin Water Supply Storage Study 2007; and
- The Old Connaught Woodbrook Water Supply Scheme (OCWWSS)

#### 4.8.2.2 Future Source Considerations

As with all major developments in the Dublin region, the availability of a supply of water is a regional strategic issue which may be a constraining factor on future growth. This is outside the ability of the Planning Scheme to resolve and will require continual review by the Council.

In terms of local infrastructure, the Planning Scheme benefits from having an existing reservoir nearby at Rathmichael which is at a

suitable elevation and could provide adequate local storage to service the full development.

However, the supply to this reservoir is currently inadequate; this is primarily because of its total reliance on Roundwood Water Treatment Works. The solution to the supply difficulties are outside the direct control of the Council and will require the active involvement of Dublin City Council and the Department of the Environment and Local Government.

The 2007 Dublin Water Storage Study outlined infrastructural requirements for water supply to the south east of the Dublin Region, including the Cherrywood area. The area is totally reliant on Roundwood Water Treatment Works which delivers water into Stillorgan reservoir for Dublin City while supplying much of the coastal area of North Wicklow and Dún Laoghaire-Rathdown County Council en-route through two of Dublin City Council's arterial watermains.

The Study envisions that progressively less water will reach Stillorgan as future development in north Wicklow and the south-east of the Dublin Region (including Cherrywood) abstracts more water from these watermains. Eventually, it will be necessary to pump water back up one or both watermains to supply the additional demand.

Since the completion of the Storage Study, the Roundwood source has suffered a reduction in output and may be further reduced. As a result, the security of supply to the area is currently unsatisfactory and Rathmichael reservoir is particularly badly affected. There is no alternative source and additional development of any significance could not be serviced until this difficulty is remedied.

There are measures which would improve the situation for Cherrywood by prioritising water from Dublin City Council's arterial watermains into Rathmichael at the expense of water delivery to Stillorgan reservoir for supply to Dublin city. The measures can only be progressed in consultation with Dublin City Council can progress these measures. Their Water Services Division is aware of the current supply problem and future planning difficulties for Dún Laoghaire-Rathdown County Council and is currently exploring solutions, especially in the context of contingency plans in the event of major failure of the Roundwood supply. The resolution of this constraint is thus outside the direct control of Dún Laoghaire-

Rathdown County Council and must be progressed in a regional water supply context.

A secondary approach could include measures to provide alternative supplies for areas currently supplied by Roundwood. One such measure identified is the laying of a strategic watermain from Dún Laoghaire-Rathdown County Council's Church Road Reservoir to Shankill; the preliminary design of the Old Connaught Woodbrook Water Supply Scheme (OCWWSS) includes this watermain. This could enable the coastal strip to be taken off the Roundwood supply thus improving supply security and holding the prospect of improved development potential south of Shankill. However, it would not directly enable supply to Cherrywood and, of itself, is insufficient to secure supplies for development there.

The Planning Scheme proposes water supply infrastructure, the environmental consequences of which are identified in Section 8 of this report.

#### 4.8.2.3 Drinking Water Quality<sup>27</sup>

Drinking water must be clean and wholesome. That means it must meet the relevant water quality standards and must not contain any other substance or micro-organism in concentrations or numbers that constitute a potential danger to human health.

Compliance with the drinking water requirements is determined by comparing the results of analyses submitted by water suppliers to the standard for 48 parameters specified in the European Communities (Drinking Water) Regulations (No. 2), 2007. To ensure that these standards are met, each water supply must be monitored on a regular basis.

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, 2007. The EPA publishes their results in annual reports which include Remedial Action Lists (RALs). The RAL identifies water supplies which are not in compliance with the Regulations mentioned above.

<sup>27</sup> Text in this section is sourced from EPA (2009) *The Provision and Quality of Drinking Water in Ireland: A Report for the Years 2007-2008*, Wexford: EPA

The most recently published EPA RAL (EPA, 2011) includes the Roundwood Water Supply due to treatment and management issues identified by an EPA Audit Observation. The RAL recommends that the replacement of the Callow Hill Tunnel, use of covered storage reservoir and upgrade of disinfection system.

### 4.8.3 Waste

Dún Laoghaire-Rathdown County Council currently has no landfill site or any active waste treatment facilities in its functional area; hence the vast bulk of waste that arises in the county is collected locally and transferred to facilities outside the county such as those at Kill and KTK Landfill at Kilcullen, County Kildare.

Occasionally a time-limited or volume-limited waste permit is granted to a landowner for the acceptance of waste material suitable for land reclamation purposes. Such waste is classed as inert e.g. soil and/rock and may be sourced within or outside the county.

There are currently a number of "bring centres" for recyclables available for public use in the county.

### 4.8.4 Transport

#### 4.8.4.1 Roads

Cherrywood is well situated adjacent to the strategic national road network. It has access to the M50 motorway at Lehaunstown interchange, which directly links the site into the national inter-urban motorway network and also provides vehicular access to centres to the south (Bray / Wicklow), the north (Sandyford / Dundrum) and the west (Tallaght / Blanchardstown). The site also has access to the N11 dual carriageway at Wyattville interchange, which provides access to Dublin city centre via Cornelscourt, Stillorgan, UCD and Donnybrook.

The Wyattville Link Road traverses the site between the two interchanges. It forms part of a route that has been developed over many years to improve access from Dun Laoghaire town and environs to the N11 and M50. The Glenamuck road is an important link road to the north of the site between Kiltarnan and Cornelscourt.

On the northern boundary of the site is Brennanstown Road, a sylvan route that

passes through Cabinteely village and cannot be upgraded to provide adequate access to Cherrywood without seriously undermining the environmental quality of the area.

Cherrywood Road is also sylvan in nature with limited ability to be upgraded. Lehaunstown Lane is a winding, narrow lane that runs through Cherrywood and the alignment, width and character of the road could not serve significant increases in traffic.

#### 4.8.4.2 Public Transport

The Cherrywood area is served by the N11 QBC and the No.7 bus route. On the N11 QBC in the am peak hour there are currently (2012) seven No. 145/45 buses operating between the City Centre and Wicklow and one No. 84 bus operating between UCD and Newcastle. The No.7 bus operates 5 services between the Cherrywood / Loughlinstown area and the City Centre via Dun Laoghaire. In the short term it is proposed to move the No.7 terminus to a bus / Luas interchange at Bride's Glen stop, where shelters, bus stops, RTPI information signs etc. will be provided.

The Luas Green Line traverses the Planning Scheme area with stops at Carrickmines, Brennanstown, Lehaunstown, Cherrywood and Bride's Glen. The total journey time from Stephen's Green to Bride's Glen is estimated at 40 minutes. Currently, parts of this service operate 40m trams at up to 18 times in the peak hour (8-9 am) providing an achievable hourly capacity of c.4,200.

Demand for public transport is greatest in the am peak hour. In the 2010 RPA Rail Census, the highest am peak hour inbound line flow was 3,740 between Beechwood and Ranelagh. The demand peaks at 8.27am with 294 passengers on board. The highest am peak hour outbound lineflow was 1,647 at the section between Milltown and Windy Arbour. There is more demand from passengers wishing to go to jobs in the city centre than vice versa.

The nearest DART stations to Cherrywood are approximately 2.5km away at Killiney and Shankill. The DART provides a high frequency rail service to Dublin City Centre.

#### 4.8.4.3 Walking and Cycling

Existing pedestrian and cycle facilities adjacent to Cherrywood include:

- Segregated one-way cycle lanes and footways on Wyattville Road, crossing the N11 to Wyattville Link Road as far as Cherrywood roundabout;
- Pedestrian phases in the various sets of traffic signals at the Wyattville interchange;
- Segregated one-way cycle lanes and footways along the majority of the N11;
- Pedestrian footbridges over the N11 at Johnstown Road and Loughlinstown roundabout;
- Two signalised pedestrian crossings of the N11 between the Wyattville interchange and the Johnstown Road junction (Kilbogget and Shanganagh Vale).

The Planning Scheme area suffers from high levels of severance due to the steep topography of the Carrickmines and Bride's Glen river valleys and the M50 motorway. The surrounding road network, particularly the N11, is not an attractive environment for cyclists and pedestrians due to the type, speed and volume of the traffic.

#### 4.8.5 Existing Problems

New drinking water and transportation works will be needed to facilitate future populations in Cherrywood.

The most recently published EPA Remedial Action List (EPA, 2011) includes the Roundwood Water Supply due to treatment and management issues identified by an EPA Audit Observation.

The provisions of the Planning Scheme and the provisions of the County Development Plan 2010-2016 will contribute towards protection of the environment with regard to impacts arising from material assets.

## 4.9 Cultural Heritage

### 4.9.1 Introduction

Heritage, by definition, means inherited properties, inherited characteristics and anything transmitted by past ages and ancestors. It covers everything, from objects and buildings to the environment. Cultural heritage includes physical buildings, structures and objects, complete or in part, which have been left on the landscape by previous and indeed current generations.

### 4.9.2 Archaeological Heritage

#### 4.9.2.1 Introduction

Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological heritage consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence. As archaeological heritage can be used to gain knowledge and understanding of the past it is of great cultural and scientific importance.

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.

Archaeological sites may have no visible surface features; the surface features of an archaeological site may have decayed completely or been deliberately removed but archaeological deposits and features may survive beneath the surface.

#### 4.9.2.2 Record of Monuments and Places

Archaeological heritage is protected under the National Monuments Acts (1930-2004), National 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.

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.

There are 31 monuments and places listed in the RMP in the Planning Scheme area. The area has a rich heritage of archaeology, spanning from the Mesolithic (middle Stone Age) through to the Medieval and Post-Medieval periods, and has a significant military history dating from 13<sup>th</sup> to 18<sup>th</sup> Centuries.

Entries to the RMP include Tully Church and 2 associate high crosses, a wedge tomb at Laughanstown, Carrickmines Castle, lying at the north-west boundary of the Planning Scheme area, a dolmen at Brennanstown, the zone of archaeological potential for this monument lies within the Planning Scheme area.

Significant archaeological excavations in the Cherrywood area have taken place over the last 15 years associated with the South Eastern Motorway, the Luas B1 Line, residential and other developments which have indicated a high potential for further archaeological material yet to be identified.

Entries to the RMP are listed on Table 4.1 and mapped on Figure 4.17.

### 4.9.3 Architectural Heritage

#### 4.9.3.1 Introduction

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.

#### 4.9.3.2 Record of Protected Structures

The Record of Protected Structures (RPS) is legislated for under the Planning and Development Acts 2000-2010.

Protected Structures are defined 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:

- the interior of the structure;
- the land lying within the curtilage<sup>28</sup> of the structure;
- any other structures lying within that curtilage and their interiors; and,
- all fixtures and features which form part of the interior or exterior of any structure or structures referred to in subparagraph (i) or (iii).

There are 9 entries to the RPS that are situated within the Planning Scheme area and another 5 which are situated on the borders of the Planning Scheme boundary - all are listed on Table 4.2 and mapped on Figure 4.17.

#### **4.9.3.3 Architectural Conservation Areas**

The Planning and Development Acts 2000-2010 provide the legislative basis for the protection of areas known as 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. The Foxrock ACA lies to the north of the Planning Scheme area and part of this ACA is mapped on Figure 4.17.

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<sup>28</sup> Curtilage is normally taken to be the parcel of ground immediately associated with the Protected Structure, or in 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.

#### **4.9.4 Existing Problems**

The context of archaeological and architectural heritage has changed over time within and surrounding the Planning Scheme area however no active conflicts between development and legislative objectives governing archaeological and architectural heritage were identified.

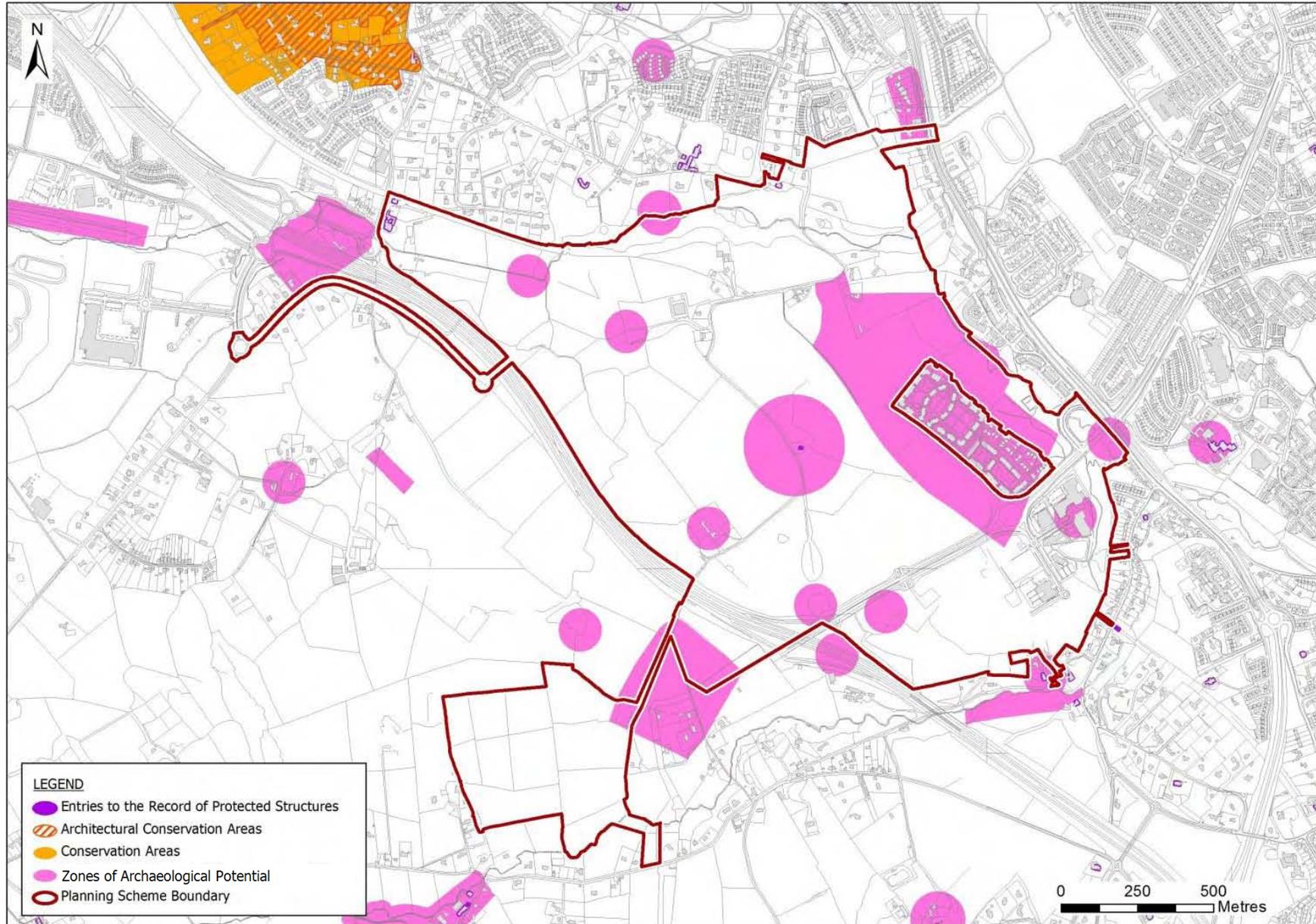
**Table 4.1 Entries to the Record of Monuments and Places**

Location	RMP No.	Classification
Laughanstown	026-023009	Ecclesiastical Enclosure
Laughanstown	026-024	Wedge Tomb – Megalithic Tomb
Glebe	026-025	Cairn
Laughanstown	026-026	Cairn
Cherrywood	026-027	Enclosure
Laughanstown	026-028	Inn Site
Carrickmines Great	026-071002	Field System
Carrickmines Great	026-080001	Enclosure
Carrickmines Great	026-080002	Watermill
Laughanstown	026-093	Castle- Tower House
Glebe	026-114	House 16th/17 <sup>th</sup> Century
Cherrywood	026-127	Camp
Laughanstown	026-144	Rock Art
Carrickmines Great	026-150	Fulacht Fia
Cherrywood	026-160	Habitation Site
Cabinteely	026-119	Burial Ground
Carrickmines Great	026-005001	Castle
Carrickmines Great	026-005002	Bawn
Carrickmines Great	026-005003	Fortification
Carrickmines Great	026-005004	Mill Unclassified
Carrickmines Great	026-005005	Castle
Laughanstown	026-006	Enclosure
Brennanstown	026-007	Portal-tomb – Megalithic tomb
Carrickmines Great	026-022	Enclosure
Laughanstown	026-023001	Church
Laughanstown	026-023002	Graveyard
Laughanstown	026-023003	High Cross
Laughanstown	26-023004	High Cross
Laughanstown	026-023006	Grave-Slabs
Laughanstown	026-023007	Cross
Laughanstown	026-023008	Cross Inscribed stone

**Table 4.2 Entries to the Record of Protected Structures**

Structure Name	Description	RPS/RMP No. <sup>29</sup>
<b>Structures within the Planning Scheme area</b>		
Priorsland	House, Out-Offices and Gates	1746
Station House (Former Carrickmines Railway Station)	Railway Station (former) House	1743
Glendruid	House	1730
Glendruid	Entrance Gates	1730
Lehaunstown Park (Laughanstown Castle)	Castle-Tower House	026-093
Tully Church	Church, High Cross, Grave–Slabs	026-023
Brennanstown Dolmen	Portal Tomb	026-007
Laughanstown	Wedge Tomb	026-024
Bride's Glen Viaduct	Viaduct	1783
<b>Structures on the borders of the Planning Scheme boundary</b>		
Cherrywood House	House	1788
Rathmichael Glebe House	Rectory (former)	1787
Mullinstill House	House	1791
Brenanstown House	House and Out- Offices	1715
Barrington's Tower	House	1729

<sup>29</sup> Note that some structures are included in the RMP and are listed on Table 4.1.



**Figure 4.17 Cultural Heritage Designations**

Source: Dún Laoghaire-Rathdown County Council (2010)

## 4.10 Landscape

### 4.10.1 Baseline

The Planning Scheme area is part of the current edge between the City's continuous urbanised area and the less developed urban fringe areas. The latter comprise open fields interspersed with dwellings located along the network of roads in the area.

The surrounding area lies along the transition between the eastern foothills of the Wicklow Mountains and the coastal plain of the Irish Sea.

The Planning Scheme is located in an area centred on a low hill [74mOD] in a valley between Killiney Hill [152mOD] and Carrickgollogan [246mOD].

The hill lies at the confluence of two tributaries of the Loughlinstown River - which gives it localised topographic prominence when seen from within these deeply incised, steep-sided stream corridors.

Only two elevated areas offer panoramic views across the Planning Scheme area, the areas around Killiney Hill to the north east and the areas around Ticknick/Rathmichael to the south-west. Viewed from these more distant areas, the Planning Scheme area is perceived in two distinctive contexts as follows:

- When viewed from elevated areas to the north east, the Planning Scheme area will form the foreground to a panorama of hills of ever increasing height that culminate in the skyline formed by the Wicklow mountains;
- When viewed from the south-west, the Planning Scheme area will be seen in the context of the fully urbanised suburbs of Carrickmines, Cabinteely, Sallynoggin, Killiney, Ballybrack and Loughlinstown.

### 4.10.2 County Development Plan 2010-2016 Designation

The formal designation of the character of the landscape is contained within County Development Plan 2010-2016 at Appendix F –

Landscape Character Assessment – which notes that Character Unit 14 Cherrywood/Rathmichael 'is undergoing dramatic change with the introduction of the Luas B1 line and the development of the Cherrywood Science and Technology Park.'

The relevant formal description of the sensitivity/strategy of this landscape contained within that appendix states 'Development within the Cherrywood Rathmichael (sic) shall take into account the features of landscape importance within the site.'

The County Development Plan 2010-2016 at Table 9.1 lists relevant Prospects to be preserved as:-

- Carrickgollogan from Ballybrack (e.g. Church Road and Churchview Road)
- Carrickgollogan from Bray Road (Shankill to Bray area)
- Three Rock Mountain and Two Rock Mountain from the Ballybrack Road
- Glencullen Mountain and Valley from the Ballybrack Road

County Development Plan 2010-2016 designations within and surrounding the Planning Scheme area are shown on Figure 4.18.

### 4.10.3 Key Sensitivities in the landscape surrounding the Planning Scheme area

The elements that most strongly establish the distinctive character of the surrounding landscape are listed below. The significance of the effects on the character and appearance of the landscape will be in proportion to the degree that these elements are affected.

- Panoramic view of the edge of the city meeting the foothills of the Wicklow Mountains with the distant skyline – as seen from elevated areas to the north east.
- Panoramic Views of the coast – including Killiney Hill – with foreground and middle distance views of mature suburbs with associated trees and landmark spires.

- Localised views of high amenity woodlands along stream corridors.

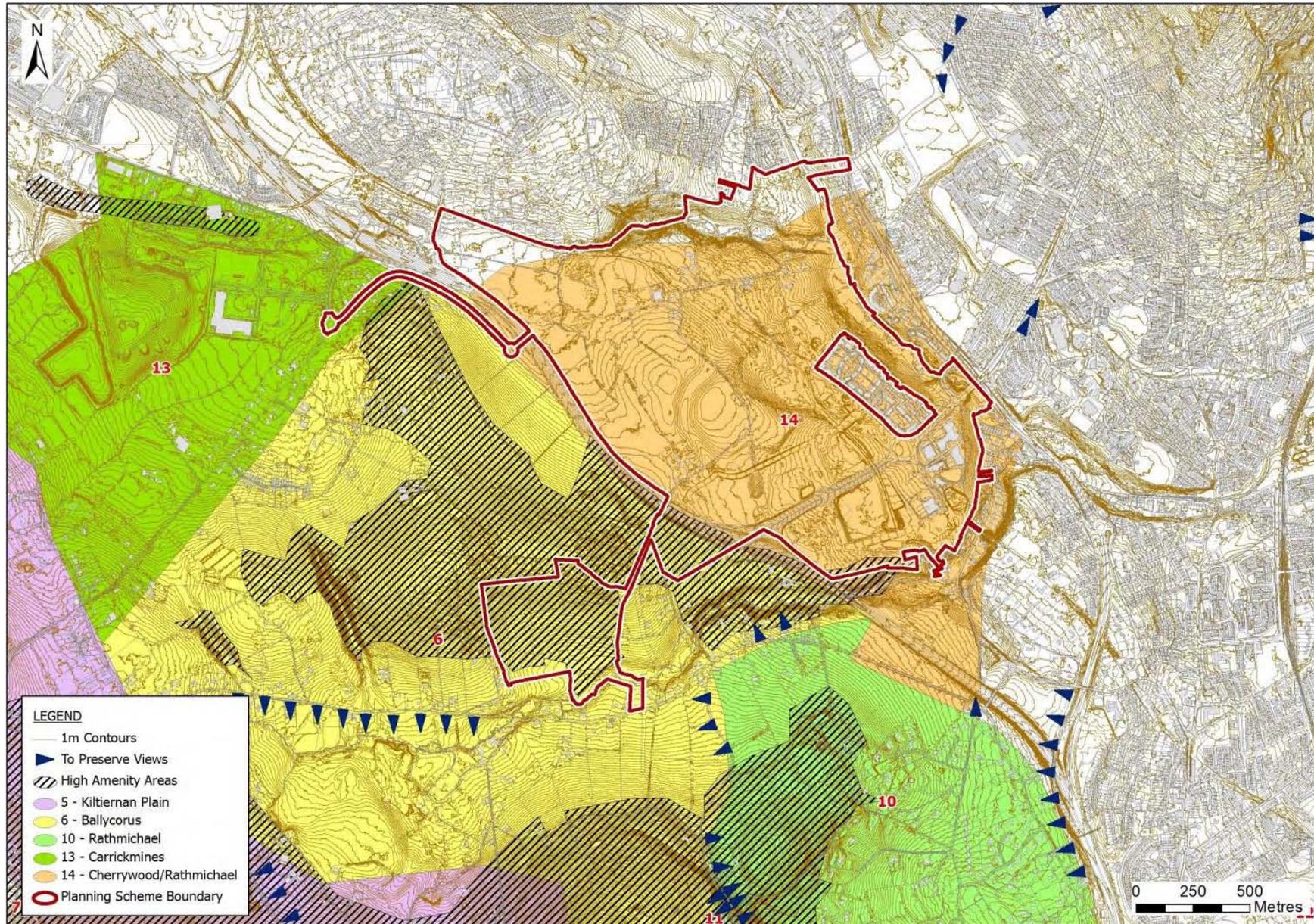
#### **4.10.4 Key Landscape Sensitivities within the Planning Scheme area**

The elements that most strongly establish the distinctive character of the landscape are listed below. The significance of the effects on the character and appearance of the landscape will be in proportion to the degree that these elements are affected.

- The integrity of the lands around Tully Church – i.e. the context of the Church and its associated setting of trees, Lehaunstown Lane and the panoramic views from the nearby hill top.
- The natural quality of the steep-sided stream valleys that enclose the north and east of the site.
- Occasional panoramic views from vantage points towards the surrounding landscape features – including Killiney hill, the coast and the Wicklow Mountains and its foothills.
- The context and setting of items of cultural heritage.

#### **4.10.5 Existing Problems**

New residential, commercial and transportation developments and site preparation works, including those in recent years have resulted in changes to the visual appearance of lands within and surrounding the Planning Scheme area however legislative objectives governing landscape and visual appearance were not identified as being conflicted with.



**Figure 4.18 County Development Plan (2010-2016) Landscape Designations**

Source: Dún Laoghaire-Rathdown County Council (2010)

## Section 5 Strategic Environmental Objectives

### 5.1 Introduction

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which 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 which 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 Planning Scheme 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.

SEOs are distinct from the objectives of the Planning Scheme - although they will often overlap - and they are not given statutory weight by virtue of their use in Strategic Environmental Assessments.

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

SEOs were developed taking into account feedback provided by the EPA, National Parks and Wildlife Service and Dún Laoghaire-Rathdown County Council.

### 5.2 Biodiversity, Flora and Fauna

#### 5.2.1 International, European and National Strategic Actions

##### 5.2.1.1 Habitats Directive 1992

The European Council Directive on the Conservation of natural habitats and of wild fauna and flora (92/43/EEC), referred to as the Habitats Directive, aims to ensure the conservation of certain natural habitats and

species which are at favourable conservation status.

Special Areas of Conservation (SACs) are designated and protected under the Habitats Directive 1992 (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union.

The Habitats Directive establishes Natura 2000, a network of protected areas throughout the EU. SACs together with Special Protection Areas (SPAs) - which are designated under the 1979 Birds Directive - make up the Natura 2000 network of protected sites.

