

# SEA ENVIRONMENTAL REPORT

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AS PART OF PREPARATION OF THE

**STRATEGIC DEVELOPMENT ZONE  
PLANNING SCHEME**

FOR

**POOLBEG WEST**  
(SI No. 279 of 2016)

**for: Dublin City Council**

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Dublin 8



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## List of Abbreviations

<b>AA</b>	Appropriate Assessment
<b>ACA</b>	Architectural Conservation Area
<b>CFRAM</b>	Catchment Flood Risk Assessment and Management
<b>CSO</b>	Central Statistics Office
<b>DAHG</b>	Department of Arts, Heritage, Regional, Rural 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>DECLG</b>	Department of the Environment, Community and Local Government
<b>EIA</b>	Environmental Impact Assessment
<b>EPA</b>	Environmental Protection Agency
<b>EQS</b>	Environmental Quality Standard
<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>NRA</b>	National Roads Authority
<b>NSS</b>	National Spatial Strategy
<b>OPW</b>	Office of Public Works
<b>PAS</b>	Priority Action Substance
<b>RAL</b>	Remedial Action List
<b>RBD</b>	River Basin District
<b>RMP</b>	Record of Monuments and Places
<b>RPA</b>	Register of Protected Areas
<b>RPS</b>	Record of Protected Structures
<b>RPGs</b>	Regional Planning Guidelines
<b>RBMP</b>	River Basin Management Plan
<b>SAC</b>	Special Area of Conservation
<b>SEA</b>	Strategic Environmental Assessment
<b>SEO</b>	Strategic Environmental Objective
<b>SFRA</b>	Strategic Flood Risk Assessment
<b>SI No.</b>	Statutory Instrument Number
<b>SPA</b>	Special Protection Area
<b>UCD</b>	University College Dublin
<b>WFD</b>	Water Framework Directive
<b>WMU</b>	Water Management Unit
<b>WSSP</b>	Water Services Strategic Plan
<b>WMP</b>	Eastern–Midlands Region Waste Management Plan

# 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 European site<sup>1</sup> in view of its conservation objectives.

## Biodiversity and Flora and Fauna

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

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

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

## Environmental Problems

Annex I of Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 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.

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<sup>1</sup> European, or Natura 2000, sites comprise Special Areas of Conservation (designated and protected under the Habitats Directive) and Special Protection Areas (designated and protected under the Habitats Directive). Together these sites form the Natura 2000 network.

## **Protected Structure**

Protected Structure is the term used in the Planning and Development Act 2000 as amended to define a structure included by a planning authority in its Record of Protected Structures. Such a structure shall not be altered or demolished in whole or part without obtaining planning permission or confirmation from the planning authority that the part of the structure to be altered is not protected.

## **Recorded Monument**

A monument included in the list and marked on the map 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 former Department of the Environment, Heritage and Local Government (now Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs) under Section 12 of the National Monuments (Amendment) Act, 1994.

## **Scoping**

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

## **Strategic Actions**

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

## **Strategic Environmental Assessment (SEA)**

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

## **Strategic Environmental Objective (SEO)**

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at international, Community or Member State level and are used as standards against which the provisions of the Draft 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 Strategic Development Zone (SDZ) Planning Scheme for Poolbeg West (SI No. 279 of 2016). It has been undertaken by CAAS Ltd. on behalf of Dublin City Council.

The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation 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 Draft 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 land use planning.

The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 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, which accompanies the Draft Planning Scheme on public display and may be altered in order to take account of recommendations contained in submissions and in order to take account of any changes

which are made to the Draft Planning Scheme on foot of submissions. Members of the planning authority are required to take into account the findings of this Report and other related SEA output during their consideration of the Draft Planning Scheme and before its adoption. On the adoption of the Planning Scheme, an SEA Statement will be prepared which will summarise, inter alia, how environmental considerations have been integrated into the adopted Planning Scheme.

## Section 2 The Draft 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. Dublin City Council was identified as the development agency for the purposes of preparing the Planning Scheme for Poolbeg West.

Where land is designated as an SDZ by Government, Order 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.

On 17<sup>th</sup> May 2016, the Government designated Poolbeg West as an SDZ under S.I. No. 279 of 2016 which states that the Poolbeg West SDZ may principally include: *'residential development, commercial and employment activities including, office, hotel, leisure and retail facilities, port related activities and the provision of educational facilities, transport 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, as appropriate.'*

### 2.2 Content of the Draft Planning Scheme

The Draft Planning Scheme consists of a written statement and plans indicating the type and extent of development to be

permitted in the Poolbeg West SDZ, together with proposals relating to the overall design of development, transportation, the provision of services, the minimisation of any adverse impacts on the environment and the provision of amenities, facilities and services for the community. It is accompanied by the environmental reports of various assessments that have been undertaken alongside the preparation of the Scheme including SEA, Appropriate Assessment, Flood Risk Assessment, Contamination and Remediation Assessment.

The structure of the Draft Planning Scheme is as follows:

1. *Introduction and Background*  
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.
2. *Vision and Key Principles*  
This chapter sets out the vision, key principles, and themes for Poolbeg, which underpin all of the Chapters and aspects of the Planning Scheme.
3. *A New Residential Neighbourhood*  
The ambition is for this area to develop as a balanced community, well integrated with the established community and the existing neighbourhoods.
4. *Community Development*  
Social sustainability is central to the strategy for this Planning Scheme. The regeneration of the Poolbeg West lands is about people and building communities.
5. *Economy and Employment*  
Poolbeg West, given its location close to the core of the city region, its capacity to deliver a significant supply of modern housing and a reasonable quantum of commercial space and its high levels of accessibility, will assist the city in fulfilling its potential.

#### 6. *Movement*

This chapter sets out a sustainable multi modal transport strategy for the plan area to provide for sustainable travel to, from and within Poolbeg.

#### 7. *Infrastructure and utilities*

This chapter identifies the existing infrastructure in the area and sets out the services required to provide for the capacity of development in Poolbeg. It also establishes policies and energy, telecoms, utilities and waste management.

#### 8. *Environment, Green Infrastructure and Open Space*

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

#### 9. *Land use and phasing*

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

#### 10. *Public Realm*

The masterplan will seek to protect the area's existing natural heritage and amenities, develop greening strategies to promote bio-diversity, and leverage the area's maritime heritage to develop cultural activities and the arts.

#### 11. *Urban Structure and Design*

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 Poolbeg.

#### 12. *Implementation and Monitoring*

This chapter sets out parameters for the implementation of the Planning Scheme and future monitoring.

## 2.3 Main Objectives of the Draft Planning Scheme

The Planning Scheme will seek to sensitively regenerate the brownfield sites identified in the SDZ area, cognisant of their context in

terms of urban design, public transport accessibility and spatial connections with the wider area, whilst optimising the potential of these key sites to contribute to the City in the provision of private and public housing, employment, schools, community and recreational facilities.

### 2.3.1 Three Tiered Vision

The three tiered vision for the development of Poolbeg West is to:

- **CONNECT** with the physical, environmental, economic and social fabric of the city, the bay and adjoining neighbourhoods;
- **CREATE** a new sustainable urban neighbourhood that responds to the areas unique location and enhances the enjoyment of local amenities; and
- **PROTECT** the special status of Dublin Bay, the intrinsic functions of the port/municipal facilities and the amenity of existing and future residents.