Article 6 of the Habitats Directive provides for the need to undertake Appropriate Assessments of plans or projects which have the potential to impacts upon Natura 2000 sites.

Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and stepping stones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna. The Directive requires that ecological connectivity and areas of ecological value outside the network of designated ecological sites are maintained, and it recognises the need for the management of these areas through land use planning and development policies.

In Ireland, the habitats and species occurring in both SACs and SPAs are protected from effects of development occurring outside their boundaries under Section 18 "Prohibition of works on lands outside a European site" of the European Communities (Natural Habitats) Regulations 1997. The Regulations require that where a development is proposed to be carried out, on any land that is not within a protected site and is liable to have an adverse impact on the protected site in question, including direct, cumulative and indirect impacts, an Appropriate Assessment is required.

The integration of the requirements of Article 6 of the Habitats Directive into the Planning and Development Act 2010 (Amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 puts the

requirement for Appropriate Assessment into context for both projects and plans.

#### **5.2.1.2 Birds Directive 1979**

The 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC), referred to as the Birds Directive, - as well as its amending acts - seeks to protect, manage and regulate all bird species naturally living in the wild within the European territory of the Member States, including the eggs of these birds, their nests and their habitats; and to regulate the exploitation of these species.

The Directive places great emphasis on the protection of habitats for endangered as well as migratory species, especially through the establishment of a coherent network of Special Protection Areas (SPAs).

SPAs are protected under the Directive and have been designated in Ireland by the Department of Arts, Heritage and the Gaeltacht due to their conservation value for birds of importance in the European Union.

#### **5.2.1.3 European Communities (Birds and Natural Habitats) Regulations 2011**

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, as well as addressing transposition failures identified in the CJEU judgements.

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.

#### **5.2.1.4 UN Convention on Biological Diversity 1992**

The United Nations Convention on Biological Diversity 1992 requires the promotion of the conservation and sustainable use of biodiversity.

#### **5.2.1.5 National Biodiversity Plan 2011**

The preparation and implementation of Ireland's 2<sup>nd</sup> National Biodiversity Plan 2011<sup>30</sup> 'Actions for Biodiversity 2011 – 2016' complies with an obligation under the UN Convention on Biological Diversity. The Plan has been developed in line with the EU and International Biodiversity strategies and policies.

The measures Ireland will take are presented as 102 actions under a series of 7 Strategic Objectives. Some of the actions within the plan are continuing elements of existing work and many are requirements under existing EU Directives. The objectives cover the conservation of biodiversity in the wider countryside and in the marine environment, both within and outside protected areas; the mainstreaming of biodiversity across the decision making process in the State; the strengthening of the knowledge base on biodiversity; increasing public awareness and participation; and Ireland's contribution to international biodiversity issues, including North South co-ordination on issues of common interest.

#### **5.2.1.6 Wildlife Act 1976 and Wildlife (Amendment) Act 2000**

The basic designation for wildlife is the Natural Heritage Area (NHA). 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. Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated - designation will proceed on a phased basis over the coming years.

The Planning and Development Act 2010 defines a 'wildlife site' as:

- (a) an area proposed as a natural heritage area and the subject of a notice made under section 16(1) of the Wildlife (Amendment) Act 2000,

<sup>30</sup> Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Biodiversity Plan* Dublin: Government of Ireland

(b) an area designated as or proposed to be designated as a natural heritage area by a natural heritage area order made under section 18 of the Wildlife (Amendment) Act 2000,

(c) a nature reserve established or proposed to be established under an establishment order made under section 15 (amended by section 26 of the Wildlife (Amendment) Act 2000) of the Wildlife Act 1976,

(d) a nature reserve recognised or proposed to be recognised under a recognition 5 order made under section 16 (amended by section 27 of the Wildlife (Amendment) Act 2000) of the Wildlife Act 1976, or

(e) a refuge for fauna or flora designated 10 or proposed to be designated under a designation order made under section 17 (amended by section 28 of the Wildlife (Amendment) Act 2000) of the Wildlife Act 1976.

### 5.2.2 Heritage and Biodiversity Plans

The Dún Laoghaire-Rathdown County Heritage Plan includes no statutory actions that seek to increase knowledge of and management capabilities for heritage in a strategic way and will seek to inform the decision making process with regard to the policies of the County Development Plan 2010-2016. The Heritage Plan examines heritage as defined by the Heritage Act 1995 - monuments, archaeological objects, heritage objects, architectural heritage, flora, fauna, wildlife habitats, landscapes, seascapes, wrecks, inland waterways, heritage gardens and parks - and so is relevant also to the environmental component of cultural heritage (see Section 0).

The Dún Laoghaire-Rathdown County Biodiversity Plan 2009-2013 provides a framework to fully integrate biodiversity considerations into a broad range of sectors within the county and includes various objectives, targets and actions relating to biodiversity.

### 5.2.3 SEOs, Indicators and Targets

<b>SEO B1:</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species <sup>31</sup>
Indicator B1i:	Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive
Target B1i:	Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Planning Scheme <sup>32</sup>
Indicator B1ii:	Conservation status of relevant Tuffa springs
Target B1ii:	Maintenance of favourable conservation status of relevant Tuffa springs

<b>SEO B2:</b>	To ensure 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 - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
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<sup>31</sup> 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>32</sup> Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- (a) no alternative solution available;
- (b) imperative reasons of overriding public interest for the plan to proceed; and
- (c) adequate compensatory measures in place.

Indicator B2i:	Percentage loss of functional connectivity without remediation resulting from development provided for in the Planning Scheme
Target B2i:	No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Planning Scheme
Indicator B2ii:	Status and relevance of biodiversity related measures contained within the Planning Scheme and the Biodiversity Plan
Target B2ii:	Ensure continuing compliance with and relevance of, as appropriate, biodiversity related measures contained within the Planning Scheme and the Biodiversity Plan

<b>SEO B3:</b>	To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites <sup>33</sup> and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal act
Indicator B3i:	Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for in the Planning Scheme
Target B3i:	Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for in the Planning Scheme
Indicator B3ii:	Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976.
Target B3ii:	No significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976
Indicator B3iii:	Population and spatial extent of bats/bryophytes in Druids Glen
Target B3iii:	Maintain population and spatial extent of bats/bryophytes in Druids Glen

## 5.3 Population and Human Health

### 5.3.1 Population

The new population provided for in the Planning Scheme will interact with various

<sup>33</sup> The Planning and Development Act 2010 defines a 'wildlife site'. See Section 5.2.1.

environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes - consideration of SEOs B1, B2 and B3 cover this issue
- Increase in demand for wastewater treatment at the municipal level - consideration of SEO M1 covers this issue
- Increase in demand for water supply - consideration of SEO M2 covers this issue
- Development in flood-sensitive areas - consideration of SEO W3 covers this issue
- Effect on water quality - consideration of SEOs W1 and W2 cover this issue

## 5.3.2 Human Health

### 5.3.2.1 Overview

The impact of implementing the Planning Scheme on human health is determined by the impacts which the Planning Scheme will have upon 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. Impacts would be influenced by the extent to which new development is accompanied by appropriate infrastructure - this relates to SEOs M1 and M2; Impacts upon the quality of water bodies - these relate to SEOs W1 and W2; and the extent of development provided which would affect flood risk - this relates to SEO W3.

The impact of implementing the Planning Scheme on human health will be determined by the impacts which the Planning Scheme will have upon environmental vectors.

### 5.3.2.2 Emission Limits

Emission limits for discharges to air, soil and water are set with regards to internationally recognised exposure limit values. These are generally set to be many times the safe exposure limit - in order to provide protection. In the event that a land-use plan began to have adverse health effects on surrounding populations it is likely that it would have been identified as being in breach of such emission standards at a very early stage - and long

before the manifestation of any adverse health effects in the population. Nonetheless for the sake of consistency with the requirements of the SEA Regulations this section includes an objective, indicator and target for health.

### 5.3.3 SEO, Indicator and Target

<b>SEO HH1:</b>	To protect human health from exposure to incompatible landuses
<b>Indicator HH1:</b>	Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for in the Planning Scheme, as identified by the Health Service Executive and Environmental Protection Agency
<b>Target HH1:</b>	No spatial concentrations of health problems arising from environmental factors as a result of implementing the Planning Scheme

## 5.4 Soil

### 5.4.1 Overview

Soil is subject to a series of degradation processes or threats. These include erosion, decline in organic matter, local and diffuse contamination, sealing, compaction, decline in biodiversity, salinisation, floods and landslides. A combination of some of these threats can ultimately lead arid or sub-arid climatic conditions to desertification.

Given the importance of soil and the need to prevent further soil degradation, the Sixth Environment Action Programme<sup>34</sup> called for the development of a Thematic Strategy on Soil Protection ('the strategy').

<sup>34</sup> Decision No 1600/2002/EC of the European Parliament and of the Council of 22<sup>nd</sup> July 2002 laying down the Sixth Community Environment Action Programme (OJ L 242, 10.9.2002, p. 1).

## 5.4.2 SEO, Indicator and Target

<b>SEO S1:</b>	To avoid damage to the hydrogeological and ecological function of the soil resource in Cherrywood
<b>Indicator S1:</b>	Soil extent and hydraulic connectivity
<b>Target S1:</b>	To minimise reductions in soil extent and hydraulic connectivity

## 5.5 Water

### 5.5.1 The Water Framework Directive 2000

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD has been transposed into Irish legislation by the European Communities (Water Policy) Regulations 2003 (SI No. 722 of 2003). 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 by 2015.

### 5.5.2 Quality Standards for Surface Waters

The European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) is the final major piece of legislation needed to support the WFD and gives statutory effect to Directive 2008/105/EC on environmental quality standards in the field of water policy. The Surface Waters Regulations also give further effect to the WFD, establishing a framework for Community action in the field of water policy and Directive 2006/11/EC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.

The Surface Waters Regulations apply to all surface waters - including lakes, rivers, canals, transitional waters, and coastal waters - and provide, inter alia, for:

- The establishment of legally binding quality objectives for all surface waters and environmental quality standards for pollutants;
- The examination and where appropriate, review of existing discharge authorisations by Public Authorities to ensure that the emission limits laid down in authorisations support compliance with the new water quality objectives/standards;
- The classification of surface water bodies by the EPA for the purposes of the Water Framework Directive;
- The establishment of inventories of priority substances by the EPA, and;
- The drawing up of pollution reduction plans by coordinating local authorities (in consultation with the EPA) to reduce pollution by priority substances and to cease and/or phase out discharges, emissions or losses of priority hazardous substances.

In order to satisfy the overall WFD objective of 'good status', a surface water body must achieve the requirements of the good ecological<sup>35</sup> and chemical<sup>36</sup> status.

### 5.5.3 Quality Standards and Threshold Values for Ground Water

Detailed provisions to achieve the aims of the WFD for ground water have been presented in a Groundwater Directive (Directive 2006/118/EC on the protection of groundwater against pollution and deterioration).

This Directive sets up environmental objectives of good groundwater quantity and good groundwater quality (chemical status), as well as ensuring a continuity to the 1980 Groundwater Directive (Directive 80/68/EEC on the protection of groundwater against

<sup>35</sup> Ecological status comprises: biological quality elements, physiochemical conditions and hydromorphological quality elements. The overall ecological status of the water body is determined by the lowest level of status achieved across all quality elements.

<sup>36</sup> Chemical status assessment is based on compliance with the standards laid down for priority substances by Directive 2008/105/EC on environmental quality standards in the field of water policy (the Surface Waters Regulations give effect to the environmental standards established by this Directive).

pollution caused by dangerous substances) which is due to be repealed under the WFD by the end of 2013.

Article 3 of the 2006 Directive requires that the assessment of the chemical status of groundwater use both quality standards identified in Annex I of the Directive and threshold values to be set by individual member states.

Groundwater quality standards are environmental quality standards expressed as the concentration of a particular pollutant, group of pollutants or indicator of pollution in groundwater, which should not be exceeded in order to protect human health and the environment. Annex I of the Directive sets standards for two pollutants: Nitrates - 50mg/l - and; Active substances in pesticides<sup>37</sup>, including their relevant metabolites, degradation and reaction products - 0,1 µg/l and 0,5 µg/l (total<sup>38</sup>).

Irish groundwater threshold values<sup>39</sup> are currently in the process of being set by the EPA.

## 5.5.4 Eastern River Basin Management Plan

Cherrywood is located in the Eastern River Basin District (ERBD) for which the Eastern River Basin Management Plan and Programme of Measures has been prepared. The Plan and Programme provide for the implementation of

<sup>37</sup> 'Pesticides' means plant protection products and biocidal products as defined in Article 2 of Directive 91/414/EEC and in Article 2 of Directive 98/8/EC, respectively.

<sup>38</sup> 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

<sup>39</sup> Threshold values are to be established by Member States for all pollutants and indicators of pollution which characterise groundwater bodies classified as being at risk of failing to achieve good groundwater chemical status under the WFD. Threshold values are required to be established in a way that, should the monitoring results at a representative monitoring point exceed the thresholds, this will indicate a risk that one or more of the conditions for good groundwater chemical status - with regard to the ability of groundwater to support human uses and with regard to waters used for the abstraction of drinking water - are not being met.

measures to enable the achievement of the requirements of the WFD.

## 5.5.5 Flooding

### 5.5.5.1 EU Floods Directive

European Directive 2007/60/EC on the assessment and management of flood risks aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive applies to inland waters as well as all coastal waters across the whole territory of the EU.

The Directive requires Member States to carry out a preliminary assessment by 2011 in order to identify the river basins and associated coastal areas at risk of flooding. For such zones flood risk maps are required to be drawn up by 2013. By 2015 flood risk management plans focused on prevention, protection and preparedness must be established by 2015.

The Directive is to be carried out in coordination with the Water Framework Directive and flood risk management plans and river basin management plans should be coordinated.

### 5.5.5.2 DEHLG Flood Risk Management Guidelines

In November 2009 the DEHLG issued *The Planning System and Flood Risk Management Guidelines* for Planning Authorities. These are aimed at ensuring a more consistent, rigorous and systematic approach which will fully incorporate flood risk assessment and management into the planning system.

The Guidelines require the planning system to, among other things:

- Avoid development in areas at risk of flooding, particularly flood plains, unless there are proven sustainability grounds that justify appropriate development and where flood risk can be reduced or managed to an acceptable level, without increasing flood risk elsewhere;
- 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.

### 5.5.5.3 Flood Risk Assessment

A detailed flood risk assessment was carried out on all significant watercourses in the SDZ which identified out of bank flooding, for a flood event greater than the 1 in 100 year flood event, in six general locations in the SDZ. The Council identified only one of these floodplain locations where development is being considered, namely in Priorsland. To accord with the Flood Guidelines a more detailed flood risk assessment and management plan<sup>40</sup> was completed for the Priorsland area. The management plan identified measures to manage the flood risk in this area (see also Section 4.6.7).

### 5.5.6 SEOs, Indicators and Targets

Note that SEOs W1 and W2 also relate to the quality of soils.

<b>SEO W1:</b>	To maintain and improve, where possible, the quality and status of surface waters
<b>Indicator W1:</b>	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)
<b>Target W1:</b>	Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' <sup>41</sup> by 2015

<sup>40</sup> RPS for Dún Laoghaire-Rathdown County Council (2012) *Flood Risk Assessment and Management Study at Priorsland, Carrickmines*

<sup>41</sup> Good status as defined by the WFD equates to approximately the following in the current national schemes of classification as set out by the EPA:

- *Q4* in the biological classification of *rivers*;
- *Mesotrophic* in the classification of *lakes*; and
- *Unpolluted* status in the Assessment of Trophic Status of *Estuaries and Bays* in Ireland (ATSEBI).

<b>SEO W2:</b>	To prevent pollution and contamination of ground water
<b>Indicator W2:</b>	Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC
<b>Target W2:</b>	Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

<b>SEO W3:</b>	To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)
<b>Indicator W3:</b>	Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
<b>Target W3:</b>	Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with <i>The Planning System and Flood Risk Management Guidelines</i> for Planning Authorities

## 5.6 Material Assets

### 5.6.1 Water Services Act 2007

The Water Services Act 2007 (SI No. 30 of 2007) incorporates a comprehensive review, update and consolidation of all existing water services<sup>42</sup> legislation, and facilitates the establishment of a comprehensive supervisory

<sup>42</sup> Services, including the provision of water intended for human consumption, which provide storage, treatment or distribution of surface water, groundwater or water supplied by a water services authority, or waste water collection, storage, treatment or disposal.

regime to ensure compliance with specified performance standards.

Section 36 of the Act provides for the making of 6-year Water Services Strategic Plans (WSSPs) in order to:

- to protect human health and the environment;
- to facilitate the provision of sufficient water services for domestic and non-domestic requirements in the area to which the plan relates; and
- to support proper planning and sustainable development, including sustainable use of water resources.

WSSPs are to be made by Water Services Authorities for their functional areas. The Act allows for two or more Water Services Authorities to jointly make a WSSP in relation to all of their combined functional areas, or parts thereof.

WSSPs are required to include information on the following:

- drinking water quality;
- the prevention or abatement of risk to human health or the environment;
- current and projected need for water services;
- arrangements in place or planned for the provision of water services;
- shortfalls in the provision of water services;
- water conservation measures in place or planned;
- monitoring arrangements;
- asset management planning; and
- income and expenditure.

Section 36 (9) of the Act allows for the making of regulations prescribing the manner in which any matter is to be set out or addressed in a WSSP, notification or consultation requirements and procedures or associated time limits, prior to and after its making.

### **5.6.2 Urban Waste Water Treatment Directive 2001**

The treatment of wastewater is governed by the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive

98/15/EEC) transposed into Irish law by the Urban Waste Water Treatment Regulations 2001 (SI No. 254 of 2001). The Directive aims to protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment. The Regulations stipulate that sewage treatment facilities are in place in all towns by 2005.

Appropriate treatment is essential in order to meet the requirements of the Water Framework Directive (see Section 5.5.1).

### **5.6.3 Drinking Water Regulations 2007**

The environmental baseline with regard to drinking water demand and supply is identified in Section 4.8.2. Measures have been integrated into the Development Plan in order to help ensure a clean and wholesome water supply.

The European Communities (Drinking Water) Regulations (No. 2) 2007 require the compliance of water intended for human consumption with 48 parameters.

### 5.6.4 SEOs, Indicators and Target

<b>SEO M1:</b>	To serve new development with adequate and appropriate waste water treatment
<b>Indicator M1i:</b>	Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Planning Scheme
<b>Target M1i:</b>	All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Planning Scheme
<b>Indicator M1ii:</b>	Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council
<b>Target M1ii:</b>	For the Council to prepare a Water Services Strategic Plan in compliance with the Water Services Act

<b>SEO M2:</b>	To serve new development with adequate drinking water that is both wholesome and clean
<b>Indicator M2i:</b>	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 Planning Scheme
<b>Target M2i:</b>	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 Planning Scheme
<b>Indicator M2ii<sup>43</sup>:</b>	Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council
<b>Target M2ii:</b>	For the Council to prepare a Water Services Strategic Plan in compliance with the Water Services Act

## 5.7 Air and Climatic Factors

### 5.7.1 Introduction

The impact of implementing the Planning Scheme on air quality and climatic factors will be determined by the impacts which the Plan has upon the traffic levels which relate to SEO C1.

Travel is a source of:

4. Noise;
5. Air emissions; and
6. Energy use (38.8% of Total Final Consumption in Ireland in 2010 was taken up by transport, the largest take up of any sector)<sup>44</sup>.

Land-use planning contributes to what number and what extent of journeys occur. By addressing journey time through land use planning, noise and other emissions to air and energy use can be minimised. Furthermore, by concentrating populations, greenfield development - and its associated impacts - can be minimised and the cost of service provision can be reduced.

### 5.7.2 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

<sup>43</sup> Indicator and Target M2ii are the same as Indicator and Target M1ii

<sup>44</sup> Sustainable Energy Ireland (2011) *Energy in Ireland 1990 – 2010*

combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well-being of 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 under the Air Quality Framework Directive 1996 while four daughter Directives lay down limits or thresholds for specific pollutants.

### 5.7.3 Climatic Factors

In order to reduce greenhouse gas emissions, the internationally agreed Kyoto Protocol established emissions reduction targets for developing countries. Ireland's emission target for greenhouse gases is to limit the increase in their combined emissions during the five-year period 2008-2012 to 13% above 1990 levels. Compliance with the Kyoto Protocol limit is achieved by ensuring that Ireland's total greenhouse gas emissions in the period 2008-2012, adjusted for any offsets from approved forest sinks, as well as any surrender of purchased Kyoto Protocol credits, are below this level at the end of the five year period.

### 5.7.4 Noise

Noise is unwanted sound. Traffic noise alone is harming today the health of almost one third of Europeans<sup>45</sup>.

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:

- Draw up *strategic noise maps* for major roads, railways, airports and agglomerations, using harmonised noise indicators<sup>46</sup> 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.

### 5.7.5 SEOs, Indicators and Targets

<b>SEO C1:</b>	To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport
<b>Indicator C1:</b>	Percentage of population working within the Planning Scheme area travelling to work by public transport or non-mechanical means
<b>Target C1:</b>	An increase in the percentage of the population travelling to work by public transport or non-mechanical means

## 5.8 Cultural Heritage

### 5.8.1 Archaeological Heritage

#### 5.8.1.1 Valletta Convention 1992

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.

<sup>45</sup> World Health Organization Regional Office for Europe (2003) *Technical meeting on exposure-response relationships of noise on health 19-21 September 2002* Bonn, Germany Bonn: WHO

<sup>46</sup> [ $L_{den}$  (day-evening-night equivalent level) and  $L_{night}$  (night equivalent level)]

### 5.8.1.2 National Heritage Plan for Ireland 2002

The core objective of the National Heritage Plan for Ireland 2002<sup>47</sup> is to protect Ireland's heritage. In this regard the polluter pays and the precautionary principle are operable.

### 5.8.1.3 National Monuments Acts

Archaeology in Ireland is protected under the National Monuments Acts 1930 to 2004.

Recorded monuments are protected by inclusion on the list and marked on the map which comprises the Record of Monuments and Places (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.

Any works at, or in relation to a recorded monument requires two months' notice to the Department of the Environment, Heritage and Local Government under section 12 of the National Monuments (Amendment) Act, 1994.

Direct impacts on national monuments in State or Local Authority care or subject to a preservation order require the consent of the Minister for the Environment, Heritage and Local Government under Section 14 of the National Monuments Act 1930 as amended by Section 5 of the National Monuments (Amendment) Act 2004.

### 5.8.2 Architectural Heritage

Records of Protected Structures (RPSs) are legislated for under Section 51 of the Planning and Development Acts 2000-2010 and include structures which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

<sup>47</sup> Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Heritage Plan for Ireland* Dublin: Government of Ireland

### 5.8.3 SEO, Indicators and Targets

**SEO CH1:** To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context

**Indicator CH1:** Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and the context of the above within the surrounding landscape where relevant) - protected

**Target CH1:** Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant)

**SEO CH2:** To protect as appropriate architectural heritage including entries to the Record of Protected Structures and their context

**Indicator CH2:** Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected

**Target CH2:** Protect entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant)

## 5.9 Landscape

### 5.9.1 Overview

The Baseline Visual Impact Assessment which was undertaken as part of the SEA, as well as designations under the current 2010-2016 County Development Plan informed the selection of Strategic Environmental Objective L1 and the sub-objectives identified under Section 5.9.2. Chapter 2 of the Planning Scheme includes Specific Objectives which will

contribute towards the minimisation of adverse visual impacts.

### 5.9.2 SEO, Indicator and Target

<b>SEO L1:</b>	To minimise significant adverse visual impacts within and adjacent to the Planning Scheme area <sup>48</sup>
<b>Indicator L1:</b>	The protection and enhancement of all key vistas and views designated by the Dún Laoghaire-Rathdown County Development Plan 2010-2016
<b>Indicator L2:</b>	The protection and enhancement of all views and panoramas to key local vantage points and civic buildings in the surrounding area, and within the Planning Scheme itself as identified in Chapter 2 of the Planning Scheme
<b>Indicator L3:</b>	The incorporation of key vantage points/panoramas

<sup>48</sup> Sub-Objectives:

- To preserve the integrity of all prospects to be preserved listed in the current version of the Dún Laoghaire-Rathdown County Development Plan 2010-2016
- To protect and enhance views and panoramas to key local vantage points and civic buildings in the surrounding area, and within the Planning Scheme itself
- To ensure the incorporation of key vantage points/panoramas within core areas of new development
- To create a sense of place and coherence/appreciation for the overall setting and context of Cherrywood,
- To ensure that principal visual axes of the public realm incorporate vistas towards significant external landscape features that enhance the character and distinctiveness of the plan area.
- To ensure that principal visual axes of the public realm incorporate views towards significant landscape features within the Planning Scheme area because these enhance its character and distinctiveness.
- To ensure the protection and enhancement of views towards local skylines formed by the enclosing ridges of the deeply incised stream corridors adjacent to and within the Planning Scheme.

	within core areas of new development
<b>Indicator L4:</b>	The creation of a sense of place and coherence/appreciation for the overall setting and context of Cherrywood
<b>Indicator L5:</b>	The establishment of principal visual axes of the public realm incorporate vistas towards significant external landscape features that enhance the character and distinctiveness of the Planning Scheme Area
<b>Indicator L6:</b>	The protection and enhancement of views towards local skylines formed by the enclosing ridges of the deeply incised stream corridors adjacent to and within the Planning Scheme
<b>Target L1:</b>	The successful implementation of the Planning Scheme will result in the Indicators L1 to L6 being achieved
<b>Target L2:</b>	No contraventions of the landscape provisions of the Dún Laoghaire-Rathdown County Development Plan 2010-2016

## Section 6 Description of Alternative Scenarios

### 6.1 Introduction

One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative scenarios for accommodating future growth at the Planning Scheme lands in Cherrywood.

This section identifies and describes different alternative scenarios, taking into account higher level strategic actions as well as the geographical scope of the SDZ lands. These alternative scenarios are realistic – development and implementation of each could be undertaken in compliance with environmental legislation although the resources required for mitigation would vary between scenarios – and capable of implementation.

The scenarios are evaluated in Section 7 resulting in the identification of potential effects and informing the selection of a preferred alternative for the Planning Scheme. The policies and objectives which are required to realise the preferred alternative are evaluated in Section 8.

### 6.2 Description of Alternative Scenarios

#### 6.2.1 Introduction

The following summarises a series of alternative scenarios which provide alternative visions of how the future development of the SDZ lands might occur. These are neither predictions nor preferences - instead they offer a range of plausible and internally consistent narratives of the outcome of different planning and development strategies. These provide the basis for the comparative evaluation of the likely environmental effects of each scenario, which in turn serves the purpose of identifying which features of the alternatives are likely to be sensitive or robust over the widest range of circumstances.

#### 6.2.2 Alternative Scenario 1: *The Cherrywood Common Infrastructure Implementation Plan*

Following the adoption of the County Development Plan 2004-2010, a Master Plan was devised for Cherrywood in 2007. At that time, it was decided to examine the feasibility of this plan in terms of the infrastructural requirements and phasing of development. This became the Cherrywood Common Infrastructure Implementation Plan 2008. This plan formed the basis of the County Council's request to the Government for the SDZ designation in 2008.

The Plan envisaged a new Town of c. 34,300 resident population, and an employment population of c. 17,600, with the masterplan area divided into ten development zones for a progressive phased development of the area. Having regard to the phased and considered approach to the development of Cherrywood as laid out in the Implementation Plan, it is a realistic option to examine.

The Block Plan map from the Plan is shown provided as Figure 6.1.

#### 6.2.3 Alternative Scenario 2: *2010-2016 County Development Plan zonings*

This alternative involves reproducing the current 2010-2016 County Development Plan zonings. The lands within the SDZ boundary are currently covered by the following zoning provisions:

- Objective DC: To protect, provide for and/or improve mixed-use district centre facilities.
- Objective E: To provide for economic development and employment.
- Objective F: To preserve and provide for open space with ancillary active recreational amenities.
- Objective A: To protect and/or improve residential amenity.

- Objective A1: To provide for new residential communities in accordance with approved local area plans.
- Objective B: To protect and improve rural amenity and to provide for the development of agriculture.
- Objective G: To protect and improve high amenity areas.

The current 2010-2016 County Development Plan zonings generally provide for a mixed use district centre, supported by extensive employment, residential and open space areas. There is one area, the A1 zoned lands, which require the provision of an approved local area plan. Other than these A1 lands, all other lands within the SDZ area are capable of being utilised, in accordance with their current zoning. This is therefore a realistic option for the Planning Scheme.

Current 2010-2016 County Development Plan zonings are shown on Figure 6.2.

### **6.2.4 Alternative Scenario 3: *Developers'/Landowners ' submissions, January 2011***

The Cherrywood Common Infrastructure Implementation Plan was written and submitted to the DEHLG in 2008. The SDZ designation was signed in 2010. Having regard to this time span, the Planning Authority invited the developers/landowners to make a written submission setting out any new issues they wished to have considered in the Planning Scheme. Their submissions were received in January 2011. These submissions suggested a lower density focus for the plan area, a reduced infrastructure provision due to the reduced level of growth in the surrounding areas and a revised phasing of development. New land uses were also proposed. The combined landowners' submissions are therefore a realistic alternative proposal for the Planning Scheme.

It was not appropriate to prepare a map for this scenario due to both the inconsistent coverage of lands referred to in the submissions across the SDZ lands and the varying levels of detail provided with regard to these lands.

### **6.2.5 Alternative Scenario 4: *The Planning Scheme***

This alternative (see Figure 6.3<sup>49</sup>) sets out the form, scale and nature of development and supporting infrastructure to enable the delivery of growth that is economically sound, environmentally friendly, and supportive of healthy communities - growth that enhances quality of life.

Central to the alternative is Cherrywood Town Centre which was designated as a District Centre under the Retail Strategy for the Greater Dublin Area 2008-2016, providing up to 35,000sq.m of net lettable retail floorspace. There are also three Village Centres: Priorsland, Tully Village and Lehaunstown, each with an appropriate range and scale of retail, commercial, community and other facilities.

The proposed infrastructure within Cherrywood has the potential to accommodate a resident population of 20,800<sup>50</sup> and a working population of 17,500.

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<sup>49</sup> The boundary and land uses shown on Figure 6.3 in this section are that which were adopted as part of the Planning Scheme.

A change to the boundary of the Draft Planning Scheme was made in the south-western corner of the SDZ before the Scheme was adopted. This change would not be likely to result in significant environmental effects.

A change to the land uses of the Draft Planning Scheme was made in the south of the SDZ before the Scheme was adopted (an area of High Intensity Employment Uses was changed to Residential). This change would not be likely to result in significant environmental effects.

A number of changes were made to the Planning Scheme on foot of modifications specified by An Bord Pleanála on approval of the Scheme. These changes would not be likely to result in significant environmental effects.

<sup>50</sup> Note that this figure was reduced from the Draft Planning Scheme figure of 25,000.

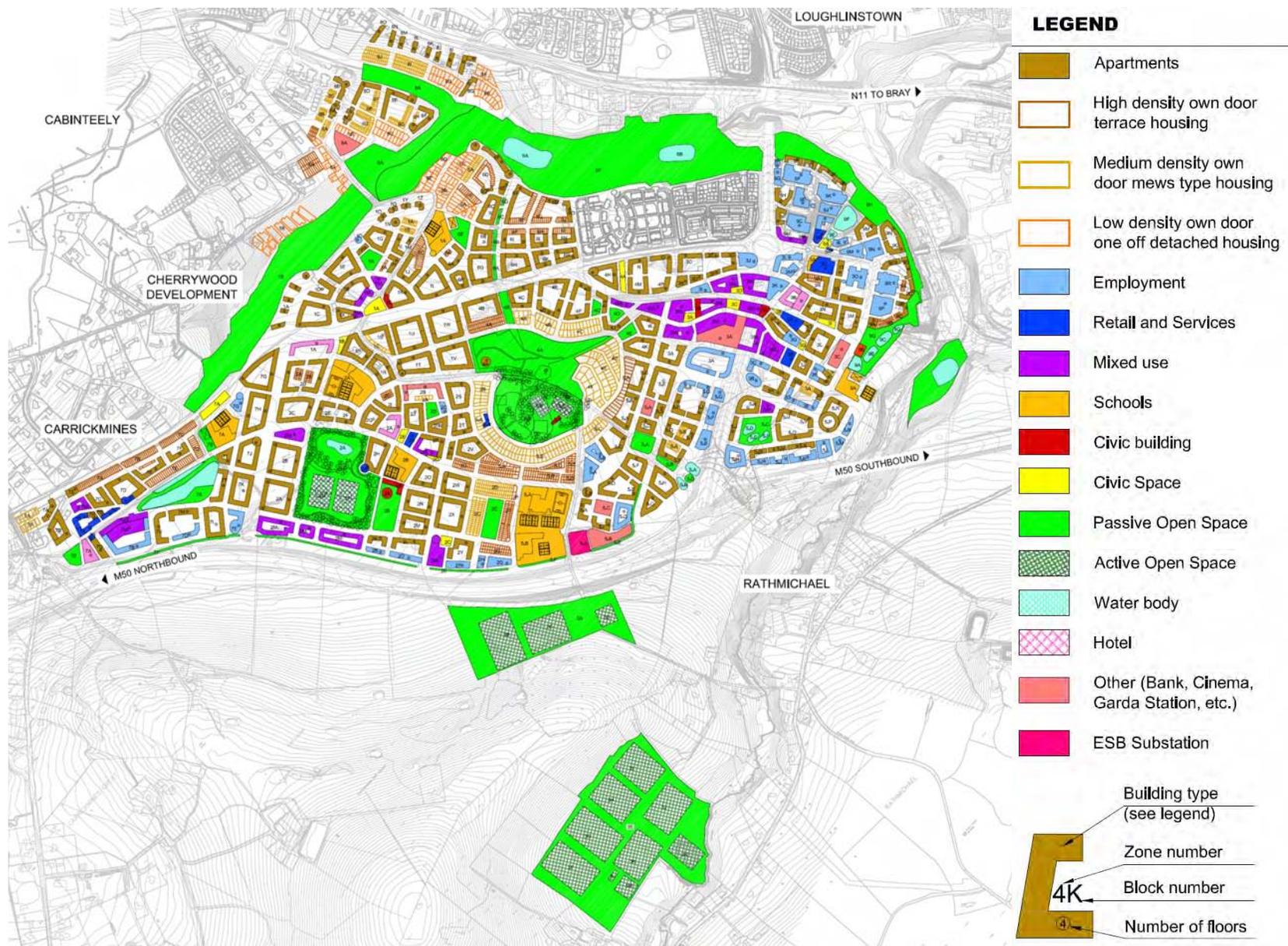
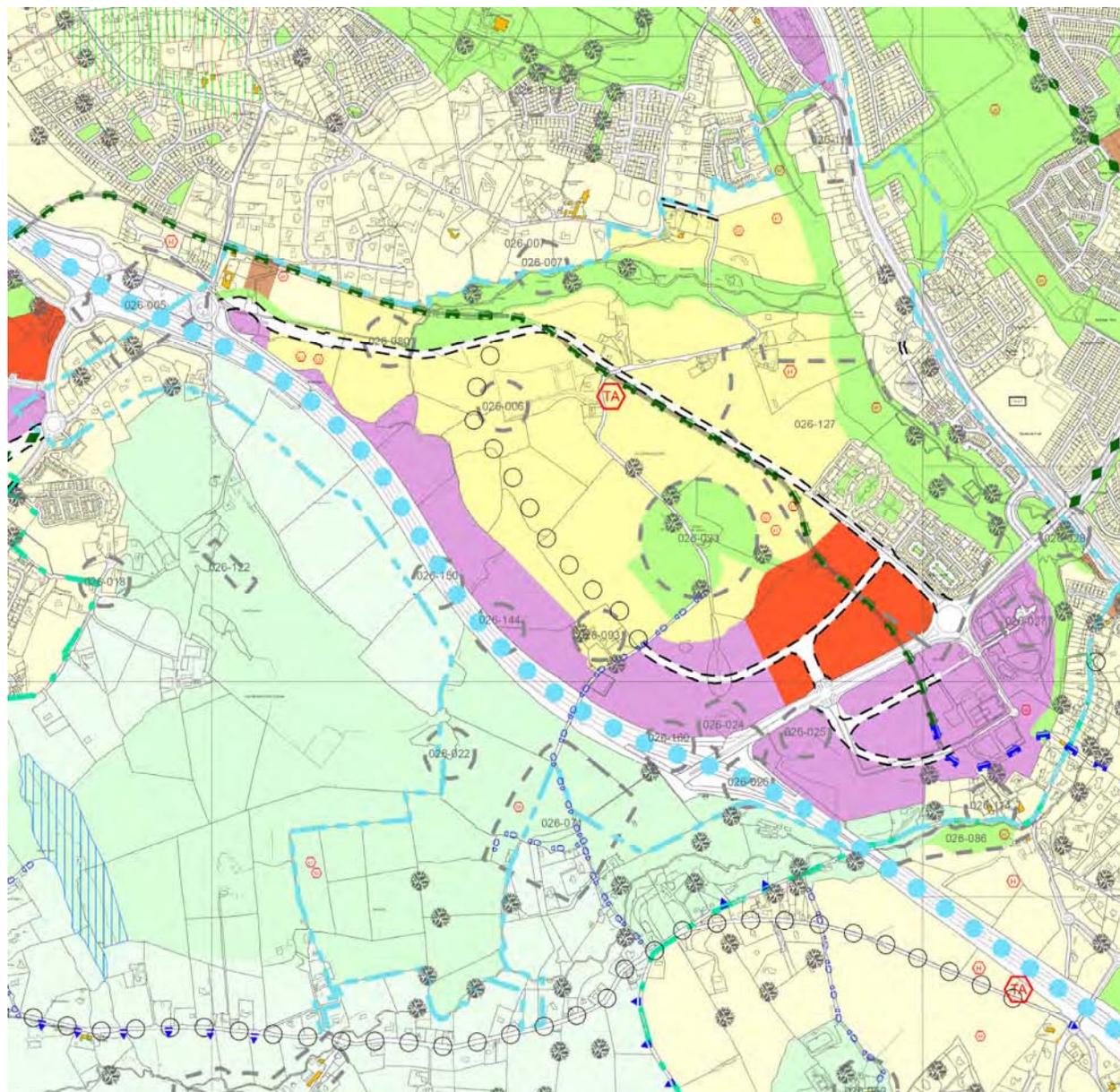


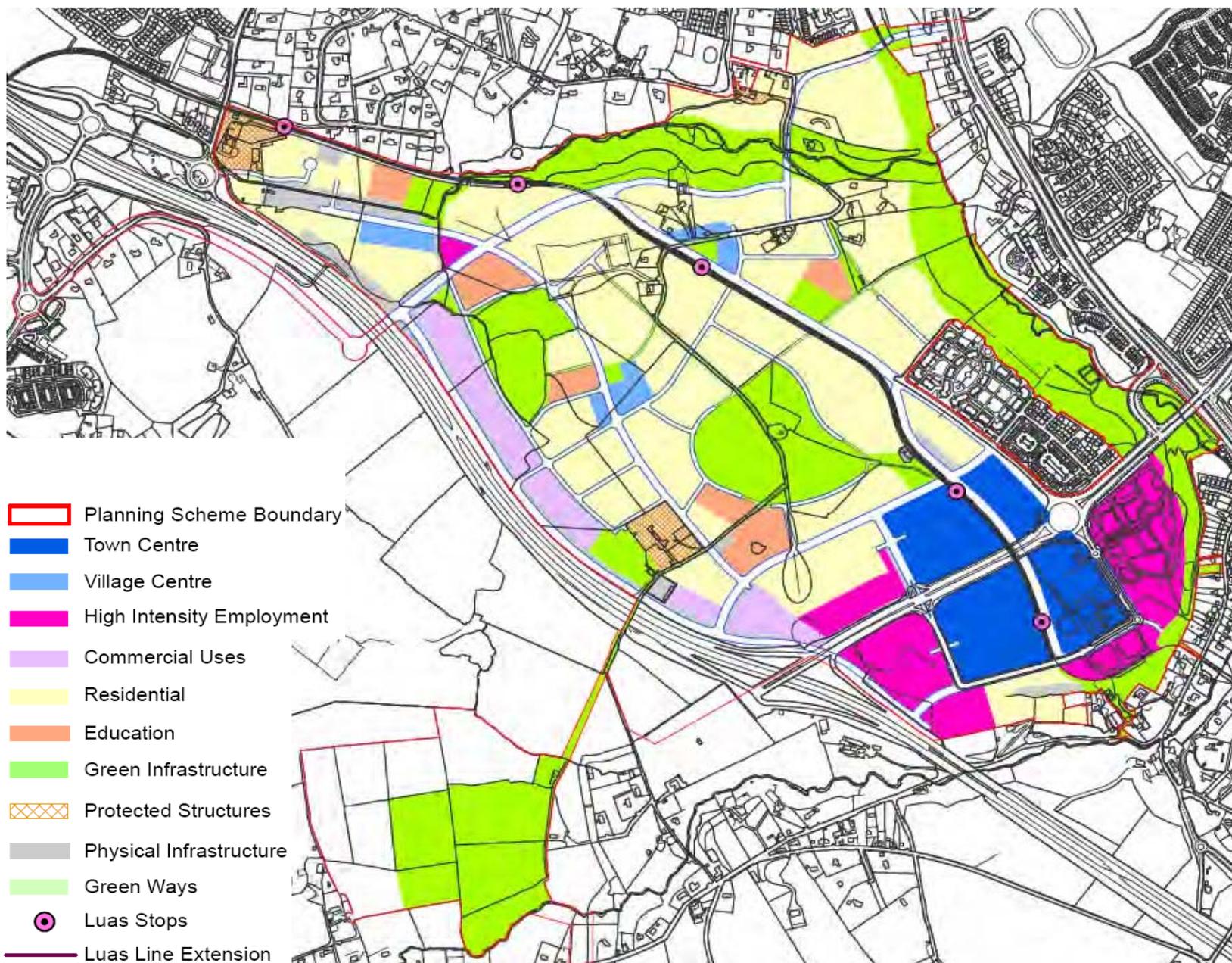
Figure 6.1 Alternative Scenario 1: *The Cherrywood Common Infrastructure Implementation Plan – Block Plan*



**USE ZONING OBJECTIVES**

- Objective A To protect and-or improve residential amenity. [Yellow box]
- Objective A1 To provide for new residential communities in accordance with approved local area plans. [Light yellow box]
- Objective A2 To provide for the creation of sustainable residential neighbourhoods and preserve and protect residential amenity. [Bright yellow box]
- Objective B To protect and improve rural amenity and to provide for the development of agriculture. [Light green box]
- Objective DC To protect, provide for and-or improve mixed-use district centre facilities. [Red box]
- Objective E To provide for economic development and employment. [Purple box]
- Objective F To preserve and provide for open space with ancillary active recreational amenities. [Light green box]
- Objective G To protect and improve high amenity areas. [Light green box]
- Objective GB To protect and enhance the open nature of lands between urban areas. [Light green box]
- Objective MH To improve, encourage and facilitate the provision and expansion of medical/hospital uses and services. [Brown box]
- Objective MTC To protect, provide for and-or improve major town centre facilities. [Cyan box]
- Objective NC To protect, provide for and-or improve mixed-use neighbourhood centre facilities. [Orange box]
- Objective OE To provide for office and enterprise development. [Light blue box]

**Figure 6.2 Alternative Scenario 2: 2010-2016 County Development Plan zonings**



**Figure 6.3 Alternative Scenario 4: *The Planning Scheme Primary Land Uses Map***

## Section 7 Evaluation of Alternative Development Scenarios

### 7.1 Introduction

The objective of this section is to determine the relative merits of four alternative scenarios for accommodating future growth at the SDZ lands in Cherrywood. This determination sought to understand whether each alternative was likely to improve, conflict with or have a neutral interaction with the receiving environment.

### 7.2 Methodology

#### 7.2.1 Use of SEOs

Scenarios are evaluated in a succinct and focused way for environmental effects against both the existing environment and Strategic Environmental Objectives (SEOs). Planning pros and cons which were identified by the Planning Team provided alongside the environmental effects for each scenario.

In order to comply with the SEA Directive SEOs have been grouped under relevant parent components such as *water* and *landscape*. Based on an understanding of the existing and emerging environmental conditions in Cherrywood a series of SEOs were identified and developed in order to assess the likely significant environmental effects which would be caused by implementation of each of the four alternative scenarios described in Section 6.

Table 7.1 brings together all the SEOs which have been developed for the SEA.

#### 7.2.2 Interactions and Effects

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 alternative scenarios 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 SEO likely to be affected - in this instance 'to ensure compliance with the Habitats Directive with regard to the protection of Natura 2000 Sites and Annexed habitats and species'<sup>51</sup>.

The interactions identified are reflective of likely significant environmental effects<sup>52</sup>;

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the environmental component to which the SEO relates.
2. Interactions that would probably conflict with the status of an SEO and would be unlikely to be mitigated would be likely to result in a significant negative effect on the environmental component to which the SEO relates.
3. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in potential significant negative effects however these effects would be likely to be mitigated by measures which have been integrated into the Planning Scheme.

#### 7.2.3 Significance

The degree of significance of effects occurring cannot be fully determined at this level of decision making due to the lack of exact detail available with regard to the type or scale of development that will be permitted under the Planning Scheme.

<sup>51</sup> 'Annexed habitats and species' refers to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>52</sup> These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects. Cumulative effects include those which could arise in combination with other strategic actions including those identified in Sections 2 and 5 of this Report.

For archaeology for example; due to the high concentration of archaeology in association with high level of development creates the potential for impacts upon archaeology, if unmitigated. The mitigation measures relating to archaeology identified in Section 9 of this report have been integrated into the Planning Scheme to mitigate potential impacts. Significant residual impacts will comprise impacts upon setting, the context of monuments and unquantifiable effects upon unknown archaeology.

For landscape for example; the Planning Scheme will result in a permanent change to the appearance and character of the site and the surroundings. The quality of individual spaces within the public realm and the appearance of individual buildings or schemes cannot be predicted because this will depend on the skill of the designers involved. However, on the basis of the Planning Scheme as currently prepared it can be ascertained with a high level of certainty that the residual effects of the project will be as identified.

**Table 7.1 Strategic Environmental Objectives<sup>54</sup>**

SEO Code	SEO
<b>B1</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species <sup>53</sup>
<b>B2</b>	To ensure 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 - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
<b>B3</b>	To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal act
<b>HH1</b>	To protect human health from exposure to incompatible landuses
<b>S1</b>	To avoid damage to the hydrogeological and ecological function of the soil resource in Cherrywood
<b>W1</b>	To maintain and improve, where possible, the quality and status of surface waters
<b>W2</b>	To prevent pollution and contamination of ground water
<b>W3</b>	To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)
<b>M1</b>	To serve new development with adequate and appropriate waste water treatment
<b>M2</b>	To serve new development with adequate drinking water that is both wholesome and clean
<b>C1</b>	To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport
<b>CH1</b>	To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context
<b>CH2</b>	To protect as appropriate architectural heritage including entries to the Record of Protected Structures and their context
<b>L1</b>	To minimise significant adverse visual impacts within and adjacent to the Planning Scheme area

**Table 7.2 Criteria for appraising the effect of Alternatives & Planning Scheme provisions on SEOs**

Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
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<sup>53</sup> 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>54</sup> See Section 5.1 for a description of Strategic Environmental Objectives.

## 7.3 Evaluation of Alternative Scenarios<sup>55</sup>

### 7.3.1 Alternative Scenario 1: *The Cherrywood Common Infrastructure Implementation Plan*

#### 7.3.1.1 Environmental Effects

##### Likely to Improve Status of SEOs

By providing 'Passive Open Space' zoning in certain locations Scenario 1 would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This zoning would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage<sup>56</sup>.

This Scenario contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for development adjacent to the Luas and other public transport routes and by providing for social infrastructure<sup>57</sup>.

##### Potential Conflict with status of SEOs

Scenario 1 potentially conflicts with the status of habitats, species and ecological connectivity because of the population provided for by this scenario. In addition potential conflicts would arise due to the footprint of development<sup>58</sup>.

This Scenario potentially conflicts with water services provision due to the magnitude of development proposed<sup>59</sup>.

Due to the mix and extent of uses this Scenario potentially conflicts with efforts to achieve sustainable mobility<sup>60</sup>.

Archaeological, architectural and landscape considerations would be considered on a site by site, application by application basis under this Scenario thereby providing the potential for cumulative adverse effects upon these environmental components<sup>61</sup>.

There would be potential conflicts with flood risk management and water quality due to new development in areas such as the north western corner of the SDZ lands<sup>62</sup>.

There would be potential conflicts with the status of groundwater and the function of soil<sup>63</sup>.

There would be potential conflicts with human health as a result of exposure to noise levels along the M50<sup>64</sup>.

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<sup>55</sup> Footnotes like this are used in this section in order to identify instances where interactions between the relevant Scenario and the relevant SEOs occur. The nature of these interactions is identified on Table 7.3.

<sup>56</sup> SEOs B1 B2 B3 W1 W3 L1 and CH1

<sup>57</sup> SEO C1

<sup>58</sup> SEOs B1 B2 and B3

<sup>59</sup> SEOs M1 and M2

<sup>60</sup> SEO C1

<sup>61</sup> SEOs L1 CH1 and CH2

<sup>62</sup> SEOs W1 and W3

<sup>63</sup> SEOs S1 and W2

<sup>64</sup> SEO HH1

### 7.3.1.2 Planning Effects

#### Pros

- This plan sets out the required infrastructure for the area based on a master plan, which transcended land ownership and is cognisant of the principles of good urban design and planning.
- Carrying capacity of the lands and the required infrastructure set out.
- Clear vision provides certainty to the markets.
- Scale and form of the proposed development area is set out in detail.
- Provides for schools, open space and other social infrastructure.
- Phased approach based on the infrastructure required for each zone.

#### Cons

- Excessive retail provision in the form of showrooms and retail services which are contrary to the Retail Strategy for the Greater Dublin Area 2008-2016 and the County Development Plan 2010-2016.
- Excessive focus on apartments.
- Plan was made at the peak of the property boom and infrastructure requirements reflect this.

## 7.3.2 Alternative Scenario 2: 2010-2016 County Development Plan zonings

### 7.3.2.1 Environmental Effects

#### Likely to Improve Status of SEOs

By providing 'Objective G' zoning in certain locations Scenario 2 would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This zoning would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage<sup>65</sup>.

This Scenario contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for development adjacent to the Luas and other public transport routes<sup>66</sup>.

#### Potential Conflict with status of SEOs

Scenario 2 potentially conflicts with the status of habitats, species and ecological connectivity because of the footprint of development provided - less conflict than Scenario 1 as likely population would be lower<sup>67</sup>.

This Scenario potentially conflicts with water services provision and water services infrastructure and capacity would be needed to ensure the mitigation of potential conflicts<sup>68</sup>.

Due to potentially fragmented or isolated development which has inadequate connectivity and legibility and the lack of planned social aspects, this Scenario potentially conflicts with efforts to achieve sustainable mobility<sup>69</sup>.

Archaeological, architectural and landscape considerations would be considered on a site by site, application by application basis under this scenario thereby providing the potential for cumulative adverse effects upon these environmental components<sup>70</sup>.

<sup>65</sup> SEOs B1 B2 B3 W1 W3 L1 and CH1

<sup>66</sup> SEO C1

<sup>67</sup> SEOs B1 B2 and B3

<sup>68</sup> SEOs M1 and M2

<sup>69</sup> SEO C1

<sup>70</sup> SEOs L1 CH1 and CH2

There would be potential conflicts with flood risk management and water quality due to new development in areas such as the north western corner of the SDZ lands<sup>71</sup>.

There would be potential conflicts with the status of groundwater and the function of soil<sup>72</sup>.

There would be potential conflicts with human health as a result of exposure to noise levels along the M50<sup>73</sup>.

### 7.3.2.2 Planning Effects

#### Pros

- Development on all the SDZ lands except A1 zone<sup>74</sup> can go ahead assessed on a case-by-case basis.

#### Cons

- No overall vision for the future of the SDZ development lands, this may reduce the market confidence in the area and discourage investment.
- Development will continue to be assessed on a site-by-site basis without an agreed masterplan, potentially leading to fragmented or isolated development, which has inadequate connectivity and legibility. Although cumulative environmental effects were considered at a county level as part of the Dún Laoghaire-Rathdown County Development Plan 2010-2016, cumulative effects would have the potential to occur at the Cherrywood lands.
- Lack of planning of social infrastructure including schools and public open space.

## 7.3.3 Alternative Scenario 3: *Developers'/Landowners' submissions, January 2011*

### 7.3.3.1 Environmental Effects

#### Likely to Improve Status of SEOs

By providing for a reduced quantum of development in certain locations Scenario 3 would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This quantum would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage<sup>75</sup>.

This Scenario contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for development adjacent to the Luas and other public transport routes<sup>76</sup>.