### 2.3.2 Key Principles

This vision is expanded below as set of Key Principles that will shape the development of the Poolbeg West:

- *Connect with the City*  
Key Principle: Provide strong social economic and transportation connections between Poolbeg West and the rest of the City, including the central area.
- *Connect with the Bay*  
Key Principle: Enhance the lifestyle opportunities for future residents, existing communities and visitors to the area by providing strong physical, visual and ecological connections to Dublin Bay.
- *Connect with the Neighbourhoods*  
Key Principle: Promote the integration of Poolbeg West with the surrounding communities of Irishtown, Ringsend and Sandymount.
- *Create a Sustainable Neighbourhood*  
Key principle: Establish a new urban neighbourhood that sustains the future population and workforce of Poolbeg West

and complements and enhances the services available in surrounding communities.

- *Create a Quality Place*

Key Principle: Ensure the highest standards of urban design and place making are applied to Poolbeg West in response to the unique qualities of the peninsula and surrounding neighbourhoods.

- *Create a Destination*

Key Principle: Increase and enhance opportunities for people to enjoy the amenities of the peninsula and surrounding areas.

- *Protect Dublin Bay*

Key principle: Ensure that all measures are taken to mitigate against any potential impacts on Dublin Bay and its environs.

- *Protect the Intrinsic Operations of the Port and Municipal Facilities*

Key principle: Ensure that the development of Poolbeg West and the ongoing operations of Dublin Port and municipal facilities are mutually taken in account and integrated into the urban structure of the City.

- *Protect and Enhance the Amenity of Residents*

Key Principle: To ensure that the well-being and safety of residents is not adversely affected by nearby industries and the threats of Climate Change and that the amenities of existing and future residents are protected and enhanced.

## 2.4 Relationship with other relevant Plans and Programmes

The Planning Scheme has been prepared to accord with the hierarchy for land-uses and spatial plans and other relevant policies at national, regional and city level, including those listed below and detailed in Appendix I<sup>2</sup> (see also Section 4, Section 5 and Section 9).

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<sup>2</sup> Appendix I is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive,

In particular, the SDZ Planning Scheme accords with the following hierarchy of strategies and plans:

The **National Spatial Strategy 2002-2020** (NSS) recognises that Dublin as the capital city plays a vital national role and that the performance of its economy is essential to the success and competitiveness of the national economy. In order to sustain this role as the engine of the economy, it advocates the physical consolidation of Dublin. The SDZ lies at the heart of the metropolitan core. Its capacity to provide significant levels of private and public housing, employment, schools, community and recreational facilities, make it a valuable resource to allow for innovation, enterprise and employment in Dublin, and as such it fully accords with the NSS. It is anticipated that the emphasis will be retained in the forthcoming National Planning Framework. The **National Development Plan 2007-2013** (NDP) also acknowledges that the wider Docklands regeneration has been a factor that has contributed to the success of the Dublin Gateway.

The **Regional Planning Guidelines for the Greater Dublin Area 2010-2022** (RPGs) translates the national strategy to the regional level with a similar emphasis on Dublin as the driver of national development and the need to physically consolidate the growth of the Metropolitan Area. The RPGs settlement hierarchy seeks to prioritise and focus investment and growth to achieve integration of infrastructure, employment and new housing. In this case, the SDZ would facilitate the consolidated growth of the Metropolitan Area, while at the same time allowing for the provision of infrastructure, employment and new housing (see Paragraph 15.1.1.9 of Dublin City Development Plan 2016-2022).

The **Dublin City Development Plan 2016-2022** reinforces these higher level plans with the promotion of the intensification and consolidation of the city. It seeks to achieve this by way of regeneration and renewal of the inner city and redevelopment of brownfield areas. It also emphasises the city's role as the national gateway and key economic driver of growth for the region and state as a whole, with the need for the city to develop sufficient critical mass to compete at an international

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Regulation, Plan or Programme to become familiar with the full details of each.

level. The proposed SDZ ensures that these policies and objectives of the development plan can be fast-tracked.

In particular, the **development plan core strategy** designates the Docklands, including Poolbeg West SDZ, as a Strategic Development Regeneration Area (SDRA). SDRAs relate to important brownfield sites with the potential to deliver a significant quantum of mixed uses. The SDZ exhibits all these characteristics with an opportunity for continued physical and social regeneration of the Poolbeg Peninsula, which in turn aids in the emergence of the overall Docklands area as a new and vibrant economic, cultural and amenity quarter of the city. The City Development Plan also promotes an active land management approach to regeneration. This scheme is part of the policy.

The **Dublin Port Masterplan 2012-2040** sets out a vision for the operations of the port and land utilisation. It also acknowledges the importance of the emerging cruise liner tourism and potential of the natural amenities of Dublin Bay. The SDZ will ensure a synergy is created with the masterplan vision for the port lands as a significant employment hub with emerging tourism potential.

The **Docklands Masterplan 2008** set out comprehensive guidance for the physical, economic and social regeneration of the entire functional area of Docklands, addressing issues such as land use transportation, infrastructure, urban design, arts, tourism and leisure. It underscored the importance of the regeneration strategy and provides a valuable platform to renew and up-date the regeneration strategy for the SDZ lands.

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 and described in Appendix I.

Examples of Environmental Protection Objectives include the aim of the EU Habitats Directive - which is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States - and the purpose of the Water Framework Directive - which is to establish a framework for the protection of inland surface waters,

transitional waters, coastal waters and groundwater which, among other things, prevents deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving good status.

## 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 preparation of the Planning Scheme, SEA, Appropriate Assessment (AA), Strategic Flood Risk Assessment (SFRA) and Contamination and Remediation Assessment (CRA).

The Draft Planning Scheme and associated SEA, AA, SFRA and CRA documents were prepared in an iterative manner whereby multiple revisions of each document were prepared, each informing subsequent iterations of the others.

To facilitate the iterative approach in the Planning Scheme process, numerous meetings were held between combinations of CAAS, Dublin City Council, the Environmental Protection Agency (EPA) and National Parks and Wildlife Service (NPWS).