#### Potential Conflict with status of SEOs

Scenario 3 potentially conflicts with the status of habitats, species, ecological connectivity and water quality protection as well as flood risk management because of the footprint of development especially in certain areas adjacent to the Carrickmines / Loughlinstown Rivers<sup>77</sup>.

This Scenario potentially conflicts with water services provision and water services infrastructure and capacity would be needed to ensure the mitigation of potential conflicts<sup>78</sup>.

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<sup>71</sup> SEOs W1 and W3

<sup>72</sup> SEOs S1 and W2

<sup>73</sup> SEO HH1

<sup>74</sup> A1 zones requires a Local Area Plan.

<sup>75</sup> SEOs B1 B2 B3 W1 W3 L1 and CH1

<sup>76</sup> SEO C1

<sup>77</sup> SEOs B1 B2 B3 W1 and W3

By providing for a reduced quantum of development in certain locations this scenario would reduce the viability of the Luas, which was planned on higher residential figures, this Scenario potentially conflicts with efforts to achieve sustainable mobility<sup>79</sup>.

Archaeological, architectural and landscape considerations would be considered on a site by site, application by application basis under this scenario thereby providing the potential for cumulative adverse effects upon these environmental components<sup>80</sup>.

There would be potential conflicts with the status of groundwater and the function of soil<sup>81</sup>.

There would be potential conflicts with human health as a result of exposure to noise levels along the M50<sup>82</sup>.

### 7.3.3.2 Planning Effects

#### Pros

- Flexible plan responsive to markets, particularly in terms of provision of more suburban type residential developments.
- Many developments are ready to go based on existing infrastructure and lower growth projections for neighbouring areas and this existing infrastructure should be used to capacity in order to kick start development.

#### Cons

- Lack of agreement among developers as to the type of plan they want – some prefer an LAP, others Planning Scheme and others multiple Planning Schemes.
- Don't want to invest in further infrastructure and each developer argues that they are ready to go based on existing infrastructure already in place. If each developer started immediately there would not be enough infrastructure to accommodate this.
- Many of the developers' submissions lack planning of social infrastructure including schools and public open space.
- Reduced quantum of residential provided while on the other hand increased quantum of retail development, such that the quantum is excessive and as there is a mismatch between population and retail provision. Not an efficient use of the SDZ lands and this would impact on the viability of the Luas, which was planned based on higher residential figures.
- Lack of road link above grade between north and south of Wyattville Link Road, which will reduce connectivity between both sides and put pressure on at grade junctions.
- Provision of a large quantum of retail warehousing, retail club and sports retail proposed would impact on established retail warehousing at the Park Carrickmines, contrary to County Development Plan 2010-2016 Policy (Section 7.3.11) and regional policy.
- Development of an office based business park without any residential development would mean that one area would be dead after 6pm and at weekends.
- There is an inadequate provision of houses and duplexes across the plan area. By removing residential development in the proposed town centre this will reduce the capacity of lands in other parts of the plan area to provide for these typologies.
- A reduction of the provision of residential development across land holdings and the provision of more suburban typologies, would reduce the carrying capacity of the lands overall and therefore shrink the size of the town centre and other village centres.
- The RPA have indicated that a significant reduction in residential numbers will impact on the viability of the Luas.

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<sup>78</sup> SEOs M1 and M2

<sup>79</sup> SEO C1

<sup>80</sup> SEOs L1 CH1 and CH2

<sup>81</sup> SEOs S1 and W2

<sup>82</sup> SEO HH1

### 7.3.4 Alternative Scenario 4: *The Planning Scheme*

#### 7.3.4.1 Environmental Effects

##### Likely to Improve Status of SEOs

By providing Green Infrastructure uses in stream valleys along the northern, eastern and south-eastern boundaries of the site, Scenario 4 would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. The Green Infrastructure uses would also contribute towards the minimisation of impacts upon visual sensitivities, archaeological heritage and groundwater status and the protection of soil functions<sup>83</sup>.

This Scenario contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for: considered uses, densities and configurations and development adjacent to the Luas and other public transport routes; Greenways; and social and physical infrastructure<sup>84</sup>.

Commercial and Employment Uses along the M50 contribute towards the protection of human health<sup>85</sup>.

Protected Structures Designations have been identified across the site. These will contribute towards the protection of architectural heritage<sup>86</sup>.

##### Potential Conflict with status of SEOs

Although under Scenario 4 potential conflicts exist, the integration of environmental considerations into the Planning Scheme minimises conflicts with the status of habitats, species, ecological connectivity, water quality protection, groundwater status and soil function as well as flood risk management and visual and cultural sensitivities<sup>87</sup>.

This Scenario potentially conflicts with water services provision and water services infrastructure and capacity would be needed to ensure the mitigation of potential conflicts<sup>88</sup>.

There would be potential conflicts with the status of groundwater and the function of soil<sup>89</sup>.

Scenario 4 would result in the least amount of potential conflicts with human health as a result of exposure to noise levels and these would be likely to be localised<sup>90</sup>.

#### 7.3.4.2 Planning Effects

##### Pros

- The Planning Scheme accords with higher level Plans/Strategies with regard to strategic development that is coordinated with local authorities, public authorities and other bodies as appropriate.
- The plan accords with the hierarchy set out in the County Development Plan 2010-2016.
- The plan is informed by the natural and man-made heritage, topography, views, flooding issues, and this is married with an appropriate open space network, appropriate buffering of sensitive areas to form a plan for a sustainable town.

<sup>83</sup> SEOs B1 B2 B3 W1 W3 L1 CH1 S1 and W2

<sup>84</sup> SEO C1

<sup>85</sup> SEO HH1

<sup>86</sup> SEO CH2

<sup>87</sup> SEOs B1 B2 B3 W1 W3 CH1 CH2 L1 S1 and W2

<sup>88</sup> SEOs M1 and M2

<sup>89</sup> SEOs S1 and W2

<sup>90</sup> SEO HH1

- The Plan is based on infrastructural capacity studies, which shows that the lands have the capacity to carry the proposed development.
- Clear policies and objectives are provided which indicates overall quantum of development, land uses, maximum and minimum densities and plot ratios.
- The Planning Scheme provides policies and objectives in relation to the overall design of the proposed development, including the maximum heights, the external finishes of structures and the general appearance and design.
- The Planning Scheme provides coherent policies and objective relating to transportation, including public transportation, the roads layout, the provision of parking spaces and traffic management.
- The Planning Scheme provides policies and objective relating to the provision of services on the lands, including the provision of waste and sewerage facilities and water, electricity and telecommunications services and gas infrastructure.
- The Planning Scheme provides policies and objective relating to minimising any adverse effects on the environment, including the natural and built environment, and on the amenities of the area.
- The Planning Scheme provides policies and objective relating to the provision of amenities, facilities and services for the community, including schools, crèches and other education and childcare services.
- The provision of social and physical infrastructure is phased with development.
- Fast track of planning applications once the Final Planning Scheme is adopted.
- Clarity on long term vision as the life of a Planning Scheme is different to County Development Plan.

#### Cons

- Due to the statutory process, the Planning Scheme cannot facilitate development immediately.
- Amendments to the approved Planning Scheme are time consuming.

### **7.3.5 Evaluation against SEOs**

The table overleaf provides an evaluation of each of the alternative scenarios for the development of Cherrywood against the Strategic Environmental Objectives (SEOs).

**Table 7.3 Evaluation of Alternative Scenarios against SEOs**

	Likely to <b>Improve</b> status of SEOs		Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs - would be mitigated		
	<b>More Improvement</b>	<b>Less Improvement</b>		<b>Least Potential Conflict</b>	<b>Potential Conflict</b>	<b>Most Potential Conflict</b>
<p><b>Alternative Scenario 1</b></p> <p>The Cherrywood Common Infrastructure Implementation Plan</p>		<p><b>B1 B2 B3 W1 W3 L1 CH1</b> (by providing 'Passive Open Space' zoning in certain locations this scenario would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This zoning would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage.)</p> <p><b>C1</b> (contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for development adjacent to the Luas and other public transport routes and by providing for social infrastructure)</p>		<p><b>W1 W3</b> (potential conflicts with flood risk management - flood risk in Priorsland is not addressed - and water quality due to new development in areas such as the north western corner of the SDZ lands)</p>	<p><b>C1</b> (potential conflicts due to mix and extent of uses)</p> <p><b>L1 CH1 CH2</b> (archaeological, architectural and landscape considerations considered on a site by site; application by application basis)</p> <p><b>S1 W2</b> (potential conflicts with the status of groundwater and with the function of soil)</p>	<p><b>B1 B2 B3</b> (potential conflicts with the status of habitats, species and ecological connectivity because of the population provided for by this scenario. In addition potential conflicts would arise due to the footprint of development)</p> <p><b>M1 M2</b> (most potential conflict with water services provision due to the magnitude of development proposed)</p> <p><b>HH1</b> (conflict as a result of exposure to noise levels along the M50)</p>

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<p><b>Alternative Scenario 2</b></p> <p>County Development Plan 2010-2016 zonings</p>		<p><b>B1 B2 B3 W1 W3 L1 CH1</b> (by providing 'Objective G' zoning in certain locations this scenario would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This zoning would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage)</p> <p><b>C1</b> (contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for development adjacent to the Luas and other public transport routes)</p>		<p><b>W1 W3</b> (potential conflicts with flood risk management - flood risk in Priorsland is not addressed - and water quality due to new development in areas such as the north western corner of the SDZ lands)</p>	<p><b>B1 B2 B3</b> (potential conflicts with the status of habitats, species and ecological connectivity because of the footprint - less conflict than Scenario 1 as likely population would be lower)</p> <p><b>M1 M2</b> (water services infrastructure and capacity would be needed to ensure the mitigation of potential conflicts)</p> <p><b>L1 CH1 CH2</b> (archaeological, architectural and landscape considerations considered on a site by site; application by application basis)</p> <p><b>S1 W2</b> (potential conflicts with the status of groundwater and with the function of soil)</p>	<p><b>C1</b> (potential conflicts due to potentially fragmented or isolated development which has inadequate connectivity and legibility and lack of planned social aspects)</p> <p><b>HH1</b> (conflict as a result of exposure to noise levels along the M50)</p>
<p><b>Alternative Scenario 3</b></p> <p>Developers'/Landowners' submissions, January 2011</p>		<p><b>B1 B2 B3 W1 W3 L1 CH1</b> (by providing for a reduced quantum of development in certain locations this scenario would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This quantum would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage)</p> <p><b>C1</b> (contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for development adjacent to the Luas and other public transport routes)</p>			<p><b>S1 W2</b> (potential conflicts with the status of groundwater and with the function of soil)</p> <p><b>M1 M2</b> (water services infrastructure and capacity would be needed to ensure that potential conflicts are mitigated)</p> <p><b>L1 CH1 CH2</b> (archaeological, architectural and landscape considerations considered on a site by site; application by application basis)</p>	<p><b>B1 B2 B3 W1 W3</b> (potential conflicts with the status of habitats, species, ecological connectivity and water quality protection as well as flood risk management - flood risk in Priorsland is not addressed - because of the footprint of development especially in certain areas adjacent to the Carrickmines / Loughlinstown Rivers)</p> <p><b>C1</b> (by providing for a reduced quantum of development in certain locations this scenario would reduce the viability of the Luas, which was planned on higher residential figures)</p> <p><b>HH1</b> (conflict as a result of exposure to noise levels along the M50)</p>

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<p><b>Alternative Scenario 4</b></p> <p>The Planning Scheme</p>	<p><b>B1 B2 B3 W1 W3 L1 CH1 S1 W2</b> (by providing Green Infrastructure uses in stream valleys along the northern, eastern and south-eastern boundaries of the site and in the centre of the site, this scenario would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. The Green Infrastructure uses would also contribute towards the minimisation of impacts upon visual sensitivities, archaeological heritage and groundwater status and the protection of soil functions)</p> <p><b>C1</b> (contributes towards maximising the uptake in smarter, more sustainable modes of transport by providing for: considered uses, densities and configurations and development adjacent to the Luas and other public transport routes; Greenways; and social and physical infrastructure. This scenario does not conflict with SEO C1)</p> <p><b>HH1</b> (reduces exposure to noise levels through generally providing for non-residential uses along the M50)</p> <p><b>CH2</b> (protects architectural heritage, identifying Protected Structure designations)</p>			<p><b>B1 B2 B3 W1 W3 CH1 CH2 L1 S1 W2</b> (although potential conflicts exist, the integration of environmental considerations into the Planning Scheme minimises conflicts with the status of habitats, species, ecological connectivity, water quality protection, groundwater status and soil function as well as flood risk management and visual and cultural sensitivities)</p> <p><b>HH1</b> (least potential conflict as a result of exposure to noise levels; localised)</p>	<p><b>M1 M2</b> (water services infrastructure and capacity will be needed to ensure that potential conflicts are mitigated)</p>
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### **7.3.6 The Selected Alternative Development Scenario**

The Alternative Scenario for the development of Cherrywood which has emerged from the planning process is Scenario 4 – this Scenario contributes towards the protection of the environment and conforms with high level planning objectives.

By complying with appropriate mitigation measures - including those which have been integrated into the Planning Scheme - potential adverse environmental effects which could arise as a result of implementing this scenario would be likely to be avoided, reduced or offset.

Alternative Scenario 4 was developed by the Planning Team and made as the Planning Scheme by the Elected Members having regard to both:

1. The environmental effects which were identified by the SEA and are detailed above; and
2. Planning - including social and economic - effects which are identified alongside environmental effects above.

In April 2014, An Bord Pleanála decided to approve the Planning Scheme for a variety of reasons, subject to a number of modifications – none of these modifications would be likely to result in significant environmental effects above those envisaged by the original assessment.

Section 9.3 and Figure 9.1 captures how the development of the Primary Land Uses Map for the Planning Scheme was informed by environmental sensitivities.

## Section 8 Evaluation of Planning Scheme Provisions

### 8.1 Methodology

This section evaluates the provisions of the Planning Scheme. The description of the environmental baseline together with the maps provided in Section 4 of this report is used for this purpose. Strategic Environmental Objectives (SEOs), identified overleaf, are also used.

The provisions of the Planning Scheme are evaluated using compatibility criteria (see Table 8.1 below) in order to determine how they would be likely to affect the status of the SEOs. The SEOs and the provisions of the Planning Scheme 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 SEO likely to be affected - in this instance 'to ensure compliance with the Habitats Directive with regard to the protection of Natura 2000 Sites and Annexed habitats and species'<sup>91</sup>.

The interactions identified are reflective of likely significant environmental effects<sup>92</sup>;

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the environmental component to which the SEO relates.
2. Interactions that would probably conflict with the status of an SEO and would be unlikely to be mitigated would be likely to result in a significant negative effect on the environmental component to which the SEO relates.
3. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in potential significant negative effects however these effects would be likely to be mitigated by measures which have been integrated into the Planning Scheme.

**Table 8.1 Criteria for appraising the effect of Alternatives & Planning Scheme provisions on SEOs**

Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
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Mitigation measures to prevent or reduce significant adverse effects posed by the Planning Scheme are identified in Section 9 - these have been integrated into the Scheme. This mitigation is apparent with regard to both the development of the Primary Land Use map (see Section 9.3 and Figure 9.1) and the inclusion of objectives that will contribute towards the protection of environmental components (see the objectives outlined in subsections below and identified on Table 9.1 in Section 9).

<sup>91</sup> 'Annexed habitats and species' refers to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>92</sup> These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

**Table 8.2 Strategic Environmental Objectives<sup>94</sup>**

SEO Code	SEO
<b>B1</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species <sup>93</sup>
<b>B2</b>	To ensure 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 - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
<b>B3</b>	To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal act
<b>HH1</b>	To protect human health from exposure to incompatible landuses
<b>S1</b>	To avoid damage to the hydrogeological and ecological function of the soil resource in Cherrywood
<b>W1</b>	To maintain and improve, where possible, the quality and status of surface waters
<b>W2</b>	To prevent pollution and contamination of ground water
<b>W3</b>	To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)
<b>M1</b>	To serve new development with adequate and appropriate waste water treatment
<b>M2</b>	To serve new development with adequate drinking water that is both wholesome and clean
<b>C1</b>	To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport
<b>CH1</b>	To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context
<b>CH2</b>	To protect as appropriate architectural heritage including entries to the Record of Protected Structures and their context
<b>L1</b>	To minimise significant adverse visual impacts within and adjacent to the Planning Scheme area

## 8.2 Determination of Potential Impacts

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 the mitigation measures which have emerged through both the AA and SEA processes and which have been integrated into the Planning Scheme.

## 8.3 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.

<sup>93</sup> 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>94</sup> See Section 5.1 for a description of Strategic Environmental Objectives.

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

## **8.4 Appropriate Assessment and Flood Risk Assessment**

The AA Screening process that was undertaken alongside the preparation of the Planning Scheme concluded that no Natura 2000 Sites are deemed to be at risk of likely significant effects of implementing the Scheme.

A detailed flood risk assessment was carried out on all significant watercourses in the SDZ which identified out of bank flooding, for a flood event greater than the 1 in 100 year flood event, in six general locations in the SDZ. The Council identified only one of these floodplain locations where development is being considered, namely in Priorsland. To accord with the Flood Guidelines a more detailed flood risk assessment and management plan<sup>95</sup> was completed for the Priorsland area. The management plan identified measures to manage the flood risk in this area (see also Section 4.6.7).

The preparation of the Planning Scheme, SEA, AA and FRA has taken place concurrently and the findings of the AA and FRA have informed both the Planning Scheme and the SEA.

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<sup>95</sup> RPS for Dún Laoghaire-Rathdown County Council (2012) *Flood Risk Assessment and Management Study at Priorsland, Carrickmines*

## 8.5 Residual Adverse Effects

Section 9 outlines the measures that will mitigate the potential effects that are detailed under the subsections below. Significant residual adverse effects likely to occur - considering the extent of detail provided by the Planning Scheme and assuming that all mitigation measures are complied with by development - are identified for each of the environmental components below:

Environmental Component	Significant Residual Adverse Effects
Biodiversity and Flora and Fauna	Loss of an extent of non-protected habitats and open ground arising from the replacement of semi-natural land covers with artificial surfaces
Population and Human Health	None
Soil	Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces
Water	Fluvial and pluvial flood related risks remain due to uncertainty with regard to extreme weather events
Air and Climatic Factors	None
Material Assets (Water Services)	None
Architectural Heritage	Potential alteration to the context and setting of architectural heritage (Protected Structures) however these will occur in compliance with legislation
Archaeological Heritage	Potential alteration to the context and setting of archaeological heritage (Recorded Monuments) however this will occur in compliance with legislation Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Planning Scheme
Landscape (Visual) <sup>96</sup>	Interrelationship with alteration to the context and setting of areas of cultural heritage A local change in the appearance of panoramic vistas from elevated areas to the north-east and south-west within the larger landscape area.

<sup>96</sup> Once completed, the Planning Scheme will result in a permanent change to the appearance and character of the site and the surroundings. The quality of individual spaces within the public realm and the appearance of individual buildings or schemes cannot be predicted because this will depend on the skill of the designers involved. However, on the basis of the planning scheme as currently prepared it can be ascertained with a high level of certainty that the residual effects of the project will be as identified.

Note that:

- The proposed development will not impinge the skyline of panoramic views towards Killiney Hill or the Coast in the distance. The appearance and character of the foreground and middle distance will change as open areas become developed. Views from this area are intermittent.
- The proposed development is over 2 km from this viewing point and will not impinge the skyline of panoramic views towards the Wicklow Mountains or in the distance. The appearance and character of the middle distance will change as open areas become developed. Views become increasingly screened and/or intermittent by buildings and trees from closer viewing positions further south-west along the Wyattville road and associated links and bridges.
- On the basis of an evaluation of the effects of existing developments within the Planning Scheme area it appears that it will be possible to maintain visual connections to surrounding skyline as well as coastal and upland features that surround the location of the Planning Scheme.

Table 8.3 Presence of 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	No
Soil				Yes	No	Yes	No	No
Water					No	Yes	No	No
Air and Climatic factors						Yes	No	No
Material assets							Yes	Yes
Cultural heritage								Yes
Landscape								

## 8.6 Chapter 1: Introduction, Context, Strategy and Purpose

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Vision</b>				
<p>The overarching vision for the Planning Scheme is:</p> <ul style="list-style-type: none"> <li>To create a sustainable place with a rich urban diversity, which respects its historical and natural setting while also conveying innovation and creativity;</li> <li>To spatially develop a cohesive and diverse community with a strong identity and environmental integrity;</li> <li>To contribute to the economic growth of the county through the development of a vibrant economic community anchored around the Town Centre; and</li> <li>To provide a safe and friendly environment where people can live, work and play within an envelope of sustainable, integrated transport with a primacy of soft modes of transport throughout.</li> </ul>	B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1 HH1		B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2	
<b>Principles</b>				
<p>The main principles guiding the future development of Cherrywood are:</p> <ul style="list-style-type: none"> <li>To promote the growth of Cherrywood that enhances and supports balanced sustainable growth in the greater Dublin Region and does not undermine the vitality and viability of other areas in the County and the Region;</li> <li>To create the framework for the development of a sustainable town and three villages with a supporting range of uses for the resident, working and visiting population;</li> <li>To link the area to its immediate hinterland and adjoining communities by restoring connectivity that has been eroded by major roads;</li> <li>To work with the landscape by designing a form that is specific to Cherrywood, with a network of places each responding to its setting, landscape and climate;</li> <li>To balance the employment, commercial and retail base of Cherrywood with the future residential growth of the plan area; and</li> <li>To create an environment that promotes / facilitates internal pedestrian and cycle movement meeting the requirements of Smarter Travel.</li> </ul>	B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1 HH1		B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2	
<b>Purpose</b>				
<p>The purpose of the Planning Scheme is to set out the form, scale and nature of development and supporting infrastructure that will enable the delivery of smart growth that is economically sound, environmentally friendly, and supportive of healthy communities - growth that enhances quality of life.</p> <p>Central to the Scheme will be Cherrywood Town Centre. This has been designated as a District Centre under the Retail Strategy for the Greater Dublin Area 2008-2016, providing up to 35,000sq.m of net lettable retail floorspace. There will also be three Village Centres: Priorsland, Tully Village and Lehaunstown, each with an appropriate range and scale of retail, commercial, community and other facilities.</p> <p>The proposed infrastructure within Cherrywood has the potential to accommodate a resident population of 20,800 and a working population of 17,500.</p>	B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1 HH1		B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2	
<b>Commentary:</b>				
The evaluation of the Vision, Principles and Purpose of the Planning Scheme reflects the evaluation of Scenario 4 provided on Table 7.3.				

## 8.7 Chapter 2: Proposed Development in Cherrywood

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>A. Nature of the Development</b>				
<p>The Planning Scheme's Primary Land Use Map 2.1 (see Figure 6.3) and the primary land use matrix in Appendix A of the Planning Scheme indicate the location of land uses within the area and the permissible uses within each.</p> <p>The primary land use matrix specifies the type of development that is permitted in principle within each land use. While this matrix is intended to inform the type of development that is permissible it will not be used as the sole reason for refusal. Other types of development that compliment the Primary Land Uses in Section 2.2.2 will be considered subject to compliance with other principles, policies and objectives of the Planning Scheme, and the current County Development Plan.</p>	B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1 HH1		B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2	
<b>Commentary:</b> The evaluation of the Nature of Development reflects the evaluation of Scenario 4 provided on Table 7.3.				
<b>B. Scale of Development</b>				
<p>The overall minimum and maximum quantum of each of the Primary Development Land Uses in this Planning Scheme is indicated in the table below (Table 2.2 in the Planning Scheme) and shown on Map 2.2 in the Planning Scheme. The Planning Scheme also further breaks down the quantum in the table below into the town and Village Centres and individual plots as well as providing site coverage standards, plot ratios, building heights and densities.</p> <p>As of February 2012 c.600 residential units had been constructed within the Cherrywood SDZ area and c. 96,000sq.m of high intensity employment floorspace had been permitted and/or developed. This has been accounted for in the overall quantum of development proposed.</p> <p>The scale of development proposed by the Planning Scheme is informed by the characteristics of each development plot and its proximity to services, amenities and the village and Town Centres. The density ranges provide for different housing typologies which are detailed in the following objectives;</p> <p>PD1 A consistent approach shall be taken to advertising for buildings or businesses along Beckett Road. Such advertising shall not be excessive in scale, particularly when viewed from the M50 motorway. Lighting in this commercial area shall be discreet and unobtrusive.</p> <p>PD2 Res1 plots have been identified for a number of reasons including topography and/or proximity to sensitive sites. Such sites shall accommodate residential development made up predominantly of houses, which have their own private gardens and no less than 2 bedrooms.</p> <p>PD3 In Res2 plots the typology shall be predominantly own door units except for areas that require higher density (those fronting the Grand Parade, Castle Street and overlooking open space).</p> <p>PD4 In Res3 and Res4 plots, where residential development is proposed as part of mixed-use development within the Town Centre or three Village Centres, a maximum 20% of units shall comprise 1-bed units, while a maximum 40% shall be 2-bed units, and a minimum 40% of units shall be of a size to comprise of 3 or more bed units.</p> <p>PD5 The floor areas of the housing units shall comply with the current County Development Plan standards and requirements. In all cases the planning application shall demonstrate that the mix of units proposed in any residential development is suitable for life long living.</p>	B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1 HH1		B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2	

Development Type	(a) Min Quantum	(b) Max Quantum	(c) Development Permitted/ Constructed Feb 2012	d=(b-c) Balance Max Future Quantum				
Town Centre Sq.m	286,894	362,909	7,247	355,662				
Village Centre Sq.m	41,855	61,625	--	61,625				
High Intensity Employment Sq.m	267,550	350,000	96,000	254,000				
Commercial Uses Sq.m	77,000*	--	--	77,000*				
Residential	5,848 units	8,336 units	600 units	7,736 units				
Education	4 primary 2 post primary	4 primary 2 post primary	--	4 primary 2 post primary				
Class One HA	27	29.7	0	29.7				
<b>Commentary:</b> Due to the level of flexibility provided, the undefined lifetime of the Planning Scheme and externally controlled economic and social conditions there is uncertainty with regard to the extent of effects occurring however scale of development provided by the Planning Scheme - including that relating to development quantum ranges - would enable the achievement of the Plan's vision and would be consistent with the the evaluation of Scenario 4 provided on Table 7.3.								
In particular, the quantum of development and plot ratios would contribute towards maximising the uptake in smarter, more sustainable modes of transport (SEO C1) and site coverage standards would contribute towards the minimisation of visual impacts (SEO L1). As part of the Planning Scheme's strategy, density objectives (PD1 to PD5) would contribute in particular towards maximising the uptake in smarter, more sustainable modes of transport (SEO C1) and minimising visual impacts (SEO L1).								
PD6 All residential development, including those in the mixed use areas of the Town Centre and the Village Centre will fulfil the social and affordable requirements of Part V of the Planning and Development Act 2000 as amended. The current Dún Laoghaire Rathdown County Development Plan 2010 has a 20% requirement for social and affordable housing. This requirement and those of subsequent County Development Plans and housing strategies will also apply to residential development in the Planning Scheme.								B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2 C1
<b>Commentary:</b> There would be no likely interaction between Objective PD6 and the status of SEOs.								
<b>C. Form of Development</b>								
Urban Form Objectives PD7 To promote the development of each area as a distinct and legible new neighbourhood with an individual character achieved through concept, design style and use of materials. In this regard a design statement referring to the character of the specific development area shall be submitted with each application. This shall have regard to the unique character of each Development Area as set out in Chapter 6.					L1 CH1 CH2 C1			B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2

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<p>PD8 Each individual neighbourhood will be locally distinct with individual features including public art and civic landmarks to form its character. It should incorporate focal points utilising views in and out of the area as identified in Section 2.11.</p> <p>PD9 To provide for principal frontages in each development plot to define strong streetscape elements, turn corners on public roads, and enclose and overlook amenity open space areas and green routes. These are identified on Map 2.4 and are indicative in length to allow for sufficient flexibility in breakages and access points.</p> <p>PD10 To require the layout of residential areas to maximise pedestrian permeability with clear, legible and direct routes for pedestrians and cyclists along anticipated desire lines, with safe edge treatment, clear sight lines at eye level and an appropriate level of passive supervision.</p> <p>PD11 To ensure that innovative building typologies are used throughout Cherrywood for life long living and that address issues of car parking, private open space, and the need for high quality residential amenity. To ensure that these buildings have a greater engagement with the varying road and green way layout.</p> <p>PD12 To ensure a sustainable built form with best practice sustainable design, construction methods and materials, which has regard to solar effect, wind tunnelling prevention and microclimate. Adaptable residential building design, which is responsive to changing technical/economic and social conditions, is generally encouraged.</p> <p>PD13 To ensure that frontage widths of individual buildings and massing allow for their successful integration into the streetscape.</p> <p>PD14 To ensure that the distinctiveness of materials is used at various scales, allowing for a coherent and high-quality built environment, with an individual palette to identify each neighbourhood. High-quality finishes are to be used in the public realm, including external elevational treatment to buildings, structures and public open space. A materials and finishes palette guide will be required post-adoption of the Planning Scheme.</p> <p>PD15 To promote the strategic design and location of bin-stores, service boxes and similar ancillary provision, including meter boxes, into the curtilage of developments or as positive design features that enhance the local streetscape and do not register as visual clutter.</p>				
<p><b>Commentary:</b> The urban form objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>• maximising the uptake in smarter, more sustainable modes of transport (SEO C1);</li> <li>• minimising visual impacts (SEO L1); and</li> <li>• minimising impacts upon archaeological and architectural heritage, including context (SEOs CH1 and CH2).</li> </ul> <p>Potential conflicts between new development and various environmental components (B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2) would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report.</p>				
<p><b>Building Set-backs Objectives</b></p> <p>PD16 To ensure that appropriate building line set backs, on street parking and privacy strips are provided for in residential and commercial development.</p> <p>PD17 To require that, where appropriate, residential streets shall have narrow, landscaped front-gardens/privacy strips to provide a buffer between private living space and the public realm, to contribute to local biodiversity, SuDS, and facilitate passive supervision. They should not adversely impact on active street frontages and should be too small to be converted into paved driveways or parking spaces.</p>	<p>B1 B2 B3 S1 W1 W2 W3 HH1 L1</p>			<p>CH1 CH2 M1 M2 C1</p>
<p><b>Commentary:</b> The urban form objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>• protecting biodiversity (SEOs B1 B2 B3);</li> <li>• protecting soil function and the status of water bodies (SEOs S1 W1 W2);</li> <li>• minimising increases in flood risk (SEO W3);</li> <li>• reducing exposure to noise levels (SEO HH1); and</li> <li>• minimising visual impacts (SEO L1).</li> </ul>				
<p><b>Skyline Objectives</b></p> <p>PD18 New developments within Cherrywood will be designed to incorporate green roofs as required in Chapter 4.</p> <p>PD19 Services on roofs will be covered and designed so as not to be visually prominent. In this regard natural ventilation of buildings will be promoted.</p>	<p>W3 L1</p>			<p>CH1 CH2 M1 M2 B1 B2 B3 S1 W1 W2 HH1 C1</p>
<p><b>Commentary:</b></p>				

<p>The skyline objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>• minimising increases in flood risk (SEO W3); and</li> <li>• minimising visual impacts (SEO L1).</li> </ul>				
<p><b>Civic Spaces Objectives</b>            PD20 Civic spaces will be fully accessible to all users, have a legible layout with clearly defined desire line routes and be composed of high quality/durable materials with a SuDs function that have a good mix of hard and soft landscaping elements.</p>	S1 W1 W2 W3 L1			CH1 CH2 M1 M2 B1 B2 B3 HH1 C1
<p><b>Commentary:</b>            The civic spaces objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>• protecting soil function and the status of water bodies (SEOs S1 W1 W2);</li> <li>• minimising increases in flood risk (SEO W3); and</li> <li>• minimising visual impacts (SEO L1).</li> </ul>				
<p><b>Building Heights Objectives</b>            PD21 To allow building height within the range of storeys identified on Map 2.3. These heights have been informed by the characteristics of each site and are the maximum permissible on each development plot.            PD22 Local landmark and feature building elements over the stated building heights are acceptable at important locations, where they contribute to the visual amenity, civic importance and legibility of the area. These buildings are identified by the use of upward modifiers in Table 2.11 and act as focal points or gateways, emphasising hierarchy and urban activity in the Town and Village Centres and public transport nodes, at locations identified in Map 2.3.            PD23 It is an objective to encourage the use of 'adaptable' ground floor residential units with a greater internal floor to ceiling heights of 4 metres, along the Grand Parade and adjacent to Cherrywood Town Centre where increased overall building heights are proposed.</p>	L1 CH1 CH2			M1 M2 B1 B2 B3 HH1 S1 W1 W2 W3 C1
<p><b>Commentary:</b>            These objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>• minimising visual impacts (SEO L1); and</li> <li>• minimising impacts upon archaeological and architectural heritage, including context (SEOs CH1 and CH2).</li> </ul>				
<p><b>Linkages Objectives</b>            PD24 To ensure that the public domain is coherent and provides linkages to the main civic and public sites, with a preference for pedestrian and cyclists. The proposed greenways and cycle path network in Map 2.5 will be clearly defined in a coherent and legible way with consistent signage and routing to give clear direction for the user. The routes through Green Infrastructure are indicative and cycling may not be suitable on some of these routes.            PD25 It is an objective to encourage direct walking routes through plazas, pocket parks and open space areas to improve linkages and enhance natural desire lines between the Town Centre and Village Centres, schools, amenity open space, neighbourhood areas and public transport.            PD26 The routes should be visually interesting and varied with a sequence of long and short views, and ideally terminated with a building of note, to give orientation and create unique places and neighbourhoods.</p>	C1			M1 M2 B1 B2 B3 HH1 S1 W1 W2 W3 L1 CH1 CH2
<p><b>Commentary:</b>            The linkages objectives would contribute towards maximising the uptake in smarter, more sustainable modes of transport (SEO C1).</p>				
<p><b>Views and Prospects Objectives</b>            PD27 It is an objective to protect and enhance views and panoramas to key local vantage points, local skylines and civic buildings in the surrounding area, and within the Planning Scheme itself. These views are identified in the SEA and consideration of significant views should inform all stages of the design process.            PD28 Views to be protected and enhanced are separated into those from certain internal vantage points to areas outside of the Planning Scheme (external), and those within the Plan area(internal). Views are not all panoramas, but include partial, intermittent and glimpsed views.            External views to be protected:</p> <ul style="list-style-type: none"> <li>• Views and general prospects towards the Coast and marine horizons; principally from Tully Church environs and from existing developments within Tullyvale, Druid Valley and parts of Bride's Glen;</li> <li>• Views and general prospects toward Killiney Hill; principally from Tully Church environs and from developments within Tullyvale and Druid Valley;</li> </ul>	L1 CH1 CH2			M1 M2 B1 B2 B3 HH1 S1 W1 W2 W3 C1

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<ul style="list-style-type: none"> <li>Views and general prospects toward Carrickgollogan and the Lead Mines Chimney principally from Tully Church environs, and from developments within Cherrywood Town centre and its environs;</li> <li>Views towards Ticknick principally from the southern end of Lehaunstown Lane, Tully Church environs and from developments within Cherrywood Town centre and its environs;</li> <li>Views and general prospects toward the Dublin and Wicklow Mountains; principally from Tully Church environs and from developments within Tully Village.</li> </ul> <p>PD29 Internal Views should also seek to ensure that principal visual axis of the public realm incorporate views towards significant landscape features within the Plan area because these enhance its character and distinctiveness. Internal views to be protected:</p> <ul style="list-style-type: none"> <li>Views from Lehaunstown Village and its environs towards Tully Church, and the Druid's Glen Buffer and Tree canopy;</li> <li>Views from adjoining development areas towards Tully Church and associated open spaces;</li> <li>Views from Tully Church to the Town Centre along Brigid's Way;</li> <li>Views towards Tully Village Open Space;</li> <li>Views towards Lehaunstown Park House from Tully Park.</li> </ul> <p>Local skyline views formed by river and stream corridors to be protected:</p> <ul style="list-style-type: none"> <li>The northern and southern edges of Druid's Glen and the Glenamuck Stream (northern section of the plan area);</li> <li>The western enclosure/side of the Cabinteely Stream (north east section of the plan area);</li> <li>The enclosure of the Loughlinstown River within the plan area (eastern section of the plan area);</li> <li>The enclosure of Bride's Glen (south-eastern section of the plan area)..</li> </ul>				
<p><b>Commentary:</b> This objective would contribute towards:</p> <ul style="list-style-type: none"> <li>minimising visual impacts (<b>SEO L1</b>); and</li> <li>minimising impacts upon archaeological and architectural heritage, including context (<b>SEOs CH1 and CH2</b>).</li> </ul>				
<p><b>Signage and Advertising Objectives</b></p> <p>PD30 Signage fascias should be designed as an integral element of the overall contemporary building façade system and consist of high quality modern/durable materials and finishes, which respect the proportions, materials and scale of the adjoining architecture.</p> <p>PD31 Commercial advertising in all formats will be strictly controlled particularly in prominent locations of topography, adjoining Major transport routes, or to the upper storeys of buildings. All advertising will be at a 'street' level and will not be visually dominant when viewed from roads and open space amenity areas.</p>	L1 CH1 CH2			M1 M2 B1 B2 B3 HH1 S1 W1 W2 W3 C1
<p><b>Commentary:</b> The signage and advertising objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>minimising visual impacts (<b>SEO L1</b>); and</li> <li>minimising impacts upon archaeological and architectural heritage, including context (<b>SEOs CH1 and CH2</b>).</li> </ul>				
<p><b>Directional Signage Objective</b></p> <p>PD32 All directional signage will be coherent and uniform. Post adoption of the Planning Scheme, a guidance document relating to wayfinding/directional signage for Cherrywood will be produced.</p>				B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2 C1
<p><b>Commentary:</b> There would be no likely interaction between Objective PD30 and the status of SEOs.</p>				
<p><b>Noise Sensitivity Objective</b></p> <p>PD33 It is an objective to require all development proposals to undertake a detailed noise impact assessment, including noise survey, prior to the lodgement of any planning application. The noise survey shall be carried out in general accordance with International Standards Organisation (ISO) 1996: 2007: Acoustics – Assessment, Description and Measurement of Environmental Noise. In residential proposals, this survey shall be undertaken for a period of not less than two weeks, and in non-residential areas it shall be undertaken for a period of not less than 1 day. The noise impact assessment shall include an assessment of the survey findings, and recommendations on mitigation and control measures to protect amenity. The noise impact assessment shall be lodged with the relevant planning application.</p>	HH1			B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 M1 M2 C1
<p><b>Commentary:</b></p>				

The noise sensitivity objective would contribute towards reducing exposure to noise levels (**SEO HH1**).

## 8.8 Chapter 3: Cultural and Built Heritage

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Archaeology Objectives</b>				
<p>H1 To comply with all of the policies of the current Dún Laoghaire-Rathdown County Development Plan relating to archaeology and heritage. In particular to preserve the archaeological heritage of the area of the Scheme and to protect and promote public access to such heritage where feasible, and to carry out an access audit by a suitably qualified person of sites in public ownership.</p> <p>H2 To require pre-application archaeological assessment by a suitably qualified Archaeologist for all planning applications in accordance with the advice of the Department of Arts, Heritage and the Gaeltacht. In cases of repeat applications or proposals for minor developments, this will not necessarily be required. In addition, Statutory Agencies will be required to carry out archaeological assessments prior to the detailed design stage of significant development as far as is practicable, in accordance with the advice of the Department of Arts, Heritage and the Gaeltacht.</p> <p>H3 To require appropriate high quality information signage for each of the entries to the Record of Monuments and Places (RMP), which 'brings the monument to life'.</p> <p>H4 To investigate the potential to provide interpretation of the rich heritage of the area and to appropriately display artefacts found in the area, including the 'Rathdown Slabs' from Tully Church in the proposed new library building in Cherrywood Town Centre or other similar location.</p> <p>H5 To locate where feasible, identified archaeological sites and monuments within open space areas.</p> <p>H6 To require a place-naming scheme which reflects the rich heritage of the Cherrywood area (see Appendix B3).</p>	<b>B1 B2 B3 W1 L1 CH1 CH2</b>			<b>S1 W2 W3 C1 HH1 M1 M2</b>
<p><b>Commentary:</b> Objective H1 encompasses a number of current County Development Plan (2010-2016) policies which would be likely to improve the status of various environmental components. Other archaeology objectives would contribute towards:</p> <ul style="list-style-type: none"> <li>• minimising visual impacts (<b>SEO L1</b>); and</li> <li>• minimising impacts upon archaeological heritage (<b>SEO CH1</b>).</li> </ul>				
<b>Objectives relating to specific Record of Monuments and Places (RMPs)</b>				
<p>H7 To improve the access to and presentation of, including appropriate information signage, the following National Monuments: Tully Church and crosses, Lehaunstown Wedge Tomb and Brenanstown Dolmen.</p> <p>H8 To include Tully Church, graveyard and high crosses within a public park, Tully Park. When the detailed layout plan is prepared for Tully Park, Tully Church and Cemetery shall have a defined boundary to protect both the Church and Cemetery which have National Architectural Value. All proposed works shall involve prior consultation with the Department of Arts, Heritage and The Gaeltacht (DoAHG).</p> <p>H9 To protect the vistas and views from/to Tully Church, graveyard and immediate environs towards Killiney Hill and Obelisk, Puck's Castle, the Lead Mines Chimney (Ballycorus), Two Rock and Three Rock Mountain as the setting to these monuments.</p> <p>H10 To maintain a visual corridor between Tully Church and Lehaunstown Castle (within Lehaunstown Park) from a point from the cross in the field to the west of Tully Church and graveyard.</p> <p>H11 To preserve the valley setting of the Brenanstown Dolmen. To facilitate improving the access to this Dolmen in consultation with the Department of Arts, Heritage and the Gaeltacht.</p> <p>H12 To maintain the integrity of Lehaunstown Castle (RMP 026-093) and to present the castle in such a way that the earlier history of the site is clear.</p>	<b>L1 CH1 CH2 S1 B1 B2 B3 W1 W2</b>			<b>W3 C1 HH1 M1 M2</b>
<b>Commentary:</b>				

Objectives H7 to H12 would contribute towards: <ul style="list-style-type: none"> <li>• minimising visual impacts (<b>SEO L1</b>);</li> <li>• minimising impacts upon archaeological heritage, including context (<b>SEO CH1</b>); and</li> <li>• indirectly towards protecting architectural heritage, ecology, soil and water resources (<b>SEOs CH2 B1 B2 B3 S1 W1 and W2</b>)</li> </ul>			
<b>Objectives from the Scheme for Architectural and Other Heritage</b>			
<p>H13 To seek an holistic approach to any development of the overall site. Proposals for the protected structure, out-building and any associated structures must form part of any application to ensure that the protected structure retains prominence on the site. Planning applications for works to restore/refurbish protected structures will not be subject to phasing requirements.</p> <p>H14 To comply with all of the policies for the protection of the Architectural Heritage in the current Dún Laoghaire-Rathdown County Development Plan, including those set out in the Development Management Section. In particular to provide appropriate protection for the protected structures in the area of the Scheme and to protect and promote where feasible public access to such protected structures.</p> <p>H15 To require an Architectural Heritage Impact Assessment by an architect or other professional with specialist knowledge of building conservation. The report should include an assessment of both works to the protected structure and the impact of new development on the character and appearance of the heritage asset.</p> <p>H16 To seek the repair and restoration of protected structures (including any associated outbuildings) in accordance with good conservation practice and the Department of Environment Heritage and Local Government (DEHLG) Conservation Guidelines, and the Cherrywood Biodiversity Plan.</p> <p>H17 To encourage compatible new uses for the protected structure, which will not detract from the architectural and historic character of the building/structure. Any works and/or extensions necessitated by proposed new use(s) to be appropriately scaled, and to be read as new, in line with current County Development Plan Policies.</p> <p>H18 To require photomontages of proposed development from key vantage points, to demonstrate the visual impact on the protected structure and historic landscape character.</p> <p>H19 To require pre-application discussions with the Conservation Officer.</p> <p>H20 To require the use of high quality materials and external elevational design.</p> <p>H21 To require the phasing of new development(s) to ensure that conservation works to the protected structure are carried out in tandem in order to secure the long term future of the heritage asset.</p> <p>H22 To require a design statement with supporting illustrative material and description of proposed development demonstrating how it has been developed having regard to the built heritage, topography, and landscape character of the site.</p> <p>H23 To require a comprehensive landscaping scheme for each site to include details of trees to be retained, replacement planting where required, and the use of soft boundaries to demarcate/define private open space. Replacement trees where required to be semi-mature native species.</p> <p>H24 To develop an integrated public realm scheme for each site which addresses elements including street furniture, hard landscaping finishes, car parking, bin storage, and services including public lighting.</p> <p>H25 To demonstrate how private open space can be successfully achieved without detracting from the wider mature landscape. This can involve making use of soft boundaries to demarcate/define private open space and the possible use of shared surfaces.</p> <p>H26 To require a visual impact assessment to determine the impact of new development on those protected structures, which border the Planning Scheme Boundary.</p> <p>H27 Development proposed on the lands that are subject of Map 3.3 'Character Areas of Protected Structures' and specifically (and only) subsection '2. Priorsland' and subsection 4'. Carrickmines Station' therein shall not be subject of the restrictions contained in section 7.2 'Sequence of Development'. In all other respects development proposed on these lands shall comply with the requirements of the Planning Scheme, including, inter alia, the requirements for the design and commissioning of a Flood Containment Zone as proposed for Development Area 3: Priorsland.</p> <p>H28 A key consideration in developing these lands will be the location and design of new access routes into and through the site, it is an objective that a route design process shall be determined with the primary considerations being the protection of the architectural and natural heritage of the site.</p>	<p><b>L1 CH1 CH2 S1 B1 B2 B3 W1 W2</b></p>		<p><b>W3 C1 HH1 M1 M2</b></p>

<p>H29 To preclude development in the immediate foreground of Glendruid to protect the setting and southern views from the house. Map 3.3 shows an indicative view to be protected to the front of Glendruid.</p> <p>H30 To seek the repair and restoration of these structures, retaining the original form and where possible materials in line with good conservation practice and the DEHLG Conservation Guidelines.</p> <p>H31 To safeguard the future of these buildings by encouraging their sympathetic adaptation.</p> <p>H32 There is potential to develop a small-scale courtyard development linked to the original buildings. The building height shall be relative to the existing complex of buildings, respect the original structures but have its own contemporary architectural language/style.</p> <p>H33 New interventions and additions should be read as such. There are two options available, either using original/local materials in an innovative contemporary way or to use their modern equivalents.</p> <p>H34 All items of heritage interest should be retained in situ. Any repairs are to be carried out using appropriate materials and in accordance with good conservation practice.</p> <p>H35 The siting of new development is to be informed by the topography and existing landscape character of the valley.</p> <p>H36 To consider the impact of development when viewed from outside the site, with particular reference to Brennanstown House (a Protected Structure), located on the opposite side of Brennanstown Road.</p> <p>H37 To ensure that any development in this area maintains an access to Brennanstown Dolmen. This is to be done in consultation with the Department of Arts, Heritage and the Gaeltacht.</p> <p>H38 Any proposed development should be appropriately sited with regard to the topography of the site, to views to and from the protected structure, including views of Glendruid from Lehaunstown Lane; to be modest in scale with a maximum of 2 storeys; to make possible use of green roof technology to mitigate visual impact and to employ screening with native tree species where appropriate to protect the amenity of the protected structure.</p> <p>H39 Any development shall be modest in height with a maximum of 2-storeys and of a scale subservient to Glendruid House. Dwellings designed as 'courtyards' which echo the way the garden was originally laid out as evidenced on Historic Maps are considered most appropriate.</p> <p>H40 Development within Character Area 1 shall be so sited and designed as to maintain Priorsland House as the primary architectural element, and the architectural coherence between the main house and associated outbuildings and stable complex shall be maintained. Development east of the primary (front) elevation of Priorsland House shall be appropriately sited and designed, having regard to views to and from the Protected Structure, and the character and quality of spaces to be created between new and existing built form.</p> <p>H41 The planting of native trees in order to enhance the visual amenity and relationship between new development and the Protected Structure shall be integrated within detailed landscape proposals.</p> <p>H42 Repair, restoration, adaptation or development of the stable yard shall ensure that its special interest character is maintained, retaining the original form, and in line with good conservation practice and the "Architectural Heritage Protection Guidelines for Planning Authorities" issues by the Department of the Arts, Heritage and the Gaeltacht (2011)</p> <p>H43 To safeguard the future of these buildings by encouraging their sympathetic adaptation without compromising their historic and architectural character.</p> <p>H44 There is potential to develop a small scale courtyard style development within the garden area to the north and linked to the original stable yard through an existing arched entrance. The building height of any such proposal shall be relative to the existing complex of buildings and the protected structures on the site.</p> <p>H45 Development shall be appropriately sited and designed having regard to views to and from the Protected Structure. The creation of new views and juxtapositions that add to the variety and texture of the setting will be encouraged. The planting of native trees in order to enhance the visual amenity and relationship between new development and the Protected Structures shall be integrated within detailed landscape proposals.</p> <p>H46 Photomontages of the proposed development within its context shall be required to demonstrate the visual impact to and from the protected structure.</p> <p>H47 In the event that the park and ride facility, as indicated in the Sandyford Industrial Estate to Cherrywood Railway Order (S.I No. 441 of 2006), is relocated as indicated on Map 8.3, the following is the appropriate approach for any development in this area: design of buildings which respond to the historic layout of the garden, as evidenced on Historic Maps; the relationship between new building and the historic garden walls, shall avoid visual,</p>				
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<p>structural or material damage to the historic walls, and employ a contemporary and imaginative design with materials chosen to complement the existing palette of materials of stones and brickwork.</p> <p>H48 To encourage compatible new uses for the protected structure, which will not detract from the architectural and historic character of the building.</p> <p>H49 To appropriately scale any works and/or extensions necessitated by proposed new use(s) and to be read as new, in line with the current County Development Plan Policies.</p> <p>H50 To seek the reinstatement of surviving associated features including parapet walls and railings from the demolished bridge and the bullnosed granite from the former platforms.</p> <p>H51 To seek an appropriate setting/curtilage and new use for the former station, that incorporates development of an appropriate scale relative to the historic complex, in order to protect the visual amenity of the Protected Structure.</p> <p>H52 To investigate ways to reflect the railway/transport heritage of the site.</p> <p>H53 To ensure that the lands between Lehaunstown Park house and the main entrance shall be maintained free from additional development and associated works.</p> <p>H54 To promote further study of this complex in order to determine its full architectural and historic significance.</p> <p>H55 To retain ancillary features including the granite boundary walls to the farm complex, the various gates and gate piers which are part of the agricultural heritage of the County, in any future development of the site.</p> <p>H56 To safeguard the future of these buildings by encouraging their sympathetic adaptation and to limit the number of new openings required. Development in this area may take the form of a new courtyard-style development of a scale subservient to Lehaunstown Park and out buildings. Consultation with historic maps could inform the layout of any such development. The building height shall relate to the complex, but in no case will the building height exceed that of the protected structure.</p> <p>H57 To require any redevelopment to respect the original structures but have its own contemporary architectural language/style, using materials which are as high in quality as those in the existing buildings.</p> <p>H58 Any proposed development in this area should not exceed more than three storeys in height. Development proposals shall demonstrate through visual impact assessment that the height, scale and massing of the development has been designed having regard to the impact on Lehaunstown Park.</p> <p>H59 Encourage the use of soft boundary treatment, to protect the historic character of the area.</p> <p>H60 To seek the repair and restoration of the Protected Structure in accordance with good conservation practice and the DoEHLG Conservation Guidelines.</p> <p>H61 To safeguard the future of the structure by encouraging its sympathetic reuse. The viaduct may be suitable for integration as part of a pedestrian route within the Planning Scheme/Luas B2 line extension.</p> <p>H62 Any proposals to reopen or reuse the structure must be sensitively designed having regard to its industrial heritage value.</p> <p>H63 To investigate ways to commemorate the industrial heritage of the site.</p> <p>H64 To retain and incorporate features such as post boxes, gates, gate piers and stone stiles, which are part of the heritage of the County in any future development.</p> <p>H65 To retain and incorporate industrial heritage features in any future development.</p> <p>H66 It is an objective to retain the gate pier in the vicinity of its current historic location, in any future development. Having regard to the condition of the cross-keeper's cottage and its location, it is acknowledged that preservation by record may be the only option available.</p>				
<p><b>Commentary:</b></p> <p>Objectives H7 to H12 would contribute towards:</p> <ul style="list-style-type: none"> <li>• minimising visual impacts (<b>SEO L1</b>);</li> <li>• minimising impacts upon architectural heritage, including context (<b>SEO CH2</b>); and</li> <li>• indirectly towards protecting archaeological heritage, ecology, soil and water resources (<b>SEOs CH1 B1 B2 B3 S1 W1 and W2</b>)</li> </ul>				