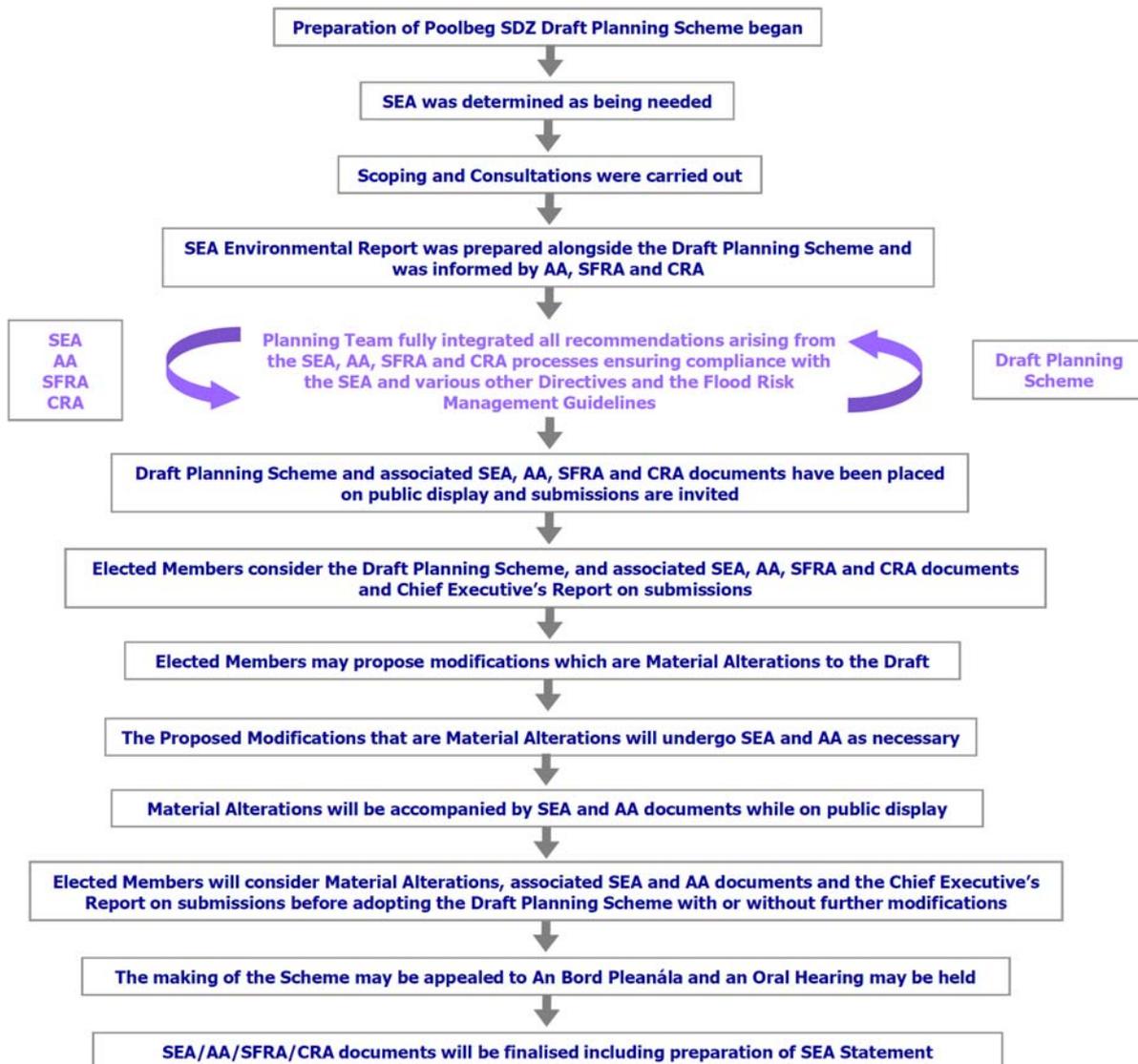


Figure 3.1 SDZ Planning Scheme and SEA/AA/SFRA/CRA Stages

## 3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment

### 3.2.1 Appropriate Assessment

Appropriate Assessment (AA) Screening and Stage 2 AA have been undertaken alongside the Draft Planning Scheme. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The Stage 2 AA concluded that the Planning Scheme will not affect the integrity of the Natura 2000 network of designated sites<sup>3</sup>.

The preparation of the Draft Planning Scheme, SEA and AA has taken place concurrently and the findings of the AA have informed both the Draft Planning Scheme and the SEA. Various provisions have been integrated into the Draft Planning Scheme through the AA process.

### 3.2.2 Integrated Biodiversity Impact Assessment

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

#### Scoping

- Biodiversity-relevant issues were identified for consideration at scoping stage and these are now detailed in Section 4.3.

#### Baseline

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

#### Alternatives

- Impacts upon biodiversity are considered under each of the alternatives.

<sup>3</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/project to proceed; and  
 (c) adequate compensatory measures in place.

#### Impact assessment

- Effects on biodiversity are identified and assessed and the AA gives consideration to the interrelationship between biodiversity and potential effects on European sites.

#### Mitigation and monitoring

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

#### Reporting

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

#### Communication and consultation

- Submissions including those from the Environmental Protection Agency and the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs have been taken on board.
- The preparation of the Draft Planning Scheme, SEA and AA has taken place concurrently and the findings of the AA have informed both the Draft Planning Scheme and the SEA.

## 3.3 Strategic Flood Risk Assessment

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

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

## 3.4 Contamination and Remediation Assessment

A Contamination and Remediation Assessment (CRA) was undertaken that provides a review of available documentation on contamination, a conceptual site model for the area of the Planning Scheme and a high-level qualitative risk assessment to establish low, medium and high risk areas. It also includes outline remediation measures including requirements

relating to detailed site-specific investigations and contaminated land risk assessments at project level.

## **3.5 Scoping**

### **3.5.1 Introduction**

In consultation with the relevant authorities, the scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental components which are specified under the SEA Directive<sup>4</sup>.

As the Draft 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.

### **3.5.2 Scoping Notices**

All relevant environmental authorities identified under the SEA Regulations as amended, were 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<sup>5</sup>.

### **3.5.3 Submissions and Responses**

Submissions were made by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Environmental Protection Agency during the SEA Scoping/Draft Planning Scheme-preparation process. These submissions influenced the scope of the

assessments as detailed in the final SEA Scoping Report.

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

## **3.7 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, alternative scenarios for the Draft Planning Scheme are examined in Section 7.

## **3.8 The SEA Environmental Report**

In this SEA Environmental Report - which is placed on public display alongside the Draft Planning Scheme and other associated documents - the likely environmental effects of the Draft 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 the Draft Planning Scheme.

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

The Environmental Report will be updated in order to take account of recommendations contained in submissions and in order to take

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<sup>4</sup> These components comprise biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

<sup>5</sup> Environmental authorities notified included the Environmental Protection Agency, Department of Communications, Energy and Natural Resources, Department of Agriculture, Food and Marine, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Dublin Port.

account of changes which are made to the original, Draft Planning Scheme that is being placed on public display.

The Environmental Report is required to contain the information specified in Schedule 2 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended (see Table 3.1).

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

### **3.9 The SEA Statement**

On the making of the Planning Scheme by the Council, an SEA Statement will be prepared which will include 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 SEA Environmental Report and consultations have been taken into account, summarising the key issues raised in consultations and in the Environmental Report indicating what action was taken in response;
- The reasons for choosing the 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 as adopted was selected; and
- The measures decided upon to monitor the significant environmental effects of implementing of the Planning Scheme.

**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 Planning Scheme	Sections 5, 7, 8 and 9
(F) Describe the likely significant effects on the environment	Sections 7 and 8
(G) Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan or programme	Section 9
(H) Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties)	Sections 6, 7 and 8
(I) A description of proposed monitoring measures	Section 10
(J) A non-technical summary of the above information	Non-Technical Summary
(K) Interrelationships between each environmental topic	Addressed as it arises within each Section

## Section 4 Environmental Baseline

### 4.1 Introduction

Reflecting the specifications in the SEA Directive, the relevant aspects (those which have the greatest potential to be affected by implementation of the Draft Planning Scheme) of the current state of the environment for the following environmental components is provided in this section:

- Biodiversity, Flora and Fauna;
- Population and Human Health;
- Soil;
- Water;
- Air and Climatic Factors;
- Material Assets;
- Cultural Heritage;
- Landscape; and
- The interrelationship between the above factors.

Article 5 of the SEA Directive, in accordance with the established European principle of subsidiarity, 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.

In this context, the information identified is relevant to lower tier project development and associated environmental assessments.

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, Dublin City Council made

resources available to facilitate the undertaking of the SEA and the following associated assessments:

- Appropriate Assessment (AA);
- Strategic Flood Risk Assessment (SFRA); and
- Contamination and Remediation Assessment.

The following studies have informed the baseline description provided in this section:

- Dublin City Development Plan 2016-2022 and associated SEA and AA;
- North Lotts and Grand Canal Dock Planning Scheme 2013 and associated SEA and AA;
- Alexandra Basin Project 2014;
- Dublin Port Master Plan 2012-2040;
- Dublin Waste to Energy Project 2006;
- Ringsend Wastewater Treatment Improvement 2012; and
- Dublin City Biodiversity Action Plan 2015-2020.

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

The implementation of the Planning Scheme is likely to give rise to the following residual<sup>6</sup> adverse environmental effects:

- Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces.
- Potential interactions with residual effects on environmental vectors. This has been mitigated by provisions which have been integrated into the Planning Scheme, including those relating to sustainable mobility and infrastructural provision.
- Losses of soil function on made ground.
- Any increase in loadings as a result of development (these would be in compliance with River Basin Management Plans).
- Development to both: avoid areas of elevated flood risk; and not increase areas of elevated flood risk.

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<sup>6</sup> Residual effects are the final or intended impacts that occurs after proposed mitigation measures have taken effect as planned.

- Residual wastes (these would be disposed of in line with higher level waste management policies).
- An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable mobility.
- Potential alteration to the context and setting of architectural heritage (this would occur in compliance with legislation).
- Potential alteration to the context and setting of archaeological heritage (this would occur in compliance with legislation).
- Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Planning Scheme.
- The Planning Scheme contributes towards the protection of amenities. These semi natural amenities will change overtime as a result of natural changes in vegetation cover combined with new developments.

In the absence of a new Planning Scheme, none of the adverse effects detailed above would result due to the implementation of the Scheme. However applications for permission for new projects would continue to be made under the regime of the Dublin City Development Plan and associated zonings (Figure 6.1). Compliance with the mitigation measures outlined under Section 9 of this report would be necessary in order to help ensure that the following significant adverse environmental effects do not occur:

- Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna.
- Habitat loss, fragmentation and deterioration, including patch size and edge effects.
- Disturbance and displacement of protected species.
- Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated.
- Interactions if effects upon environmental vectors such as water and air are not mitigated.
- Loss of soil function.
- Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term.
- Adverse impacts upon the status of water bodies arising from changes in quality, flow and/or morphology.
- Interactions with flood risk.
- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome

and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).

- Increases in waste levels.
- Emissions to air including greenhouse gas emissions and other emissions.
- Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks.

In the absence of the Planning Scheme that has provided further detail on the existing City Development Plan provisions, development would be less coordinated and consequently it would be more uncertain as to whether the following positive effects would be achieved:

- Facilitates lower overall effects on ecology (including designated sites, ecological connectivity, habitats) – due to utilisation of already developed but vacant lands and use of existing utilities.
- Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas, would mitigate conflicts with ecological resources (habitats) along the southern boundary.
- Facilitates protection of ecology with respect to the provision of water services.
- Facilitates contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, including water.
- Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:
  - Potential exposure of dwellings/schools/hospitals/nursing homes to industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils);
  - Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site.
- The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.
- Facilitates protection of human health with respect to the provision of water services and the provision of transport infrastructure integrated with land use planning – and associated interactions with sustainable mobility, emissions and energy usage.
- Facilitates contribution towards the protection of human health as a result of contributing towards the protection of environmental vectors, including water.
- Facilitates lower overall effects on soil – due to utilisation of already developed but vacant lands and use of existing utilities.
- Facilitates management of potentially contaminated soils.

- Facilitates lower effects on ground and surface waters due to utilisation of already developed but vacant lands and use of existing utilities.
- Provides for planned infrastructure including water services infrastructure and transport infrastructure.
- Make use of existing water services.
- Facilitates contribution towards a shift from car to more sustainable and non-motorised transport modes.
- Facilitates contribution towards reducing increases in travel related greenhouse gas and other emissions to air that would occur as a result developing sites that are further from the City and less well serviced.
- A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and the infiltration of a rapid bus loop into the site is provided for. Efforts to improve sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases) would be further contributed towards by the provision of community uses in the west of the site.
- Contribution towards the protection of cultural heritage by facilitating compliance with protection legislation.
- Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas, would mitigate loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site.
- The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.

## 4.3 Biodiversity and Flora and Fauna

### 4.3.1 Overview

The wider Dublin Bay area is among the most highly designated locations in the country for biodiversity. The zone of influence<sup>7</sup> of the Planning Scheme beyond the area to which it relates with respect to impacts upon ecology via surface waters upon ecological resources – including designated ecology – can be estimated through a precautionary approach to include areas within 15km of the SDZ boundary, although different features of the Planning Scheme would have differing zones of influence.

Despite its location surrounded by a city, Dublin Bay is an internationally significant wildlife reserve, principally on account of wading birds that over-winter in the area. These birds have complex requirements that include feeding areas and areas to roost (rest) when the strands are covered by high tide. The shore areas and Irishtown Nature Park also contain locally significant bird and wildlife resources that have additional significance on account of their location at the heart of the City.

Ecological designations within SDZ include:

- Candidate Special Areas of Conservation<sup>8</sup> (cSACs) and Special Protection Areas<sup>9</sup> (SPAs);
- Certain entries to the Water Framework Directive Register of Protected Areas; and
- Proposed Natural Heritage Areas (pNHAs).

Protected Species include:

- Annex IV (Habitats Directive) species of flora and fauna, and their key habitats (i.e. breeding sites and

resting places), which are strictly protected wherever they occur, whether inside or outside the above sites, e.g. otter and bats;

- Other species of flora and fauna and their key habitats which are protected under the Wildlife Acts, 1976-2000, wherever they occur; and
- 'Protected species and natural habitats' as defined in the European Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including: Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur) and Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur).

### 4.3.2 Candidate Special Areas of Conservation

The following 11 Special Areas of Conservation (SACs) have been identified within the wider area of which the SDZ is part:

Site Code	Site Name
000199	Baldoyle Bay SAC
000202	Howth Head SAC
000205	Malahide Estuary SAC
000206	North Dublin Bay SAC
000210	South Dublin Bay SAC
000713	Ballyman Glen SAC
000725	Knocksink Wood SAC
001209	Glenasmole Valley SAC
002122	Wicklow Mountain SAC
002193	Irelands Eye SAC
003000	Rockabill to Dalkey Island SAC

Figure 4.1 maps SACs (and SPAs) within 15km of the SDZ.

<sup>7</sup> Following the Source-Pathway-Receptor model the Zone of Influence (ZOI) is determined based on the characteristics of the development and the foreseen distribution of likely effects through the pathways identified.