## 8.9 Chapter 4: Physical Infrastructure

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Water Supply Objectives</b>				
<p>PI 1. In common with all development in the Dublin region, development in the county is dependent on an adequate supply of water for the Dublin region. It is an objective to liaise with the Department of Environment Community and local Government (DECLG) and Dublin City Council on regional water supply availability.</p> <p>PI 2. It is an objective to reach agreement with Dublin City Council on measures to reprioritise water allocation to Rathmichael reservoir. This may also involve installation of a new strategic watermain to Shankill to reduce over-reliance on Roundwood Water Treatment Works.</p> <p>PI 3. Development beyond 4ml/day capacity in the Planning Scheme and other new developments in the supply area (including Shankill, Shanganagh and Woodbrook) will require construction of the Old Connaught Woodbrook Water Supply Scheme. It is an objective to progress this scheme which is currently awaiting approval of the DECLG.</p> <p>PI 4. It is an objective to ensure a planned approach is taken to the local distribution network within the zone to facilitate co-ordinated development. To support the use of water saving systems and landscaping. Where national standards are adopted, under the Water Services Act 2007 or otherwise, for rainwater harvesting and/or greywater recycling for use within buildings, these will be incorporated to the maximum practicable extent.</p> <p>PI 5. It is an objective to replace a short portion of critical trunk main from Bride's Glen Road at an early stage to secure supply.</p>	<p><b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1 HH1</b></p>		<p><b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</b></p>	<p><b>M1</b></p>
<p><b>Commentary:</b> Objectives PI 1 to PI 5 would contribute towards providing new development within Cherrywood with adequate drinking water of an appropriate quality (<b>SEO M2</b>).</p> <p>New water supply related works within Cherrywood would potentially conflict with various environmental components (<b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</b>) and would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report.</p> <p>Works arising outside of the Planning Scheme area as a result of providing for new development in Cherrywood including those arising as a result of the cumulative provision of development in the wider Dublin region would potentially conflict with a number of environmental components, across the wider Dublin region and beyond, including: ecology, soil function, the status of water bodies and the landscape. Some of these conflicts would be mitigated by measures contained in the Dún Laoghaire-Rathdown County Development Plan 2010-2016 while some would be mitigated by measures arising out of separate consent procedures.</p>				
<b>Surface Water Drainage Objectives</b>				
<p>PI 6. It is an objective to promote Sustainable Urban Drainage Systems (SuDS) to manage surface and groundwater regimes sustainably. The following measures are the key elements of the SuDS solution proposed for the Planning Scheme area in the public realm areas, i.e those areas not within private developments. Measures within private development sites are also listed below.</p> <p>PI 7. It is an objective to ensure that stormwater management, flood attenuation and Sustainable (Urban) Drainage Measures (SuDS), including a requirement to undertake Stormwater Audits, shall form part of the pre-planning, planning and post construction stages of any application.</p> <p>PI 8. It is an objective to ensure that SuDS measures shall be fully implemented on all sites to 1 litre per second per hectare runoff rates, unless otherwise agreed with Dún Laoghaire Rathdown County Council. In this regard solutions other than tanking systems shall be required for all developments. For larger applications Green Roofs shall be used in accordance with Dún Laoghaire-Rathdown County Council's Green Roofs Guidance Document.</p> <p>PI 9. It is an objective to ensure urban areas are designed to accommodate surface water flood flow at times of extreme events through the dual use of roads and pathways as flood conveyance channels and low value areas (parkland, car parks, large paved areas etc) used as temporary flood ponding areas.</p> <p>PI 10. It is an objective to ensure that all trees planted in/adjacent to hard paved areas (footpaths, parking areas etc) incorporate tree root structural cell systems.</p> <p>PI 11. It is an objective to ensure that predicted flooding in the Priorsland area does not pose an unacceptable</p>	<p><b>B1 B2 B3 S1 W1 W2 W3 HH1</b></p>		<p><b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</b></p>	<p><b>CH1 CH2 L1 M1 M2 C1</b></p>

<p>risk to persons or property. In this regard a flood containment zone shall be constructed in the Priorsland area by raising adjacent ground levels approx 500mm and by incorporating a large diameter (1650mm) bypass culvert.</p> <p>PI 12. It is an objective that significant foul trunk sewer infrastructure is provided within the Planning Scheme area.</p>				
<p><b>Commentary:</b> Objectives PI 6 to PI 12 would contribute towards:</p> <ul style="list-style-type: none"> <li>• minimising increases in flood risk (SEOs W3);</li> <li>• protecting human health from incompatible land uses (SEO HH1); and</li> <li>• indirectly towards the protection of biodiversity, soil function and the status of water bodies (SEOs B1 B2 B3 S1 W1 W2).</li> </ul> <p>New foul sewer related works within Cherrywood would potentially conflict with various environmental components (B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1) and would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report.</p> <p>Waste water treatment outflows at the plant in Shanganagh as a result of providing for new development in Cherrywood would potentially conflict with a number of environmental components including: ecology and the status of water bodies. Some of these conflicts would be mitigated by measures contained in the Dún Laoghaire-Rathdown County Development Plan 2010-2016 while some would be mitigated by measures arising out of separate consent procedures.</p>				
<p><b>Transportation Objectives</b></p>				
<p>PI 13. It is an objective to develop and support a culture of sustainable travel into and within the Planning Scheme.</p> <p>PI 14. It is an objective to implement the road infrastructure (including segregated pedestrian / cycle routes) proposed in this Planning Scheme to facilitate access to and within the area by all travel modes (see Map 4.5).</p> <p>PI 15. The Council will support the NRA in consultation with the NTA in implementing measures to improve the functioning of the M50/M-N11 road corridor.</p> <p>PI 16. It is an objective to support and facilitate the development of an integrated public transport network in the Planning Scheme, in association with relevant transport providers, agencies and stakeholders.</p> <p>PI 17. It is an objective to facilitate and promote the enhancement of bus services through the implementation of QBCs and bus priority measures, and by ensuring that the design and layout of neighbourhoods facilitates the expansion of bus services.</p> <p>PI 18. It is an objective to pump prime the extension of bus services and the provision of new bus services during the early stages of development in the Planning Scheme area.</p> <p>PI 19. It is an objective to construct a Transport Interchange in the vicinity of the Cherrywood Luas stop (see Map 4.6).</p> <p>PI 20. It is an objective to prioritise walking and cycling in the internal route hierarchy, to create a network of walking and cycling routes within the Planning Scheme and to improve circulation and permeability. All proposed access points, routes, mews and streets must connect logically with the existing street network to aid legibility, permeability and walkability and also must complement local user desire lines.</p> <p>PI 21. It is an objective that car parking within the Planning Scheme be controlled so as to deter car use and promote sustainable travel modes.</p> <p>PI 22. Development in the Planning Scheme shall adhere to the guidance and standards for cycle parking and associated cycling facilities for new developments set out in the current 'Dún Laoghaire-Rathdown County Council Cycling Policy' (June 2010 or as updated).</p> <p>PI 23. The Council will prepare an Area Wide Travel Plan for Planning Scheme in conjunction with the National Transport Authority and stakeholders in the area. Developers, employers and organisations in the area will be required through the planning process to work positively with others to achieve the objectives of the Plan.</p> <p>PI 24. A Travel Plan will be required for developments in the Planning Scheme that exceed the thresholds for Mobility Management Plans set out in the current County Development Plan.</p>	<p>C1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</p>	<p>M1 M2</p>
<p><b>Commentary:</b> Objectives PI 13 to PI 24 would contribute towards:</p> <ul style="list-style-type: none"> <li>• Maximising the uptake in smarter, more sustainable modes of transport (SEO C1).</li> </ul> <p>The provision of transport infrastructure under these objectives would potentially conflict with:</p> <ul style="list-style-type: none"> <li>• protecting biodiversity (SEOs B1 B2 B3);</li> </ul>				

- minimising exposure to noise levels (SEO HH1);
- protecting soil function (SEO S1);
- protecting the status of waters (SEOs W1 W2);
- minimising increases in flood risk (SEO W3);
- minimising visual impacts (SEO L1);
- minimising impacts upon archaeological and architectural heritage (SEOs CH1 CH2).

These conflicts would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report.

**Utilities and Telecoms Objectives**

<p>PI 25. An Above Ground Installation will be required near Tully Bridge to supply gas to the Planning Scheme Area. This will be provided in accordance with the phasing requirements of Table 7.10 in Chapter 7.</p> <p>PI 26. It is an objective to require applications to include communication networks at the design stage of a scheme and to provide details of the proposed network with planning applications.</p> <p>PI 27. Within this framework it is an objective to encourage locally generated renewable and low emission energy to supply a proportion of Cherrywood's energy demand. This could include a range of energy options such as district biomass, solar thermal collectors, ground thermal energy storage, and integrated energy/heating systems such as Combined Heat and Power (CHP) at development area, neighbourhood and/or block scales, and the possible establishment of one or more Energy Service Companies (ESCO).</p> <p>PI 28. It is an objective to comply with all the objectives of the current County Development Plan in relation to energy.</p> <p>PI 29. It is an objective to embrace new and innovative technologies in this field, and to support their provision within the Planning Scheme.</p> <p>PI 30. It is an objective to support technologies and end-user behaviour to drive high levels of energy efficiency in end-uses.</p> <p>PI 31. It is an objective to support and encourage sustainable energy initiatives.</p>			<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</p>	<p>M1 M2 C1</p>
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**Commentary:**

Objectives PI 25 to PI 31 make provisions relating to energy and communications infrastructure and would potentially conflict with:

- protecting biodiversity (SEOs B1 B2 B3);
- minimising exposure to noise levels (SEO HH1);
- protecting soil function (SEO S1);
- protecting the status of waters (SEOs W1 W2);
- minimising increases in flood risk (SEO W3);
- minimising visual impacts (SEO L1);
- minimising impacts upon archaeological and architectural heritage (SEOs CH1 CH2).

These conflicts would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report. Gas supply infrastructure would be required to comply with legislative requirements as relevant e.g. COMAH Regulations.

**Waste management Objective**

<p>PI 32. It is an objective that all developments will comply with the waste policy as set out in the current County Development Plan. Layouts should be designed to incorporate bring centres, refuse collection points and make provision for recycling and composting when required at suitable locations.</p>	<p>B1 B2 B3 HH1 W1 W2 S1 C1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</p>	<p>M1 M2</p>
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**Commentary:**

By requiring compliance with the waste policy set out in the County Development Plan 2010-2016, this objective would be likely to contribute towards:

- maximising the uptake in smarter, more sustainable modes of transport (SEO C1).
- protecting biodiversity (SEOs B1 B2 B3);
- protecting human health from incompatible land uses (SEO HH1); and,
- protecting the status of waters and soil function (SEOs W1 W2 S1);

Potential conflicts arising from individual developments would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report.

## 8.10 Chapter 5: Green Infrastructure

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Civic Space Objective</b>				
G11 It is an objective to require the provision of Civic Space within Cherrywood Town Centre to provide a civic setting and cater for pedestrians and the employment population. This provision shall be in line with current County Development Plan qualitative and quantitative requirements and will be set out in the preparation of the overall Urban Form Development Framework for the Cherrywood Town Centre.	<b>C1</b>			<b>B1 B2 B3 S1 W1 W2 W3 HH1 L1 CH1 CH2 M1 M2</b>
<b>Commentary:</b> Objective G11 would contribute towards maximising the uptake in smarter, more sustainable modes of transport ( <b>SEO C1</b> ).				
<b>General Green Infrastructure Objectives</b>				
G12 To require that green infrastructure provision is implemented in agreement with, and at no cost to, Dún Laoghaire-Rathdown County Council. G13 To comply with all of the policies of the current Dún Laoghaire-Rathdown County Development Plan relating to open space, biodiversity and green infrastructure, except for quantitative Class 2 open space provision. G14 To require pre-application discussions with Dún Laoghaire-Rathdown County Council in relation to all green infrastructure provision. G15 To require that the layout and orientation of residential areas ensures adequate levels of sunlight and good accessibility to all open space, in accordance with the requirements of Chapter 2.8. G16 To require that open space is designed in compliance with current relevant national, regional and local design guidance. G17 To require a straightforward, high-quality design approach to all green infrastructure, which creates inviting, flexible, multi-functional places, protects and enhances local distinctiveness and character, incorporates retained features and important vistas, in a manner that will facilitate easy maintenance. G18 To require clear delineation of the boundaries and transitions between private space, communal space and public space. G19 To require that public open space includes a range of natural habitats and facilitates preservation of flora and fauna where consistent with recreational requirements, landscape improvement and visual amenity. G110 To promote the retention, protection and improvement of distinctive landscape features by, for example, incorporating them into or adjacent to open space, greenways, communal areas, SuDS provision, boundary features. G111 To demonstrate that level changes necessary to accommodate development and associated infrastructure will not encroach on planned open space and will facilitate the protection of features for retention. G112 To agree, with Dún Laoghaire-Rathdown County Council, plans, designs, detailed schedules and specifications of work for all public open space and green infrastructure (see Map 5.1). G113 To promote the design and implementation of planned public open space provision by Dún Laoghaire-Rathdown County Council, at no cost to the Council. G114 To promote the sharing of outdoor recreational facilities between local schools and the local community, including the sharing of public open space provision with schools. G115 To require that SuDS corridors alongside roads and greenways incorporate wildlife habitat, pedestrian links and structural planting where appropriate, in accordance with the requirements of 4.1.2. G116 To promote open SuDS features and wetland features in planned open spaces, subject to satisfactory resolution of management programmes, public safety, ease of cleansing and maintenance access, in accordance with the requirements of 4.1.2. G117 To require within public open spaces a wide range of appropriate, modern, high quality, sporting and recreational facilities for various disciplines, age groups and abilities, being informed by the current Dún Laoghaire-Rathdown Open Space Strategy, current guidance and best practice, in consultation with the Local Authority.	<b>C1 B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2</b>			<b>HH1 M1 M2</b>

G118 To require that all sports provision is compliant with the relevant European Standards and the requirements of the relevant national sports bodies.				
<b>Commentary:</b> Objectives G112 to G118 would contribute towards: <ul style="list-style-type: none"> <li>maximising the uptake in smarter, more sustainable modes of transport (SEO C1).</li> <li>protecting biodiversity (SEOs B1 B2 B3);</li> <li>minimising increases in flood risk (SEO W3);</li> <li>minimising visual impacts (SEO L1); and</li> <li>indirectly towards protecting soil function, the status of water bodies and archaeological and architectural heritage, including context (SEOs S1 W1 W2 CH1 CH2).</li> </ul>				
<b>Natural Green Space Objectives</b>				
G119 To safeguard the ecological integrity of the Carrickmines, Loughlinstown and Bride's Glen rivers and the linear park adjacent to Cherrywood Business Park, and to require the sensitive improvement and management of these areas for biodiversity, education, landscape integration and visual amenity. G120 To require sensitive low-key improvement of the Druid's Glen Valley, such as the control of non-native vegetation, provision of a safe and naturalistic pedestrian pathway, provision of appropriate interpretation, and the minimisation of access points and disturbance, with particular regard to the Cherrywood SDZ Biodiversity Plan. G121 To require an ecological buffer area on the south side of Druid's Glen, in compliance with the Cherrywood SDZ Biodiversity Plan, that includes an avenue of large canopy trees, pedestrian and cycle route, native shrub, woodland and meadow planting, and a SuDS swale. The need for this buffer area is detailed in Appendix D. G122 To require the improvement and continuation of the Linear Park adjacent to Cherrywood Business Park and proposed Town Centre to link with surrounding greenways and habitats, Bride's Glen Road and Bride's Glen Luas Stop.	C1 B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2			HH1 M1 M2
<b>Commentary:</b> Objectives G119 to G122 would contribute towards: <ul style="list-style-type: none"> <li>maximising the uptake in smarter, more sustainable modes of transport (SEO C1).</li> <li>protecting biodiversity (SEOs B1 B2 B3); and</li> <li>indirectly towards minimising visual impacts, minimising increases in flood risk, protecting soil function, the status of water bodies and archaeological and architectural heritage, including context (SEOs L1 S1 W1 W2 W3 CH1 CH2).</li> </ul>				
<b>Amenity Open Space, Class 1 Objectives</b>				
G123 Tully Park To require a high profile, high quality and distinctive flagship park with a range of visitor attractions and diverse active and passive recreational facilities. Schedule of provision to be informed by the current Dún Laoghaire-Rathdown Open Space Strategy and local needs at planning application stage but may include e.g. flagship playground, local pitches, courts, tea-rooms, toilets, public art, litter bins, street furniture, interpretation. The development of Tully Park shall be appropriate to the tranquil character and setting of the cluster of national monuments at its centre. The mature trees in the vicinity of the Tully Church complex shall be retained insofar as possible. G124 Beckett Park To require a major local park with a range of active and passive recreational facilities. Schedule of provision to be informed by the current Dún Laoghaire-Rathdown Open Space Strategy and local needs at planning application stage but may include e.g. playground, local pitches, public art, street furniture. G125 Priorsland Park To require a local park with active and passive recreational facilities. Schedule of provision to be informed by the current Dún Laoghaire-Rathdown Open Space Strategy and local needs at planning application stage, but may include e.g. local kickabout, play lot, exercise equipment and seating. G126 Lehaunstown Park To require a local park with active and passive recreational facilities. Schedule of provision to be informed by the current Dún Laoghaire-Rathdown Open Space Strategy and local needs at planning application stag, but may include e.g. local kickabout, play lot, exercise equipment and seating. G127 Synthetic Outdoor Sports Pitch To require at least one public synthetic sports pitch (multi-functional and able to accommodate senior soccer) north	B1 B2 B3 C1 L1 S1 W1 W2 W3 CH1 CH2		B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2	

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<p>of the M50 motorway, compliant with the relevant European Standard(s) and equipped with appropriate ancillary features such as floodlighting, changing facilities, parking.</p> <p>G128 Ticknick Park To require circa 12 hectares of public land in the Ticknick area, south of the M50 motorway, incorporating formal grass pitches, vehicular access, parking, changing rooms, toilets and associated ancillary requirements. Specific design requirements within this area of land shall be detailed at planning application stage, informed by the current Dún Laoghaire-Rathdown Open Space Strategy and best practice at that time. The lands within the draft Planning Scheme boundary west of the motorway corridor and within the townlands of Laughanstown and Ticknick are to be used solely for the purpose of the provision of outdoor active and passive recreational uses directly related to the wider Cherrywood Planning Scheme.</p> <p>G129 Lehaunstown Lane Pocket Parks To require the provision of 3 public parks (circa 0.2ha) associated with adjacent residential areas, accessible to the general public and facilitating small scale recreation. Pocket parks may incorporate Lehaunstown Lane and should transition, in a legible manner, to communal open space.</p>				
<p><b>Commentary:</b> Objectives G123 to G129 would contribute indirectly towards maximising the uptake in smarter, more sustainable modes of transport, protecting biodiversity, indirectly towards minimising visual impacts, minimising increases in flood risk, protecting soil function, the status of water bodies and archaeological and architectural heritage, including context (SEOs B1 B2 B3 C1 L1 S1 W1 W2 W3 CH1 CH2).</p> <p>Potential conflicts between new development provided for by the objectives and the various environmental components (B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2) would be mitigated by the measures which have been integrated into the Scheme and are identified in Section 9 of this report.</p>				
<p><b>Amenity Open Space, Class 2 Objectives</b></p>				
<p>G130 Tuffa Springs Pocket Parks To require the provision of public open space within residential areas to protect the integrity of Tuffa Springs. Size and location needs shall be informed by ecological/ hydrological reports, as explained in Appendix E.</p> <p>G131 Lehaunstown Village Neighbourhood Plaza To require an open space of a formal village green character to serve local neighbourhoods and provide a setting for Lehaunstown Village centre. Cater for pedestrians and include some passive recreation facilities.</p> <p>G132 Tully Village Neighbourhood Plaza To require an open space of a formal village green character to serve local neighbourhoods and provide a setting for Lehaunstown Village centre. Cater for pedestrians and include some passive recreation facilities.</p> <p>G133 Luas Tunnel Neighbourhood Plaza To provide a paved plaza of a civic nature to cater for movement of pedestrians, cyclists and provide legibility and setting to local built form and circulation. This plaza will deal with the termination of the Grand Parade in a legible and clear manner, incorporating landscaping, pedestrian and cycle circulation. See sketch below Figure 5.4.</p>	<p>B1 B2 B3 C1 L1 S1 W1 W2 W3 CH1 CH2</p>			<p>HH1 M1 M2</p>
<p><b>Commentary:</b> Objectives G130 to G133 would contribute towards:</p> <ul style="list-style-type: none"> <li>• maximising the uptake in smarter, more sustainable modes of transport (SEO C1).</li> <li>• protecting biodiversity (SEOs B1 B2 B3);</li> <li>• protecting soil function and the status of water bodies (SEOs S1 W1 W2); and</li> <li>• indirectly towards minimising visual impacts, minimising increases in flood risk and protecting archaeological and architectural heritage, including context (SEOs L1 W3 CH1 CH2).</li> </ul>				
<p><b>Greenways and Pedestrian Links Objectives</b></p>				
<p>G134 To require that a network of permeable pedestrian routes and greenways shall link all areas with the Planning Scheme including Luas stops, bus stops, employment areas, schools, village centres, town centre, open spaces and green infrastructure.</p> <p>G135 To require that development within the planning scheme is consistent with the development of strategic greenways outside the planning scheme, such as:</p> <ul style="list-style-type: none"> <li>• To Ballyogan;</li> <li>• To Cabinteely Park &amp; Cabinteely Village;</li> <li>• To Kilbogget Park;</li> <li>• To Heronford Lane;</li> <li>• To the Bride's' Glen wooded area and Rathmichael;</li> </ul>	<p>B1 B2 B3 C1 L1 S1 W1 W2 W3 CH1 CH2</p>			<p>HH1 M1 M2</p>

<p>• To the proposed NHA in Loughlinstown (part of the Dalkey Coastal Zone and Killiney Hill pNHA) and Shanganagh coastline;</p> <p>• To Sandyford Business Park.</p> <p>G136 To require that greenways function as green infrastructure by facilitating an ecological role in addition to their transport role.</p> <p>G137 To promote greenways which reflect and contribute to the distinctive character and appearance of their settings.</p> <p>G138 Lehaunstown Lane To require that Lehaunstown Lane, between Lehaunstown Village and the M50 pedestrian bridge, is retained as a route of ecological and cultural importance and incorporates the following principles:</p> <ul style="list-style-type: none"> <li>• Limit vehicular access to the lane;</li> <li>• Retain and supplement where appropriate the lane's rural hedges, trees, banks and other features to preserve elements of the lane's rural character;</li> <li>• Create a buffer circa 10m either side of the lane where indicated by planning scheme drawings;</li> <li>• Locate Class 2 pocket parks (circa 0.2ha), associated with adjacent residential areas, along the lane (refer to Figure 5.3). The pocket parks should straddle the lane.</li> <li>• The lane shall form part of a walking route linking Cabinteely and Brennanstown with lands south of the M50 (Ballycorus, Carrickgollogan, Rathmichael etc.) and east of the Planning Scheme (the coast, Shanganagh etc.).</li> <li>• Promote reconfiguration of the existing Lehaunstown Lane M50 bridge to include soft landscape elements that enable wildlife to cross the motorway and increase pedestrian connectivity with the proposed recreation lands in Ticknock.</li> </ul> <p>G139 Greenway link to Tully Park To require that Tully Park is linked to the Town Centre and adjacent Luas stop by a greenway that incorporates the following principles:</p> <ul style="list-style-type: none"> <li>• Retains the existing visually prominent tree-line along the ridge-line.</li> <li>• Accommodates a large pedestrian footfall and safe usage by cyclists</li> <li>• Universal access for a range of abilities including wheelchair users.</li> <li>• Facilitates a logical and legible transition between the civic character of the Town Centre and the more natural character of Tully Park.</li> <li>• Promote the provision of a raised, high-quality paved crossing between the Tully Park link and the Town Centre.</li> <li>• Forms part of an integral link between Tully Park and Bride's Glen, via the Town Centre (in accordance with objective G177).</li> </ul>				
<p><b>Commentary:</b> Objectives G134 to G139 would contribute towards:</p> <ul style="list-style-type: none"> <li>• maximising the uptake in smarter, more sustainable modes of transport (<b>SEO C1</b>).</li> <li>• protecting biodiversity (<b>SEOs B1 B2 B3</b>);</li> <li>• minimising visual impacts (<b>SEO L1</b>);</li> <li>• protecting archaeological and architectural heritage, including context (<b>SEOs CH1 CH2</b>);</li> <li>• protecting soil function and the status of water bodies (<b>SEOs S1 W1 W2</b>); and</li> <li>• indirectly towards, minimising increases in flood risk (<b>SEOs W3</b>).</li> </ul>				
<p><b>Green Corridors Objective</b></p>				
<p>G140 To promote the incorporation, within the linear SUDS provision running parallel with the M50 motorway, of trees and other native vegetation that can contribute to wildlife linkages, visual screening and perceived noise attenuation. Soft landscaping shall lead up to M50 crossing points as per the Cherrywood Biodiversity Plan.</p> <p>G141 A Landscaping strip shall be maintained alongside the M50 (in particular along the western side of the Beckett Road) to create a visual buffer between the Cherrywood lands and the motorway. The positioning of landscaping shall take account any future need for motorway widening that might arise. See Map 5.2.</p>	<p><b>B1 B2 B3 HH1 L1 S1 W1 W2 W3</b></p>			<p><b>M1 M2 C1 CH1 CH2</b></p>
<p><b>Commentary:</b> Objectives G140 and G141 would contribute towards:</p> <ul style="list-style-type: none"> <li>• minimising increases in flood risk (<b>SEOs W3</b>);</li> <li>• protecting biodiversity (<b>SEOs B1 B2 B3</b>);</li> </ul>				

- protecting soil function and the status of water bodies (SEOs S1 W1 W2);
- minimising visual impacts (SEO L1); and
- reducing exposure to noise levels (SEO HH1).

#### Trees and Hedgerows and Long-term Tree Management Objectives

GI42 To require that the approach to existing and proposed trees throughout the planning scheme is consistent with the current Dún Laoghaire-Rathdown tree strategy (currently Dún Laoghaire-Rathdown TREES, 2011-1015) and associated guidelines.