<sup>8</sup> Designated under the Habitats Directive (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora).

<sup>9</sup> designated under the Birds Directive (EC Directive 200/147/EC on the conservation of wild birds)

### 4.3.3 Special Protection Areas

The following 8 Special Protection Areas (SPAs) have been identified the wider area of which the SDZ is part:

Site Code	Site Name
004006	North Bull Island SPA
004016	Baldoyle Bay SPA
004024	South Dublin Bay and River Tolka Estuary SPA
004025	Broadmedow/Swords Estuary SPA
004040	Wicklow Mountains SPA
004113	Howth Head Coast SPA
004117	Irelands Eye SPA
004172	Dalkey Island SPA

Figure 4.1 maps SPAs (and SACs) within 15km of the SDZ.

### 4.3.4 Natural Heritage Areas

There are a number of pNHAs located in vicinity of the Planning Scheme: Booterstown Marsh pNHA, South Dublin Bay pNHA, Dolphins, Dublin Dock pNHA, North Dublin Bay pNHA, Grand Canal pNHA and Royal Canal pNHA. The following 24 pNHAs sites have been identified the wider area of which the SDZ is part:

Site Code	Site Name
000205	Malahide Estuary
001208	Feltrim Hill
001763	Sluice River Marsh
000178	Santry Demense
000199	Baldoyle Bay
000203	Ireland's Eye
000202	Howth Head
002103	Royal Canal
000128	Liffey Valley
002104	Grand Canal
000206	North Dublin Bay
000201	Dolphins, Dublin Docks
000210	South Dublin Bay
001205	Booterstown Marsh
000991	Dodder Valley
001212	Lugmore Glen
001753	Fitzsimon's Wood
001207	Dingle Glen
001206	Dalkey Coastal Zone and Killiney Hill
001211	Loughlinstown Woods
000713	Ballyman Glen
001209	Glenasmole Valley

Site Code	Site Name
001202	Ballybetagh Bog
000725	Knocksink Wood

Figure 4.2 maps pNHAs within 15km of the SDZ.

### 4.3.5 Registers of Protected Areas

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

The River Liffey, its estuary and the Tolka River Estuary are listed on the RPA for Nutrient Sensitive Waters. Nutrient Sensitive Areas comprise nitrate vulnerable zones designated under the Nitrates Directive (91/676/EEC) and areas designated as sensitive under the Urban Waste Water Treatment Directive (91/271/EEC).

The SDZ occurs is a part of a country-wide RPA designation listed as Groundwater for Drinking Water.

Sandymount Strand, Dollymount Strand and Seapoint are all designated under the RPA for Bathing Water Areas.

The SACs and SPAs listed above and their associated waters are listed on RPAs for water dependent habitats and species.

### 4.3.6 Ramsar Sites

The Convention of Wetlands of International Importance, especially as Water Fowl Habitat, was established at Ramsar in 1971 and ratified by Ireland in 1984. The main aim of the Convention is to secure the designation by each contracting state of wetlands in its territory for inclusion in a list of wetlands of international importance for waterfowl. This entails the commitment of each contracting state to a policy of protection and management of the designated wetlands, and of formulating and implementing planning so as to promote the conservation of designated wetlands and, as far as possible, the wise use of wetlands in its territory. Ireland presently has 45 sites designated as Wetlands of

International Importance, with surface areas of 66,994 hectares.

There are two Ramsar Sites within vicinity of SDZ Planning Scheme<sup>10</sup>:

- North Bull Island Ramsar wetland site; and
- Sandymount Strand/ Tolka Estuary Ramsar wetland site.

### **4.3.7 Existing Problems**

The biological conditions of Dublin Bay are intensely monitored and any development applications adjacent to the shore are closely scrutinised by official, academic and interest groups. All of these groups will be concerned about potential disturbance during construction and use.

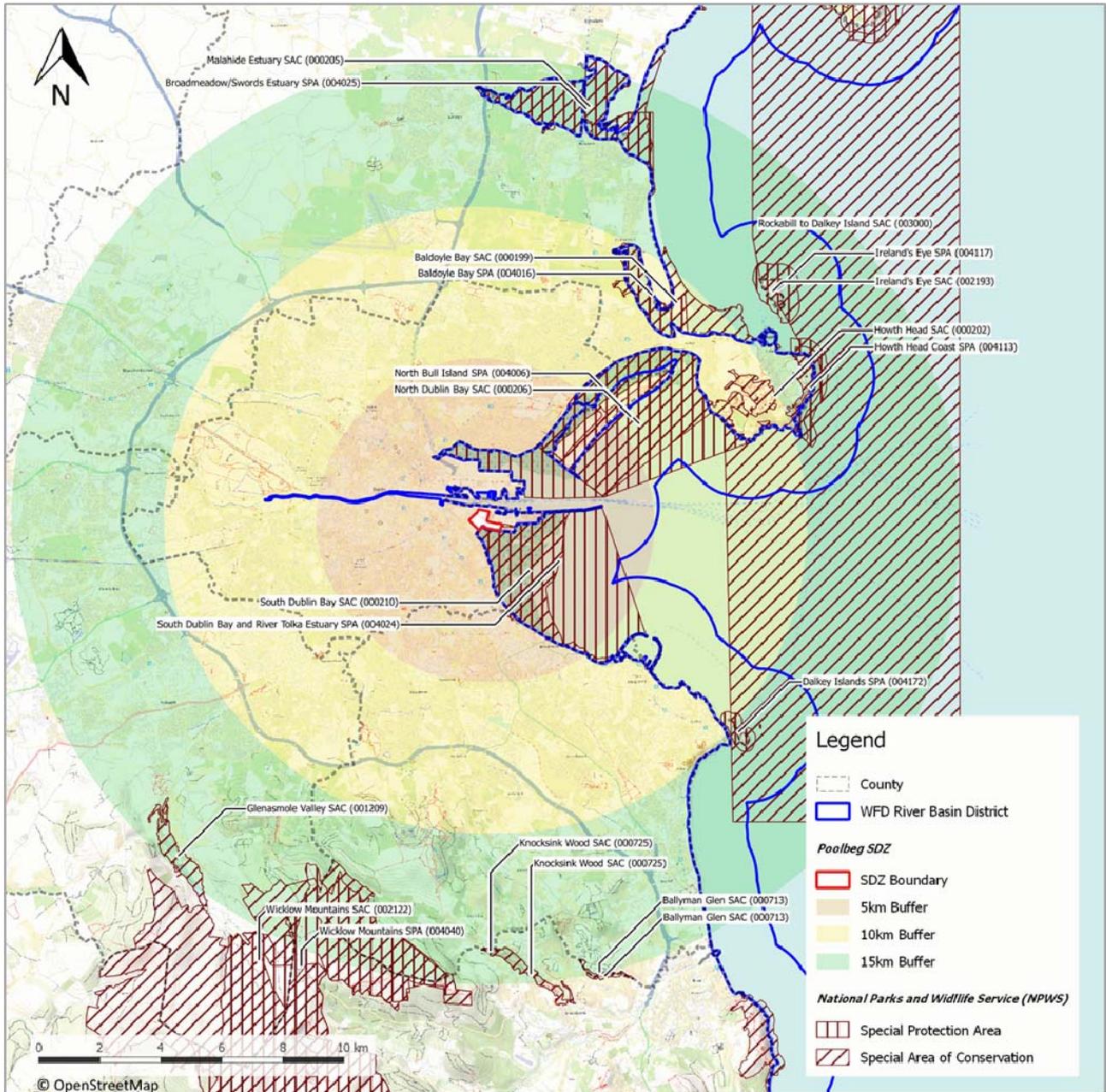
Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna however legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

The Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs' Article 17 report on the Status of EU Protected Habitats and Species in Ireland (2013) identifies many Irish habitats to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. The report identifies that the majority of EU-protected species are, however, in "Favourable" status in Ireland, and stable, although a small number are considered to be in "Bad" status and continue to require concerted efforts to protect them.

The Planning Scheme includes robust measures to contribute towards the protection of biodiversity and flora and fauna.

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<sup>10</sup> Nature Conservation Designations within Dublin Bay and North Bull Island - Dublin City Council's administrative area only as detailed in the Dublin City Biodiversity Action Plan 2015 – 2020.



**Figure 4.1 European Sites – candidate Special Areas of Conservation and Special Protection Areas**

Source: CAAS (2016)



## 4.4 Population and Human Health

### 4.4.1 Population

There are currently no residential uses located on the SDZ lands and closest centres of residential populations are Ringsend to the north of the SDZ and Sandymount to the south. There is an employment population located in the various industrial and port uses in the wider Poolbeg and area.

The southern edge of the SDZ site accommodates a heavily-used walk that leads to the Irishtown Nature Park. It is one of the more heavily used unstructured recreational resources in this part of the City. At low-tide Sandymount Strand is also a popular and much-used amenity for walking and bird-watching.

The Clanna Gael Fontenoy GAA Club and associated parkland immediately adjoins the south-western boundary of the site. The playing fields and parklands are heavily used.

### 4.4.2 Human Health

The impact of implementing the Draft Planning Scheme on human health is determined by the impacts which the 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. 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 (including at Section 4.5 Soil, Section 4.6 Water and Section 4.7 Air and Climatic Factors); and the identification and evaluation of the likely significant environmental effects of implementing the Draft Planning Scheme.

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.

### 4.4.3 Seveso III Sites<sup>11</sup>

Major industrial accidents involving dangerous substances pose a significant threat to humans and the environment; such accidents can give rise to serious injury to people or serious damage to the environment, both on and off the site of the accident. In Europe, a catastrophic accident in the Italian town of Seveso in 1976 prompted the adoption of legislation on the prevention and control of such accidents.

The so-called Seveso-Directive (Directive 82/501/EEC) was subsequently amended in view of the lessons learned from later accidents such as Bhopal, Toulouse or Enschede resulting in the Seveso-II (Directive 96/82/EC).

In 2012 the Seveso-III (Directive 2012/18/EU) was adopted taking into account, amongst other factors, the changes in EU legislation on the classification of chemicals and increased rights for citizens to access information and justice.

The Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the "COMAH Regulations"), implement the Seveso III Directive (2012/18/EU). The purpose of the COMAH Regulations is to lay down rules for the prevention of major accidents involving dangerous substances, and to seek to limit as far as possible the consequences for human health and the environment of such accidents, with the overall objective of providing a high level of protection in a consistent and effective manner.

The intention is to achieve this through tiered controls on the operators of the establishments subject to the regulations - the larger the quantities of dangerous substances present at an establishment, the more onerous the duties on the operator.

<sup>11</sup> This section reproduces some of the information provided by the Health and Safety Authority at [www.hsa.ie](http://www.hsa.ie)

The European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006 and the European Union (Control of Major Accident Hazards Involving Dangerous Substances) (Amendment) Regulations 2013, which implemented the Seveso II Directive (96/82/EC), have been revoked by the European Union (Control of Major Accident Hazards Involving Dangerous Substances) (Revocation) Regulations 2015 (S.I. No. 208 of 2015) and replaced by the COMAH Regulations.

SEVESO III sites (outlined in green) within the wider Poolbeg and Docklands are shown on Figure 4.3 as are the associated Consultation Zones (outlined in red).

Consultation zones of the closest sites are primarily concerned with containing contaminants or pollutants that have the potential to cause harm to environmental vectors such as water (as opposed to direct effects on human health/loss of life). A worst case scenario could involve an accident with potential environmental consequences. There is tertiary containment on these sites with material contained most immediately by a tank, then by a bund then by a berm/other containment.

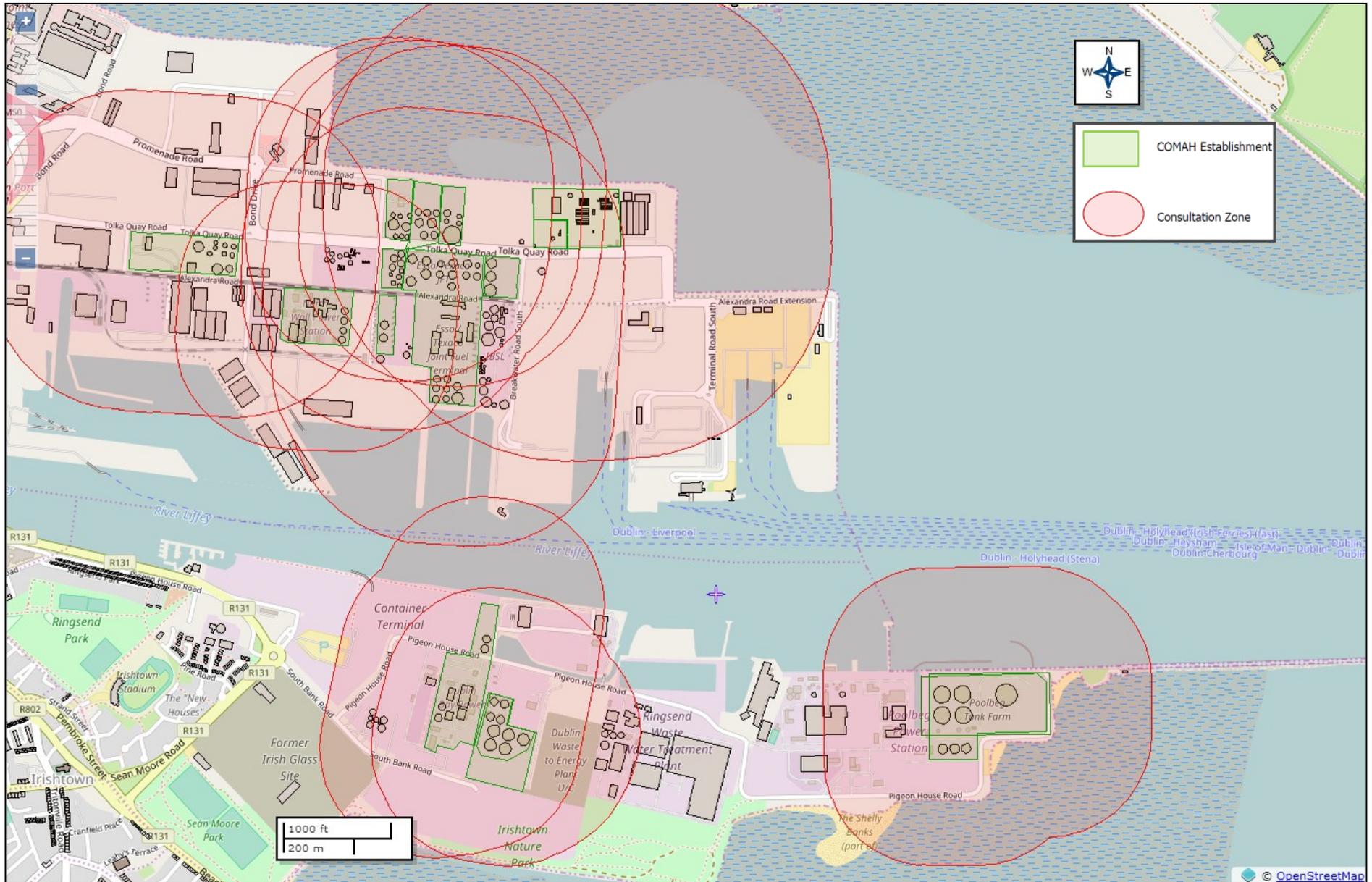
The HAS were consulted as part of the Planning Scheme preparation process and identified that: any accident would be expected to be contained on the relevant sites; and SEVESO III sites do not pose particular risks with respect to the emerging provision of new housing development in the south/west of the SDZ.