GI43 To require the retention and protection (in accordance with BS5837) of trees and hedgerows which are of particular significance to amenity and biodiversity or listed for retention. These are highlighted on Map 5.2. These include but are not necessarily limited to the following:

- Turkey Oaks, Priorsland (within proposed SUDS provision).
- Trees along Loughlinstown River to rear of The Ramparts and Willow Court.
- Wooded areas, Bride's Glen.
- Extensive woodland, Druid's Glen.
- Trees along Lehaunstown Lane.
- Tree line, southwest boundary Lehaunstown House/Castle.
- Mature tree-line running along ridge line from Tully Church down to the Cherrywood Luas stop.
- Hedgerows along Lehaunstown Lane
- Hedgerows within and around proposed Beckett Park.
- Hedgerow linking northern end of Lehaunstown Lane to the Lehaunstown Valley.
- Hedgerow north of confluence of Cabinteely Stream and Carrickmines River.
- Retained hedgerows in an urban setting may require management work or reshaping to prevent conflict with health and safety requirements. This detail shall be outlined by the applicant in the Habitat Management Plan required under Biodiversity Policy BP 03.

GI44 To require that all roads include an appropriate level of tree planting in accordance with the following principles:

- Avenue street tree planting is required along all structural roads. Where pavement width is greater than 2.5m, trees shall be planted in linear trenches making use of proprietary planting systems or structural soil which can form part of the drainage network in consultation with Dún Laoghaire-Rathdown Local Authority. Trees can also be planted in road verges. Particular regard shall be had to tree planting along the Grand Parade, which shall incorporate avenue of large growing, structural, canopy trees.
- Where there are SuDS swales or open spaces adjacent to roads, it is preferable for tree planting to be located within these instead of the footpath, in accordance with Section 4.1.2.
- Where insufficient space for street tree planting is indicated in the road section or adjacent green infrastructure, sufficient space must be provided along the edge of adjacent development plots.
- Sufficient space must be provided underground for street trees and urban trees.
- Establish a minimum density of tree planting within development plots throughout the Planning Scheme Area to provide shelter, noise mitigation, mitigation of particulate pollution.
- Tree planting provision must be agreed at application stage.

GI45 To require the submission of management programmes for retained and newly planted trees, shrubs and other vegetation demonstrating long-term continuity and consistency.

B1 B2 B3 L1 S1  
W1 W2 W3 CH2

M1 M2 C1 CH1  
HH1

#### Commentary:

Objective GI42 to G45 would contribute towards:

- protecting biodiversity (SEOs B1 B2 B3);
- minimising visual impacts (SEO L1);
- minimising increases in flood risk (SEOs W3); and,
- indirectly towards protecting soil function and the status of water bodies (SEOs S1 W1 W2) and protecting the context of architectural heritage (SEO CH2).

<b>Biodiversity Objectives</b>			
<p>GI46 To require the involvement of a suitably qualified Ecologist prior to and when undertaking ecologically sensitive, or ecologically related, works or proposals e.g. ecological surveys, reports, proposals, site supervision.</p> <p>GI47 To demonstrate that the development has regard to the principles of the 'Green City Guidelines' (UCD Urban Institute Ireland, 2008) and that green infrastructure is consistent with the provisions of the current County Council's Parks Biodiversity Policy.</p> <p>GI48 To ensure that the development complies with the Cherrywood SDZ Biodiversity Plan.</p> <p>GI49 Promote liaison with National Parks and Wildlife Service during the development design, construction, monitoring and management stages.</p> <p>GI50 Require that any public lighting is minimised in areas within 30m of existing or proposed hedgerows, treelines, watercourses or woodland edges, specifically in areas that are important for bats such as along commuting routes and at foraging and roosting locations. In these locations, lighting shall be installed only where necessary for public safety, with directional illumination and to the minimum lux level consistent with this need.</p> <p>GI51 Ensure that the design and function of green infrastructure is able to allow the movement of species across the Planning Scheme lands and to maintain connectivity between the ecological corridors at Druid's Glen, Lehaunstown Valley and Bride's Glen. This provision may be required within development plots where there is insufficient space e.g. alongside some greenways.</p> <p>GI52 Ensure that the design of all development takes account of the sensitivities of retained habitats and greenways and avoids adverse impacts resulting from noise, lighting and other types of disturbance.</p> <p>GI53 Encourage awareness among local communities of the existence of important greenways, treelines and ecological connectivity to ensure their retention and management for future generations.</p> <p>GI54 Ensure that the design of swales and stormwater attenuation areas and SuDS proposals within private developments include commitments to addressing a net gain in biodiversity. Where planting is required, native species must be used, including trees where suitable.</p> <p>GI55 To require that SuDS features in river valley areas shall be designed as extensive, naturalistic open features (e.g. ponds, wetlands) of value to wildlife and local amenity. Their water quality and storage objectives shall be dealt with in combination with landscape integration, visual amenity and protection/enhancement of biological diversity.</p> <p>GI56 To require that the approach to retained and new ponds, basins or watercourses throughout the Planning Scheme shall incorporate best practice with respect to design, landscaping and management techniques to promote biodiversity and visual amenity.</p> <p>GI57 To require that where SuDS features are connected to open watercourses then best practice will apply and consultation with Inland Fisheries Ireland will take place to agree on the methodology for such works so as to minimise impacts on the watercourse and its ecology</p> <p>GI58 To require the submission and adherence to site-specific method statements demonstrating how pollution of watercourses during and after the construction period will be prevented and/or mitigated. These shall be developed in consultation with the relevant river authorities or fisheries boards.</p> <p>GI59 Require the protection of existing hedgerows, treelines, woodland, scrub and other semi-natural habitats. Retention of habitats should take into account the environmental conditions required to maintain their condition (e.g. shading, drainage). In these areas, the applicant shall provide a Habitat Management Plan detailing how this will be achieved.</p> <p>GI60 Ensure the protection of the biodiversity associated with watercourses and their riparian (bankside) habitats through detailed design and protective measures during construction. Where diversion and flood relief measures are required then best practice will apply and consultation with Inland Fisheries Ireland will take place to agree on the methodology for such works so as to minimise impacts on the watercourse and its ecology, in accordance with the requirements of the Water Framework Directive. No projects shall give rise to significant erosion and deposition of soil into natural watercourses.</p> <p>GI61 Ensure the protection of calcareous (tuffa) springs and the area surrounding them by having no net effect on the hydrogeological and other physical conditions on which these springs rely. Any Planning Application that is located within the hydrogeological catchment of these areas as outlined in the protection zone map of the Hydrogeological Study in Appendix E will have to be accompanied by evidence of how this will be achieved.</p>	<p><b>B1 B2 B3 L1 S1 W1 W2 W3 CH1 CH2 C1</b></p>		<p><b>M1 M2 HH1</b></p>

<p>Collection of hydrogeological data may be required in some cases to prove that there will be no effect on these features.</p> <p>GI62 Ensure the protection of the physical and biological structure of Bride’s Glen and Druid’s Glen ecological corridors including the habitat and species diversity and richness of terrestrial and aquatic habitats. Development applications within 150m of the edge of the corridor and any proposals within the corridor should provide details on how the corridor will be protected from direct/indirect effects of lighting, noise, visual disturbance and how surface water runoff quality will be controlled.</p> <p>GI63 The ecological sensitivity of Druid’s Glen has been examined and the full details of the study are contained in the report in Appendix D. Due to the complexity of the habitats within the Glen, buffer zones have been created along the southern valley edge and within the northern valley. These are designed to separate the effects of development (light, visual disturbance) from the sensitive habitats and species in the Glen and at its edge. Any development on lands affected by this buffer shall ensure the maintenance and appropriate use of the 50m buffer around Druid’s Glen in accordance with the report in Appendix D.</p> <p>GI64 Promote sustainable recreation within the Planning Scheme Area that will allow inclusive use of the open space without causing adverse effects on the physical and biological functions of the green infrastructure. This will be achieved by prioritising class I and II open spaces for public use and discouraging visitor access at sensitive sites in the valleys such as the areas surrounding the petrifying springs and calcareous grassland in the Lower Carrickmines valley.</p> <p>GI65 To require the use of native trees, shrubs and grasses in landscaping proposals and promote the re-use of existing topsoil and subsoils within landscaping plans in both public and private open space areas to allow the preservation of the native seed bank within landscaping schemes.</p> <p>GI66 To require that all proposals for open space and landscape design to include biodiversity conservation and enhancement measures.</p> <p>GI67 Require that any developments retaining semi-natural habitats set out clear commitments to managing these areas to maximise their visual amenity and ecological value.</p> <p>GI68 Require the effective control of invasive species within the Planning Scheme Area. In order to achieve this, landowners will be required to work with the Council to develop a strategic approach to controlling invasive species throughout these lands.</p> <p>GI69 Ensure that the crossing of Druid’s Glen is designed to be the best ecological option. Proposals should demonstrate measures to avoid significant habitat loss, disturbance to surrounding habitats and species, proposals to prevent water pollution and protect riparian habitats.</p> <p>GI70 Ensure that the measures contained within the Biodiversity Plan are reviewed at a minimum of five yearly intervals by the Planning Authority, after adoption of the Plan. This addresses the fact that species may shift their ranges and habitats will change over time and that this may warrant revisions to the protective recommendations in the Plan.</p>				
<p><b>Commentary:</b>                  Objectives GI46 to G70 would contribute towards:</p> <ul style="list-style-type: none"> <li>• protecting biodiversity (SEOs B1 B2 B3);</li> <li>• minimising visual impacts (SEO L1);</li> <li>• minimising increases in flood risk (SEOs W3); and,</li> <li>• protecting soil function and the status of water bodies (SEOs S1 W1 W2);</li> <li>• maximising the uptake in smarter, more sustainable modes of transport (SEO C1); and</li> <li>• indirectly towards protecting the context of architectural and archaeological heritage (SEOs CH1 CH2).</li> </ul>				
<p><b>Play Objectives</b></p> <p>GI71 To promote a child-centred approach, based where appropriate on ‘home-zone’ principles, that enables children to:</p> <ul style="list-style-type: none"> <li>• Move freely and safely around their neighbourhood;</li> <li>• Play within sight of their home;</li> <li>• Play in the natural environment;</li> <li>• Play at purposefully designed play facilities.</li> </ul> <p>GI72 To require that play provision:</p>	<p>C1</p>			<p>B1 B2 B3 L1 S1                  W1 W2 W3 CH1                  CH2 M1 M2                  HH1</p>

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<ul style="list-style-type: none"> <li>• Has regard to the relevant design standards of the Council's Open Space Strategy and the current Council Play Policy;</li> <li>• Complies with the relevant British (BS) or European (EN) Standards.</li> <li>• Has regard to the requirements of the Sustainable Urban Housing: Design Standards for New Apartments - Guidelines for Planning Authorities. September 2007. DEHLG.</li> <li>• Complies with the minimum recommended distance thresholds and local provision standards in place at the time of implementation.</li> <li>• Is carefully sited in easily accessible locations and well overlooked by adjacent housing, while not causing a nuisance to nearby residences.</li> <li>• Has a clear hierarchy: Flagship playground (Tully Park); Local Playgrounds in Class 1 Open Space; Neighbourhood play lots in local neighbourhoods; Community playgrounds in secure community centres.</li> </ul> <p>GI73 The siting of play provision in all locations will be considered positively providing that the play facilities comply with the relevant design guidelines and European standards, and do not adversely impact upon residential amenity or environmental considerations.</p>				
<p><b>Commentary:</b> Objectives GI71 to GI73 would contribute indirectly towards maximising the uptake in smarter, more sustainable modes of transport (SEO C1).</p>				
<p><b>Communal Open Space Objective</b></p>				
<p>GI74 To require multi-functional and flexible Communal open spaces within residential areas that are inviting places for people and used for informal recreation. They must be well overlooked (not oppressively so) and within sight of the buildings they serve, with high quality tree planting and soft/hard landscaping. Open grass areas lacking in recreational facilities are not acceptable.</p>	<p>B1 B2 B3 C1</p>			<p>L1 S1 W1 W2 W3 CH1 CH2 M1 M2 HH1</p>
<p><b>Commentary:</b> Objectives GI74 would contribute towards would contribute indirectly towards maximising the uptake in smarter, more sustainable modes of transport and protecting biodiversity (SEO C1)</p>				
<p><b>Boundaries Objectives</b></p>				
<p>GI75 To require that where the boundaries of sites incorporate or are adjacent to existing trees and hedgerows to be retained, these shall be utilised as part of the boundary.</p> <p>GI76 To require that boundaries:</p> <ul style="list-style-type: none"> <li>• Clearly delineate the transition between private, communal and public areas;</li> <li>• Enable reasonable surveillance of the adjacent public realm by residents;</li> <li>• Present the building frontage visually as part of the public realm;</li> <li>• Reflect the local streetscape and neighbourhood character and context;</li> <li>• Are visually harmonious with the surrounding area, not visually intrusive;</li> <li>• Do not provide a suitable face for graffiti;</li> <li>• Respond to slopes by following contours;</li> <li>• Are transparent (see-through when viewed from most angles) above a height of 1.4m where they abut the public realm to enable passive supervision;</li> <li>• Are predominantly soft (e.g. railings with planting, low wall with hedge etc.) and contribute to biodiversity and visual amenity where they abut green infrastructure;</li> <li>• Front garden boundaries are not to be higher than 1.4m.</li> </ul>	<p>C1 L1</p>			<p>B1 B2 B3 S1 W1 W2 W3 CH1 CH2 M1 M2 HH1</p>
<p><b>Commentary:</b> Objectives GI75 and GI76 would contribute towards:</p> <ul style="list-style-type: none"> <li>• protecting biodiversity (SEOs B1 B2 B3); and</li> <li>• minimising visual impacts (SEO L1).</li> </ul>				
<p><b>Town Centre Civic Space Objectives</b></p>				
<p>GI77 To require the design, as an integral component of the Cherrywood Town Centre Urban Form Development Framework (see DA10), of a clear, legible and inviting network of civic open space, incorporating pedestrian and cycle links, between Tully Park and Bride's Glen. Civic open spaces shall be located at pedestrian focal points e.g. adjacent to the Tully Park greenway, Luas stops, Wyattville Road pedestrian link. This provision shall be set out with regard to the qualitative and quantitative requirements of the current County Development Plan.</p>	<p>B1 B2 B3 C1 L1</p>			<p>S1 W1 W2 W3 CH1 CH2 M1 M2 HH1</p>

G178 To require that the Town Centre is linked either side of the Wyattville Road and to promote this link as an integral public space of a civic character, with tree and soft landscape elements for shelter and visual amenity.	<b>B1 B2 B3 C1 L1</b>			<b>S1 W1 W2 W3 CH1 CH2 M1 M2 HH1</b>
<b>Commentary:</b> Objectives G177 to G178 would contribute towards: <ul style="list-style-type: none"> <li>contribute towards maximising the uptake in smarter, more sustainable modes of transport and protecting biodiversity (<b>SEO C1</b>);</li> <li>protecting biodiversity (<b>SEOs B1 B2 B3</b>); and</li> <li>minimising visual impacts (<b>SEO L1</b>).</li> </ul>				

## 8.11 Chapter 6: Development Areas

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Development Area 1: Lehaunstown - Specific Objectives. Also see Planning Scheme Map 6.1</b>				
<p>DA 1 To develop the Village Centre, focused on Lehaunstown Lane and the village green, with good access provided to the Luas stop.</p> <p>DA 2 The residential development on the far side of the road to Druid's Glen shall provide passive surveillance of the Druid's Glen Buffer by its design and layout.</p> <p>DA 3 The high-level bridge linking Lehaunstown with the N11 will have to be sensitively designed so as to span the Druid's Glen with a visually slender structure that does not dominate either the valley floor or its setting, with due regard to the ecological corridor it crosses.</p> <p>DA 4 The treatment of the junction of the Grand Parade and Barrington's Road will create a public plaza in line with G133.</p> <p>DA 5 Development abutting existing homes should have regard to the residential amenity of existing residents.</p> <p>DA 6 Buildings should be orientated towards the Grand Parade, with frontage set backs where necessary to facilitate landscaping or to provide a privacy strip between the building and the back of footpath.</p> <p>DA 7 In accordance with Chapter 5 Green Infrastructure G129, pockets parks will be provided along Lehaunstown Lane to provide play opportunities for the adjoining residents.</p> <p>DA 8 A community facility in accordance with Section 2.3.4 will be provided in the Village Centre.</p> <p>DA 9 Prior to a planning application being submitted on the Res 4 plot in Development Area 1 Lehaunstown or Res 3 plot in Development Area 4 Domville both located on the southern side of the Grand Parade, the land owner shall enter into a discussion with the Local Authority to explore the potential of relocating the Travellers Accommodation site in the Res 4 plot to the Res 3 plot.</p>	<b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 C1</b>		<b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</b>	
<b>Development Area 2: Cherrywood - Specific Objectives. Also see Planning Scheme Map 6.2</b>				
<p>DA 10 The design and layout of the Town Centre shall address the following issues:</p> <ul style="list-style-type: none"> <li>In relation to ground levels, the change in levels between the surrounding road network and the Town Centre Link shall be designed in a manner that is attractive to the pedestrian;</li> <li>In relation to building heights, where a building addresses two streets, building height will be measured from the higher street and no street shall be higher than the Luas level;</li> <li>In relation to the Grand Parade, it is proposed as a low speed 30km/h street facilitating movement across the Wyattville Link Road for pedestrians, cyclists, Luas and motorised traffic. It will mitigate the severance caused by the Wyattville Link Road and encourage interaction between both sides of the Town Centre. In traffic terms it will provide vehicular access to development blocks TC2 and TC4 and reduce at-grade crossing movements of the Wyattville Link Road. Mitigation of the severance outlined, together with these access issues must be addressed.</li> <li>In relation to the relationship with the Wyattville Link Road, lands that encroach/abut/ or in any way have a relationship with the Wyattville Link Road, shall show the relationship between all building edges and the Road. The design of all elements shall be such that pedestrian movement is positively discouraged across the Link Road at-</li> </ul>	<b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 C1</b>		<b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</b>	

<p>grade. This detail is necessary to support the creation of an attractive and sustainable environment in the Town Centre.</p> <p>DA 11 The Town Centre link should form an important public space of a civic character, with trees and soft landscaping elements for shelter and visual amenity. The design of the Town Centre link shall incorporate features to protect pedestrian and cycle movement. These features will provide a safe environment for all users of the Town Centre Link and the Wyattville Link Road.</p> <p>DA 12 Retail Impact Assessments shall accompany retail applications within the Town Centre.</p> <p>DA 13 To design civic spaces to assist movement through the Town Centre, in particular marking where pedestrian routes converge or cross.</p> <p>DA 14 That Tully Park is developed in accordance with the objectives set down in Chapter 5 Green Infrastructure and Chapter 3 Cultural and Built Heritage.</p> <p>DA 15 To provide a Transport Interchange (T.I) in accordance with Chapter 4 and Map 6.2.</p> <p>DA 16 To provide a Community Facility in the Town Centre in accordance with Section 2.3.4.</p> <p>DA 17 To provide a Library Facility in the Town Centre in accordance with Section 2.3.4.</p> <p>DA 18 To provide a Primary Care Unit in the Town Centre in accordance with Section 2.3.6.</p>				
<p><b>Development Area 3: Priorsland - Specific Objectives. Also see Planning Scheme Map 6.3</b></p>				
<p>DA 19 Pedestrian and vehicular connections are to be provided across the flood containment zone by way of bridges.</p> <p>DA 20 Development adjoining the M50 to provide sound mitigation for the remainder of the Development Area.</p> <p>DA 21 There shall be a high quality of landscaping and visual amenity at the interface with Cherrywood when viewed from the M50.</p> <p>DA 22 Lands adjacent to Carrickmines Luas stop to provide a transport interchange and a park and ride facility with connections to the national road network. A local convenience retail outlet (of up to 200m<sup>2</sup> gross floor area) and a tea room/café use are permissible in principle on the lands adjacent to the Carrickmines Luas stop.</p> <p>DA 23 Access to Brennanstown Luas stop to be achieved through design of the residential plot.</p> <p>DA 24 To provide appropriate access to Druid's Glen from the open space.</p> <p>DA 25 To develop Priorsland House and Carrickmines Station in accordance with the details set down in Chapter 3 Cultural and Built Heritage.</p> <p>DA 26 Access to Carrickmines Interchange will be limited to: Priorsland House, Carrickmines Station including lands adjoining these structures identified in Map 3.3 and the transport facilities adjoining the Carrickmines Luas stop.</p> <p>DA 27 A community facility in accordance with Section 2.3.4 will be provided in the Village Centre.</p>	<p>B1 B2 B3 S1 W1 W2 W3 CH1 CH2 C1 HH1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</p>	
<p><b>Development Area 4: Domville - Specific Objectives. Also see Planning Scheme Map 6.4</b></p>				
<p>DA 28 Buildings should be orientated towards the Grand Parade, with appropriate frontage set backs where necessary to facilitate landscaping or to provide a privacy strip between the building and the back of footpath.</p> <p>DA 29 To incorporate the Greenway connection along the existing tree line from Tully Park to the Valley into the layout of the adjoining residential areas.</p> <p>DA 30 To provide a Class 2 open space pocket park in close proximity to the Tuffa Springs in order to protect the hydrology source, as detailed in Chapter 5 Green Infrastructure (see GI30 and Appendix E).</p> <p>DA 31 The design and layout of residential development should provide a living edge to Tully Park.</p> <p>DA 32 Prior to a planning application being submitted on the Res 4 plot in Development Area 1 Lehaunstown or the Res 3 plot in Development Area 4 Domville both located on the southern side of the Grand Parade, the landowner shall enter into a discussion with the Local Authority to explore the potential of relocating the Traveller's Accommodation site in the Res 4 plot to the Res 3 plot.</p>	<p>B1 B2 B3 S1 W1 W2 W3 CH1 C1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</p>	
<p><b>Development Area 5: Druid's Glen - Specific Objectives. Also see Planning Scheme Map 6.5</b></p>				
<p>DA 33 On lands east of Lehaunstown Lane residential development shall be of a mixed typology to provide a range of housing types, the layout shall provide surveillance over the valleys and frontage to the Druid's Glen Road.</p> <p>DA 34 Development in the grounds of Glendruoid House should reflect the views to and from the protected structure and accord with the detail and objectives set down in Chapter 3 Cultural and Built Heritage.</p> <p>DA35 After the alignment of the Druids Glen Road has been agreed in writing with the Local Authority, any lands remaining adjoining the N11 within the Planning Scheme boundary that have not been allocated a landuse in</p>	<p>B1 B2 B3 S1 W1 W2 W3 CH1 CH2 C1 L1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</p>	

the Planning Scheme may be developed for residential purposes in accordance with the then current County Development Plan. This will not be subject to the phasing requirements of the Planning Scheme. Where reference is made to the 'current' County Development Plan or Guidelines, it means the document that is current at the date of the decision of a planning application.				
<b>Development Area 6: Bride's Glen - Specific Objectives. Also see Planning Scheme Map 6.6</b>				
<p>DA 36 The design and layout of the area shall provide pedestrian connections to the Town Centre, N11, Cherrywood Road and Mullinastill.</p> <p>DA 37 That the buildings are designed with their primary façade fronting the public domain. Where buildings adjoin the linear open space, access and overlooking of the linear park should be considered in the design of the building.</p> <p>DA 38 That the design and landscaping of the area has regard to its context as viewed from Killiney Hill, the Wyattville Road and the M50.</p> <p>DA 39 The parcel of residential development is accessed directly from within the Cherrywood Planning Scheme.</p> <p>DA 40 Planning Applications are required to demonstrate that the proposal does not impact on the alignment of the Luas Line B2.</p>	<p>B1 B2 B3 S1 W1 W2 W3 CH1 C1 HH1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</p>	
<b>Development Area 7: Macnebury - Specific Objectives. Also see Planning Scheme Map 6.7</b>				
<p>DA 41 Residential buildings should overlook Bishop Street, with appropriate frontage set backs where necessary to facilitate landscaping or to provide a privacy strip between the building and the back of footpath.</p> <p>DA 42 That the design and landscaping of the development land straddling the Wyattville Link Road shall have regard to its context as viewed from the Wyattville Link Road.</p> <p>DA 43 That the design and layout of the area has regard to the provision of clear pedestrian connections to the Town Centre and will not facilitate pedestrians attempting to cross the Wyattville Link Road at grade.</p> <p>DA 44 Commercial land uses parallel with the M50 should be a design of sufficient height and scale to buffer adjoining areas from noise.</p> <p>DA 45 There shall be a high quality of landscaping and visual amenity at the interface with Cherrywood when viewed from the M50.</p> <p>DA 46 To maintain the pedestrian access over the M50 to open space lands at Ticknick.</p> <p>DA 47 The proposed tunnel at Beckett Road, under the Wyattville Link Road, shall be developed in accordance with the clarification submitted to An Bord Pleanála by the Development Agency on the 15<sup>th</sup> day of January 2014. See Appendix H.</p>	<p>B1 B2 B3 S1 W2 W3 CH1 CH2 C1 HH1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</p>	
<b>Development Area 8: Tully - Specific Objectives. Also see Planning Scheme Map 6.8</b>				
<p>DA 48 The village will be focused on the village square so as to draw together greenways with the village school, the local park and the local shops.</p> <p>DA 49 The design and building heights within the village shall limit the impact of over shadowing on the village square.</p> <p>DA 50 Residential development shall be of sufficient height to provide passive surveillance over Beckett Park and the greenways so as to enhance the pedestrian experience.</p> <p>DA 51 Development fronting Tully Park should be less structured and create a softer frontage with Tully Park.</p> <p>DA 52 Buildings should be orientated towards Castle Street, with appropriate frontage and set backs where necessary to facilitate landscaping and/or to provide a privacy strip between the building and the back of footpath.</p> <p>DA 53 Beckett Park should have good linkages to the local primary and post primary schools.</p> <p>DA 54 In accordance with Chapter 5 Green Infrastructure G129 pocket parks will be provided along Lehaunstown Lane to provide play opportunities for the adjoining residents.</p> <p>DA 55 A Community Facility will be provided in the Village Centre in accordance with Section 2.3.4.</p> <p>DA 56 There shall be a high quality of landscaping and visual amenity at the interface with Cherrywood when viewed from the M50.</p>	<p>B1 B2 B3 S1 W1 W2 W3 CH1 C1 HH1</p>		<p>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1 M1 M2</p>	

**Commentary:**

The evaluation of the Development Area Specific Objectives reflects the evaluation of Scenario 4 provided on Table 7.3 as relevant.

The objectives and accompanying mapping would contribute towards:

- protecting biodiversity (**SEOs B1 B2 B3**);
- minimising exposure to noise levels (**SEO HH1**);
- minimising visual impacts (**SEO L1**);
- minimising increases in flood risk (**SEOs W3**);
- protecting soil function and the status of water bodies (**SEOs S1 W1 W2**);
- maximising the uptake in smarter, more sustainable modes of transport (**SEO C1**); and
- indirectly towards protecting the context of architectural and archaeological heritage (**SEOs CH1 CH2**).