#### 4.4.4 Existing Problems

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

which is a relatively low percentage when compared with other areas across the country.

In the absence of mitigation, human health has the potential to interact with environmental problems identified under other sections including at Sections 4.5.3 Contamination and Remediation Assessment, 4.6.6 Flooding, 4.7.2 Ambient Air Quality, 4.7.3 Odour and 4.7.4 Noise.



**Figure 4.3 COMAH establishments in the Dublin Port area and their consultation distances**

Source: DCC (2016)

## 4.5 Soil

### 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 County Geological Sites

The audit of County Geological Sites in Dublin City was completed in 2014. The Dublin City Geological Heritage Project was supported by the Heritage Council, the Geological Survey of Ireland and Dublin City Council. The resulting report was an action of the Dublin City Heritage Plan 2002 - 2006.

According to the GSI, there are 12 Geological Sites within the administrative region of Dublin City Council area. One of the audited sites was found in vicinity of the SDZ Planning Scheme area - North Bull Island in Dublin Bay (as shown on Figure 4.4). North Bull Island CGS (Site code: IGH13) is a sandy barrier truncated at the southern end by a breakwater running out from Clontarf. It is a sand spit formed since the building of the North Wall, and is continually evolving<sup>12</sup>.

<sup>12</sup> [www.gsi.ie](http://www.gsi.ie) (Parkes, M., Gallagher, V., Hennessy, R., Meehan, R. and Gatley, S. 2014. *The Geological Heritage*

### 4.5.3 Contamination and Remediation Assessment

All of the SDZ consists of man-made fill placed over estuarine deposits. Some of these sites have been resolved (former Glass Bottle Site) some are still used for, or are adjacent to, potentially contaminating activities. It should be assumed that there is potential to encounter sites of historical contamination throughout the unresolved portions of the site. The Irishtown Nature Park at the eastern extremity is also a former landfill.

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species.

In addition to having significant contamination potential the SDZ site is underlain by deposits that include areas of very high permeability and hydraulic connectivity – both within the deposits and with the marine and estuarine tidal waters that immediately adjoin.

A Contamination and Remediation Assessment (CRA) was undertaken that provides a review of available documentation on contamination, a conceptual site model for the area of the Planning Scheme and a high-level qualitative risk assessment to establish low, medium and high risk areas. It also includes outline remediation measures including requirements relating to detailed site-specific investigations and contaminated land risk assessments at project level.

The Conceptual Model from the CRA is provided at Figure 4.5 while the Qualitative Risk Assessment is provided at Figure 4.6.

### 4.5.4 Existing Problems

Existing problems under the environmental component of soil relate to contamination issues that are detailed under Section 4.5.3.

The Planning Scheme includes robust measures to facilitate remediation of relevant parts of the site.

*of Dublin City. An audit of County Geological Sites in Dublin City.* Geological Survey of Ireland. Unpublished Report.)



**Figure 4.4 North Bull Island County Geological Site**

Source: GSI (2016)



### Conceptual Site Model [Plan]

The Site is initially characterised as having Five Regimes;

#### A The Western Lands – the former Irish Glass Bottle site

These filled lands were formerly occupied by the Irish Glass Bottle company. The lands have been remediated by the excavation and disposal of the upper layers of contaminated soil and by the establishment of a resolved surface to receive new development.

#### B The Northern Lands – Dublin Port lands

These filled lands are currently in a variety of uses – these include tanked storage areas, port-related activities and transport and logistics activities – as well as a road network.

#### C The Central Lands – the Fabrizia site

These filled lands are currently unused. The previous land use history is unclear – though parts are thought to have been used for the disposal of wastes from the IGB operations.

#### D The Eastern Lands – the ESB site

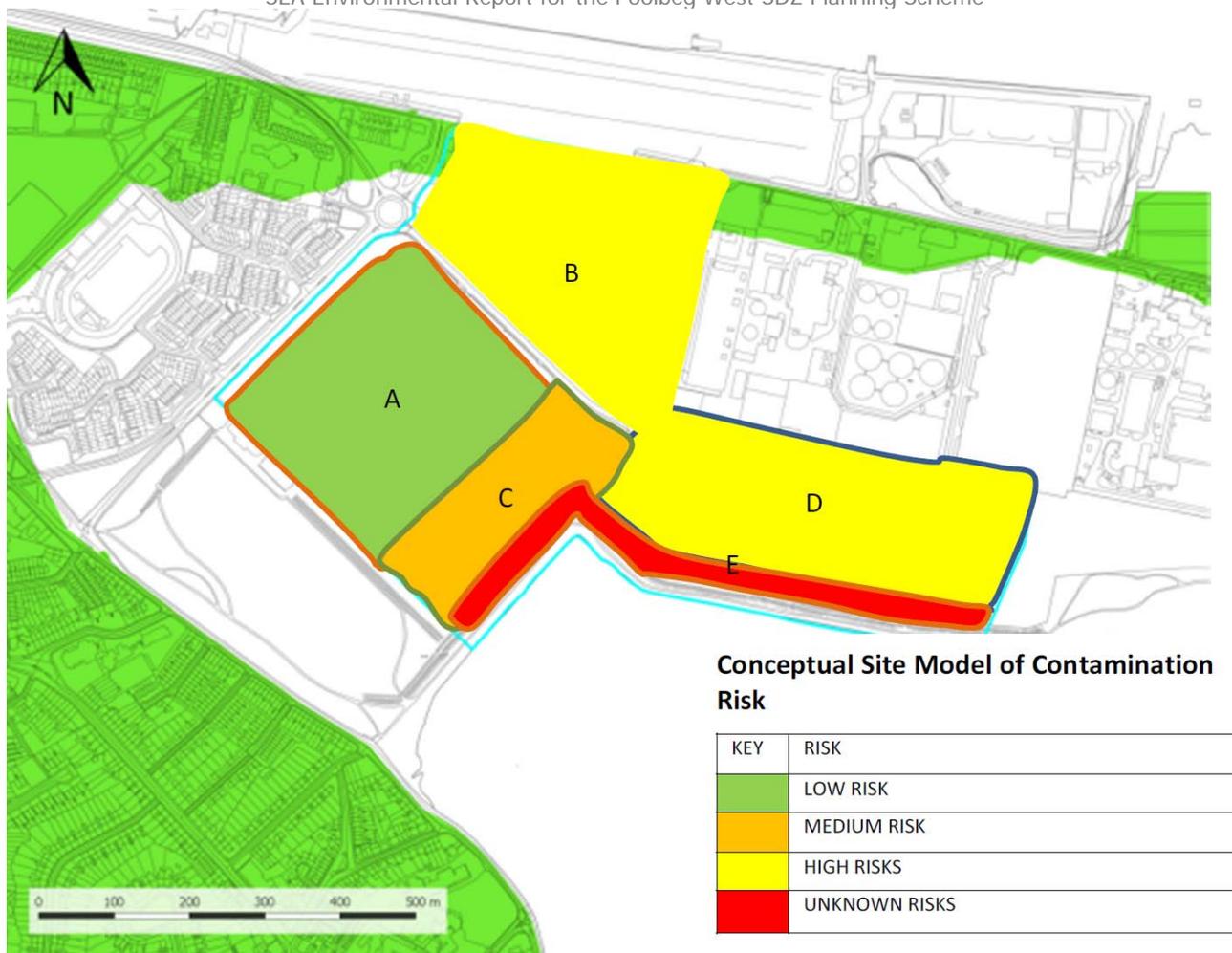
These filled lands were used for the disposal of municipal wastes, latterly as an amenity area associated with the adjoining power plant and subsequently have been used as an area for the manufacturing and dispatch of under-sea piping and more recently as a construction compound for an adjoining development project.