Although potential conflicts exist, the integration of environmental considerations into the Planning Scheme minimises conflicts with:

- protecting biodiversity (**SEOs B1 B2 B3**);
- minimising exposure to noise levels (**SEO HH1**);
- protecting soil function (**SEO S1**);
- protecting the status of waters (**SEOs W1 W2**);
- minimising increases in flood risk (**SEO W3**);
- minimising visual impacts (**SEO L1**); and,
- minimising impacts upon archaeological and architectural heritage (**SEOs CH1 CH2**).

## 8.12 Chapter 7: Phasing

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Description</b>				
Chapter 7 of the Planning Scheme outlines proposals for the phasing of development within the SDZ lands. This Chapter provides details with regard to the sequencing of Growth Areas within Cherrywood and identifies, inter alia, phasing thresholds relating to strategic infrastructure and services and how phasing provisions are to be implemented.	<b>B1 B2 B3 S1 W1 W2 W3 C1 M1 M2</b>		<b>B1 B2 B3 S1 W1 W2 W3 L1 CH1 CH2 HH1</b>	
<b>Commentary:</b>				
The purpose of phasing is to ensure that infrastructure, services, facilities and amenities are provided together with residential and employment development. The phasing would contribute towards the timely and appropriate provision of water services infrastructure and capacity ( <b>SEOs M1 and M2</b> ) and drainage infrastructure ( <b>SEO W3</b> ), indirectly contributing towards the protection of the status of water bodies, soil function and ecology ( <b>SEOs W1 W2 S1 B1 B2 B3</b> ). The phasing would also contribute towards efforts relating to the achievement of sustainable mobility.				
The phasing facilitates development of the Planning Scheme area and therefore conflicts with a number of environmental components. The nature of these conflicts is reflected in the evaluation of Scenario 4 provided on Table 7.3.				

## 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 Planning Scheme.

Potential beneficial effects of implementing the Cherrywood Planning Scheme have been and will be maximised and potential adverse effects have been and will be avoided, reduced or offset through:

- The consideration of alternatives for the Planning Scheme;
- Mitigation through communication of environmental considerations and integration of these considerations into the Planning Scheme Land Uses Layout Map; and
- Adherence to measures which have been integrated into the Planning Scheme.

### 9.2 Mitigation through Consideration of Alternatives

A range of potential alternative development scenarios for the Planning Scheme were identified at an early stage in the process and evaluated for their likely significant environmental effects (see Sections 6 and 7).

The environmental baseline and the Strategic Environmental Objectives (see Section 4 and Section 5) were used in order to predict and evaluate the environmental effects of implementing the alternatives.

Communication of the findings of this evaluation helped the Planning team make an informed choice as to which alternative was to be put before the Members of the Council.

Communication of this evaluation to the Members of the Council through this report has helped the Members to make an informed choice with regard to the making of the Planning Scheme.

### 9.3 Mitigation through Integration of Environmental Considerations into the Planning Scheme Primary Land Uses Map

Environmental considerations (see Section 4 'Environmental Baseline') were communicated to the Planning team throughout the process of preparing the Planning Scheme. This allowed them to integrate these considerations into the Primary Land Uses Map (Map 2.1 in the Planning Scheme).

The Primary Land Uses Map is shown overleaf. There have been various iterations of this map each of which has been informed by environmental considerations highlighted by the SEA and other processes such as the AA. Specifically, the final map (see Figure 9.1) has been informed as follows:

1. A Green Infrastructure Use<sup>97</sup> has been provided in stream valleys along the northern, eastern and south-eastern boundaries of the site. The selection of this use has been informed by flooding, ecological, water and visual considerations and will contribute towards the protection and management of these sensitivities.
2. The Uses, Densities and Access and Movement (Planning Scheme Maps 2.1, 2.2 and 2.5) throughout the site have been informed by sustainable mobility considerations and will contribute towards the achievement of sustainable mobility patterns.

<sup>97</sup> Green Infrastructure Use Objective: 'A network and hierarchy of green infrastructure will be incorporated throughout the area to form a legible, contemporary and pleasant outdoor environment.'

3. Building Heights and Frontages (Planning Scheme Maps 2.3 and 2.4) throughout the site have been informed by visual considerations and will contribute towards the mitigation of visual effects.
4. Protected Structures Designations have been identified across the site. These will contribute towards the protection of architectural heritage.
5. A Green Infrastructure Use has been provided within the centre of the site, informed by and contributing towards the protection of archaeological and visual sensitivities.
6. Commercial and Employment Uses have been generally provided along the M50, informed by the Noise Assessment that was undertaken as part of the SEA and contributing towards the protection of human health.
7. The provision of Greenways throughout the Planning Scheme area has been informed by sustainable mobility and ecological considerations and will contribute towards the achievement of sustainable mobility patterns and ecological connectivity.

## 9.4 Mitigation by Addition of Objectives

Table 9.1 links key mitigation measure(s) - which have been integrated into the Planning Scheme to the likely significant effects of implementing the Planning Scheme - if unmitigated. The integration of these measures into the Planning Scheme occurred over a number of iterations and was informed by, inter alia, various communications through the SEA process.

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.

The reference codes are those which accompany the relevant measures in Section 8 of this report and in the Planning Scheme.

## 9.5 Mitigation referring to the County Development Plan 2010-2016

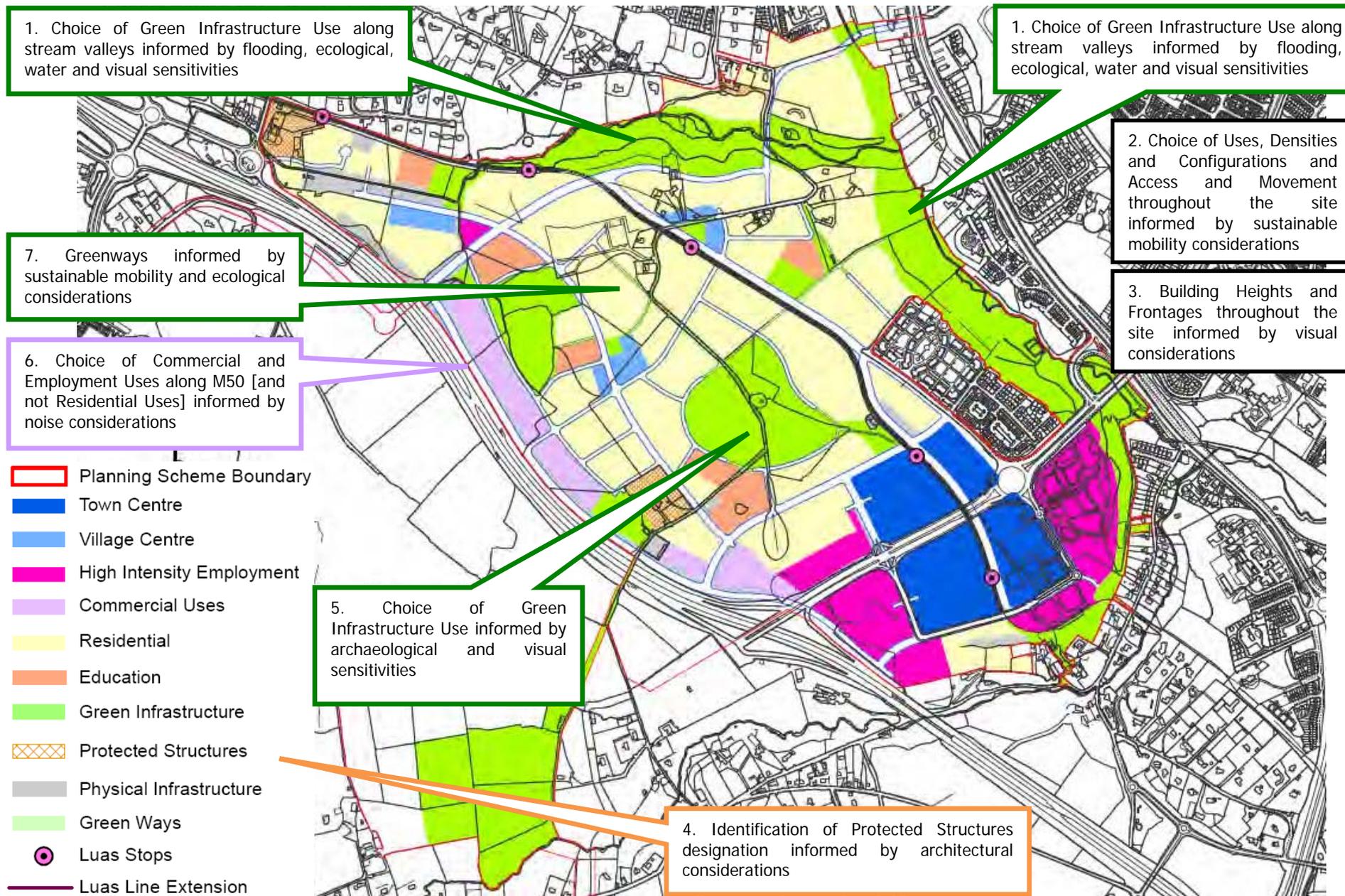
In addition to the mitigation measures that have been integrated into the Planning Scheme, Section 2.2.1 of the Planning Scheme states that 'Where the Planning Scheme does not address an aspect of a development proposal the assessment will revert to the policies and objectives of the current County Development Plan.'

Policy LHB27 from the County Development Plan 2010-2016 integrates a number of SEA mitigation measures into County Development Plan and is as follows:

*It is Council policy to implement the mitigation measures as set out in Section 9.3 of the Environmental Report accompanying the Development Plan, which are envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the County Development Plan.*

Applicable mitigation measures detailed in the Environmental Report for the County Development Plan 2010-2016 and referred to in County Development Plan 2010-2016 Policy LHB27 are detailed on Table 9.1.

These measures are likely to change on the review of the current County Development Plan which will be subject to its own SEA process.



**Figure 9.1 Mitigation through Integration of Environmental Considerations into the Planning Scheme Primary Land Uses Map**

**Table 9.1 Mitigation by Addition Objectives and reference to County Development Plan 2010-2016 Policy LHB27**

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s) from Planning Scheme and CDP 2010-2016
Loss of biodiversity with regard to Natura 2000 Sites	CDP Policy LHB27 (Biodiversity and Flora and Fauna I, II and III)
Loss of biodiversity with regard to ecological connectivity	Objectives: PD 17, GI 3, GI 9, GI 10, GI 15, GI 16, GI 19, GI 20, GI 21, GI 22, GI 30, GI 35, GI 36, GI 38, GI 39, GI 40, GI 41, GI 42, GI 46 to GI 52, GI 54 to GI 70, GI 75, GI 76 and DA 30
Loss of biodiversity with regard to Wildlife Sites and species listed on Schedule 5 of the Wildlife Act 1976	Objectives: PD 17, GI 3, GI 9, GI 10, GI 15, GI 16, GI 19, GI 20, GI 21, GI 22, GI 30, GI 35, GI 36, GI 38, GI 39, GI 40, GI 41, GI 42, GI 46 to GI 52, GI 54 to GI 70, GI 75, GI 76 and DA 30
Spatially concentrated deterioration in human health	Objectives: PD 31, GI 40, DA 20 and DA 42 CDP Policy LHB27 (Air and Noise I)
Damage to the hydrogeological and ecological function of the soil resource	Objectives: GI 63 and GI 64
Adverse impacts upon the status of water bodies	Objectives: GI 16, GI 30, GI 61, GI 63 to GI 67, GI 70 and DA 30 CDP Policy LHB27 (Water Protection II and IV)
Increase in the risk of flooding	Objectives: PD 17, PD 20, PI 7 to PI 11, GI 10, GI 15, GI 16, GI 21, GI 40, GI 57 to GI 61 CDP Policy LHB27 (Flooding III)
Failure to provide adequate and appropriate waste water treatment	Objective: PI 12 CDP Policy LHB27 (Waste Water I)
Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean	Objectives: PI 1 to PI 5 CDP Policy LHB27 (Drinking Water II)
Failure to contribute towards sustainable transport and associated impacts	Objectives: PD 10, PD 24, PD 25, PD 26, PI 13, PI 14, PI 16, PI 17 to PI 19, PI 20, PI 21, PI 22, PI 23, PI 24, GI 1, GI 3, GI 15, GI 17, GI 20, GI 21, GI 23 to GI 29, GI 31 to GI 33, GI 35, GI 40, GI 41, GI 74 to GI 78, DA 1, DA 10, DA 13, DA 19, DA 36, DA 43, DA 46 and DA 47
Effects on entries to the Record of Monuments and Places and other archaeological heritage	Objectives: H 1 to H 12, GI 38
Effects on entries to the Records of Protected Structures and other architectural heritage	Objectives: H 13 to H 66, DA 34
Occurrence of adverse visual impacts	Objectives: PD 21, PD 27, PD28, PD29, GI 9, GI 19, GI 22, GI 37, GI 38, GI 39, GI 40, GI 41, GI 42, GI 43, GI 44 to GI 48, GI 78, DA 3, DA 12, DA 34 and DA 38

## 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 which will be used in order to monitor the likely significant effects of implementing the Planning Scheme.

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 which 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) which were identified with regard to the relevant strategic actions.

Table 10.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Planning Scheme, 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.

The *Development Management Process* in the Council will provide passive monitoring of various indicators and targets on an application by application basis. Where significant adverse 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

A stand-alone Monitoring Report on the significant environmental effects of implementing the Planning Scheme will be prepared before development is commenced in the Second Growth Area (Development Areas 1, 2 and 3) and, subsequently, before development is commenced in the Third Growth Area (Development Areas 6, 7 and 8) (for the sequencing and phasing of development see Chapter 7 in the Planning Scheme). This report should address the indicators set out below.

The Council is responsible for the 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 which corrective action will be considered include:

- The occurrence of flood events;
- Court cases taken by the Department of Arts, Heritage and the Gaeltacht regarding impacts upon archaeological heritage including entries to the RMP;
- Complaints received from statutory consultees regarding avoidable environmental impacts resulting from development which is granted permission under the Planning Scheme;
- Boil notices on drinking water; and
- Fish kills.

**Table 10.1 Selected Indicators, Targets and Monitoring Sources**

<b>Environmental Component</b>	<b>Selected Indicator(s)</b>	<b>Selected Target(s)</b>	<b>Source</b>	<b>Monitoring Frequency</b>
<b>Biodiversity, Flora and Fauna</b>	B1i: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1i: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Planning Scheme <sup>98</sup>	a) Department of Arts, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive b) Consultations with the NPWS.	a) Every 6 years b) At monitoring evaluation - see Section 10.4
	B1ii: Conservation status of relevant Tuffa springs	B1ii: Maintenance of favourable conservation status of relevant Tuffa springs	To be coordinated and carried out jointly by developers within catchment of springs	At 5 yearly intervals
	B2i: Percentage loss of functional connectivity without remediation resulting from development provided for in the Planning Scheme	B2i: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Planning Scheme	a) CORINE mapping resurvey b) Development Management Process in the Council	a) Unknown b) Per granted permission; compile at monitoring evaluation - see Section 10.4
	B2ii: Status and relevance of biodiversity related measures contained within the Planning Scheme and the Biodiversity Plan	B2ii: Ensure continuing compliance with and relevance of, as appropriate, biodiversity related measures contained within the Planning Scheme and the Biodiversity Plan	To be assessed by the Council	After commencement of development

<sup>98</sup> Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- (a) no alternative solution available;
- (b) imperative reasons of overriding public interest for the plan to proceed; and
- (c) adequate compensatory measures in place.

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source	Monitoring Frequency
<b>Biodiversity, Flora and Fauna (continued)</b>	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for in the Planning Scheme	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for in the Planning Scheme	a) CORINE mapping resurvey b) Development Management Process in the Council c) Consultations with the NPWS.	a) Unknown b) Per granted permission; compile at monitoring evaluation - see Section 10.4 c) At monitoring evaluation - see Section 10.4
	B3ii: Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976.	B3ii: No significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976	a) CORINE mapping resurvey b) Development Management Process in the Council c) Consultations with the NPWS.	a) Unknown b) Per granted permission; compile at monitoring evaluation - see Section 10.4 c) At monitoring evaluation - see Section 10.4
	B3iii: Population and spatial extent of bats/bryophytes in Druids Glen	B3iii: Maintain population and spatial extent of bats/bryophytes in Druids Glen	Data to be collected by the Council	At 5 yearly intervals
<b>Population and Human Health</b>	HH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for in the Planning Scheme, as identified by the Health Service Executive and Environmental Protection Agency	HH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Planning Scheme	Consultations with EPA and Health Service Executive	At monitoring evaluation - see Section 10.4
<b>Soil</b>	S1: Soil extent and hydraulic connectivity	S1: To minimise reductions in soil extent and hydraulic connectivity	Development Management Process in the Council	Per granted permission; compile at monitoring evaluation - see Section 10.4

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source	Monitoring Frequency
<b>Water</b>	W1: 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)	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' <sup>99</sup> by 2015	Data issued under the Water Framework Directive Monitoring Programme for Ireland (EPA, 2006)	Unknown
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	Data issued under the Water Framework Directive Monitoring Programme for Ireland (EPA, 2006)	Unknown
	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 <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i>	Development Management Process in the Council	Per granted permission; compile at preliminary monitoring evaluation - see Section 10.4
<b>Material Assets</b>	M1i: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Planning Scheme	M1i: All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Planning Scheme	Development Management Process in the Council	Per granted permission; compile at monitoring evaluation - see Section 10.4

<sup>99</sup> Good status as defined by the WFD equates to approximately the following in the current national schemes of classification as set out by the EPA:

- *Q4* in the biological classification of *rivers*;
- *Mesotrophic* in the classification of *lakes*; and
- *Unpolluted* status in the Assessment of Trophic Status of *Estuaries and Bays* in Ireland (ATSEBI).

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source	Monitoring Frequency
<b>Material Assets (continued)</b>	M1ii: Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council	M1ii: For the Council to prepare a Water Services Strategic Plan in compliance with the Water Services Act	Dún Laoghaire-Rathdown County Council Water Services Department	Council's Water Services Department to detail status of Plan preparation at monitoring evaluation - see Section 10.4
	M2i: 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 Planning Scheme	M2i: 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 Planning Scheme	a) EPA The Provision and Quality of Drinking Water in Ireland reports (EPA); b) EPA Remedial Action List; and c) Dún Laoghaire-Rathdown County Council Water Services Department	a) Annual/biannual; b) Annual/biannual; c) Council's Water Services Department to detail status of supplies listed on Remedial Action List.
	M2ii <sup>100</sup> : Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council	M2ii: For the Council to prepare a Water Services Strategic Plan in compliance with the Water Services Act	Dún Laoghaire-Rathdown County Council Water Services Department	Council's Water Services Department to detail status of Plan preparation at monitoring evaluation - see Section 10.4
<b>Air and Climatic Factors</b>	C1: Percentage of population working within the Planning Scheme area travelling to work by public transport or non-mechanical means	C1: An increase in the percentage of the population travelling to work by public transport or non-mechanical means	Central Statistics Office	Next Census

<sup>100</sup> Indicator and Target M2i are the same as Indicator and Target M1

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source	Monitoring Frequency
<b>Cultural Heritage</b>	CH1: Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and the context of the above within the surrounding landscape where relevant) - protected	CH1: Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant)	a) Development Management/ Enforcement Processes in the Council; and b) Consultation with Department of Arts, Heritage and the Gaeltacht.	a) Per granted permission/ enforcement action; compile at monitoring evaluation - see Section 10.4 b) Compile at monitoring evaluation - see Section 10.4
	CH2: Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected	CH2: Protect entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant)	a) Development Management/ Enforcement Processes in the Council; and b) Consultation with Department of Arts, Heritage and the Gaeltacht.	a) Per granted permission/ enforcement action; compile at monitoring evaluation - see Section 10.4 b) Compile at monitoring evaluation - see Section 10.4

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source	Monitoring Frequency
<b>Landscape</b>	<p>L1: The protection and enhancement of all key vistas and views designated by the Dún Laoghaire-Rathdown County Development Plan 2010-2016</p> <p>L2: The protection and enhancement of all views and panoramas to key local vantage points and civic buildings in the surrounding area, and within the Planning Scheme itself as identified in Chapter 2 of the Planning Scheme</p> <p>L3: The incorporation of key vantage points/panoramas within core areas of new development</p> <p>L4: The creation of a sense of place and coherence/ appreciation for the overall setting and context of Cherrywood</p> <p>L5: The establishment of principal visual axes of the public realm incorporate vistas towards significant external landscape features that enhance the character and distinctiveness of the Planning Scheme Area</p> <p>L6: The protection and enhancement of views towards local skylines formed by the enclosing ridges of the deeply incised stream corridors adjacent to and within the Planning Scheme</p>	<p>L1: The successful implementation of the Planning Scheme will result in the Indicators L1 to L6 being achieved</p> <p>L2: No contraventions of the landscape provisions of the Dún Laoghaire-Rathdown County Development Plan 2010-2016</p>	Assessment by the Council	a) Per granted permission; compile at monitoring evaluation - see Section 10.4

## Section 11 SEA Summary Table

Below is a summary table outlining how likely significant effects (if unmitigated) are linked to relevant mitigation measure(s) - which have been integrated into the Planning Scheme - and indicator(s) which will be used for monitoring.

**Table 11.1 SEA Summary Table: Likely Significant Effects, Mitigation Measures and Indicators for Monitoring**

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s) from Planning Scheme and CDP 2010-2016 <sup>101</sup>	Primary Indicator(s) for Monitoring
Loss of biodiversity with regard to Natura 2000 Sites	CDP Policy LHB27 (Biodiversity and Flora and Fauna I, II and III)	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive
Loss of biodiversity with regard to ecological connectivity	Objectives: PD 17, GI 3, GI 9, GI 10, GI 15, GI 16, GI 19, GI 20, GI 21, GI 22, GI 30, GI 35, GI 36, GI 38, GI 39, GI 40, GI 41, GI 42, GI 46 to GI 52, GI 5 to GI 70, GI 75, GI 76 and DA 30	B2: Percentage loss of functional connectivity without remediation resulting from development provided for in the Planning Scheme
Loss of biodiversity with regard to Wildlife Sites and species listed on Schedule 5 of the Wildlife Act 1976	Objectives: PD 17, GI 3, GI 9, GI 10, GI 15, GI 16, GI 19, GI 20, GI 21, GI 22, GI 30, GI 35, GI 36, GI 38, GI 39, GI 40, GI 41, GI 42, GI 46 to GI 52, GI 54 to GI 70, GI 75, GI 76 and DA 30	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in Wildlife Sites resulting from development provided for in the Planning Scheme B3ii: Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976
Spatially concentrated deterioration in human health	Objectives: PD 31, GI 40, DA 20 and DA 42 CDP Policy LHB27 (Air and Noise I)	HH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for in the Planning Scheme, as identified by the Health Service Executive and Environmental Protection Agency
Damage to the hydrogeological and ecological function of the soil resource	Objectives: GI 63 and GI 64	S1: Soil extent and hydraulic connectivity
Adverse impacts upon the status of water bodies	Objectives: GI 16, GI 30, GI 61, GI 63 to GI 67, GI 72 and DA 30 CDP Policy LHB27 (Water Protection II and IV)	W1: 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) W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC
Increase in the risk of flooding	Objectives: PD 17, PD 20, PI 7 to PI 11, GI 10, GI 15, GI 16, GI 21, GI 40, GI 57 to GI 61 CDP Policy LHB27 (Flooding III)	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk

<sup>101</sup> For Mitigation through Integration of Environmental Considerations into the Planning Scheme Primary Land Uses Map see Section 9.3.

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s) from Planning Scheme and CDP 2010-2016 <sup>102</sup>	Primary Indicator(s) for Monitoring
Failure to provide adequate and appropriate waste water treatment	Objective: PI 12 CDP Policy LHB27 (Waste Water I)	M1i: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Planning Scheme M1ii: Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council
Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean	Objectives: PI 1 to PI 5 CDP Policy LHB27 (Drinking Water II)	M2i: 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 Planning Scheme M2ii: Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council
Failure to contribute towards sustainable transport and associated impacts	Objectives: PD 10, PD 24, PD 25, PD 26, PI 13, PI 14, PI 16, PI 17 to PI 19, PI 20, PI 21, PI 22, PI 23, PI 24, GI 1, GI 3, GI 15, GI 17, GI 20, GI 21, GI 23 to GI 29, GI 31 to GI 33, GI 35, GI 40, GI 41, GI 74 to GI 78, DA 1, DA 10, DA 13, DA 19, DA 36, DA 43, DA 46 and DA 47	C1: Percentage of population working within the Planning Scheme area travelling to work by public transport or non-mechanical means
Effects on entries to the Record of Monuments and Places and other archaeological heritage	Objectives: H 1 to H 12, GI 38	CH1: Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and the context of the above within the surrounding landscape where relevant) - protected
Effects on entries to the Records of Protected Structures and other architectural heritage	Objectives: H 13 to H 66, DA 34	CH2: Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected

<sup>102</sup> For Mitigation through Integration of Environmental Considerations into the Planning Scheme Primary Land Uses Map see Section 9.3.

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s) from Planning Scheme and CDP 2010-2016 <sup>103</sup>	Primary Indicator(s) for Monitoring
Occurrence of adverse visual impacts	Objectives: PD 21, PD 27, PD28, PD29, GI 9, GI 19, GI 22, GI 37, GI 38, GI 39, GI 40, GI 41, GI 42, GI 43, GI 44 to GI 48, GI 78, DA 3, DA 11, DA 34 and DA 38	<p>L1: The protection and enhancement of all key vistas and views designated by the Dún Laoghaire-Rathdown County Development Plan 2010-2016</p> <p>L2: The protection and enhancement of all views and panoramas to key local vantage points and civic buildings in the surrounding area, and within the Planning Scheme itself as identified in Chapter 2 of the Planning Scheme</p> <p>L3: The incorporation of key vantage points/panoramas within core areas of new development</p> <p>L4: The creation of a sense of place and coherence/ appreciation for the overall setting and context of Cherrywood</p> <p>L5: The establishment of principal visual axes of the public realm incorporate vistas towards significant external landscape features that enhance the character and distinctiveness of the Planning Scheme Area</p> <p>L6: The protection and enhancement of views towards local skylines formed by the enclosing ridges of the deeply incised stream corridors adjacent to and within the Planning Scheme</p>

<sup>103</sup> For Mitigation through Integration of Environmental Considerations into the Planning Scheme Primary Land Uses Map see Section 9.3.