#### E The Shore Lands

These filled lands were used to enclose and contain placement of municipal waste. Subsequently a raised earthen berm was placed along the northern and western boundary to delineate a shore walk.

**Figure 4.5 Conceptual Model from the SDZ Contamination and Remediation Assessment**

Source: CAAS for Dublin City Council (2016)



**Figure 4.6 Qualitative Risk Assessment from the SDZ Contamination and Remediation Assessment**

Source: CAAS for Dublin City Council (2016)

## 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". 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.

The EU's Common Implementation Strategy Guidance Document No. 20 provides guidance on exemptions to the environmental objectives of the Water Framework Directive.

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

#### 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 SDZ falls within the Eastern River Basin District.

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 Plan

Local Authorities, including Dublin City Council, have prepared Eastern River Basin Management Plan, which is being implemented through, inter alia, the County Development Plan, in order to help protect and improve waters in the County and wider RBDs. These Management Plans provide specific

policies for individual river basins in order to implement the requirements of the WFD.

### 4.6.3 Surface Water

#### 4.6.3.1 Introduction

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.

#### 4.6.3.2 WFD Surface Water Status

The main river catchment within Dublin City is the Liffey and Dublin Bay catchment. The River Liffey is one of the largest sub-catchments in the ERBD.

The SDZ is located to the south of the River Liffey and River Tolka estuaries, with the River Liffey estuary closer to the SDZ. Both estuaries are classified by WFD as transitional waterbodies of *moderate status*<sup>13</sup> (as shown on Figure 4.7). The remaining waters in Dublin Bay, including those bordering the east of the SDZ lands are classified by WFD as coastal waterbodies of *good status*<sup>14</sup> (as shown on Figure 4.8).

<sup>13</sup> Source: EPA (2016) <http://gis.epa.ie/Envision> (Transitional Waterbody WFD Status 2010-2015)

<sup>14</sup> Source: EPA (2016) <http://gis.epa.ie/Envision> (Coastal Waterbody WFD Status 2010-2015)

### 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. The EPA has classified groundwater status in vicinity of SDZ Planning Scheme as being of *good* status.

Groundwater in the wider City area is part of the Dublin Urban Groundwater body that flows in a general easterly direction and discharges to the many rivers within the groundwater body or directly to Dublin Bay<sup>15</sup>.

#### 4.6.4.3 Groundwater Productivity and Vulnerability

The Geological Survey of Ireland (GSI) rates groundwaters according to both their vulnerability to pollution and their productivity.

Groundwater vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities. Groundwater vulnerability maps are based on the type and thicknesses of subsoils (sands, gravels, glacial tills (or boulder clays), peat, lake and alluvial silts and clays), and the presence of karst features. Groundwater is most at risk where the subsoils are absent or thin and, in areas of karstic limestone, where

<sup>15</sup> Source: DCC (2013) *North Lotts and Grand Canal Dock Planning Scheme SEA Environmental Report*

surface streams sink underground at swallow holes<sup>16</sup>.

The GSI rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. Ireland's entire land surface is divided into nine aquifer categories. Groundwater productivity rates the value of the groundwater resource.

Most of the Poolbeg peninsula – which is reclaimed from the sea – is not classified for groundwater productivity or vulnerability. Immediately surrounding areas are identified as being of wider areas of low vulnerability and locally important aquifer (bedrock which is only productive in moderate zones).

#### 4.6.5 WFD Registers of Protected Areas

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

For more details on Entries to the RPAs please see Section 4.3.5.

#### 4.6.6 Flooding

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

Lands within the wider area of which the SDZ is part, have the potential to be vulnerable to flooding such as that arising from fluvial (from the River Liffey and River Dodder), tidal and pluvial flooding sources, and this vulnerability could be exacerbated by sea level rise and changes in the occurrence of severe rainfall events and associated flooding. Local conditions such as low-lying lands and slow surface water drainage can increase the risk of flooding.

The Draft Planning Scheme has undergone Strategic Flood Risk Assessment (SFRA) in response to requirements contained in *The Planning System and Flood Risk Management Guidelines for Planning Authorities*

(DEHLG/OPW, 2009). The findings of the SFRA are presented in a report which accompanies the Draft Planning Scheme.

The SFRA facilitated the identification of Flood Risk Zones or areas that are subject to elevated risk of flooding. Only minor parts of the SDZ along its southern/eastern boundary are located within either Flood Zones A or B (see Figure 4.9) – this is due elevated levels of coastal flood risk. The Planning Scheme provides for the retention of the current amenity uses in these areas – this use is compatible with elevated levels of flood risk.

There is no fluvial risk (risk from rivers or streams) identified within the SDZ.

In the surrounding areas, available information on flood risk identifies larger parts of the wider Poolbeg area as being subject to elevated levels of coastal risk and parts of Ringsend and Sandymount as being subject to elevated levels of fluvial and coastal risk.

#### 4.6.7 Existing Problems

Subject to exemptions provided for by Article 4 of the WFD<sup>17</sup>, based on available data on the status of waters within the Dublin City, the transitional water bodies of the River Liffey and River Tolka will need improvement in order to comply with the objectives of the WFD. Note that these classifications in the County are contributed towards by the morphological pressures found along these often urban waterbodies such as culverts and river straightening.

There are relatively minor areas of land at elevated levels of flood risk within the SDZ and these the Planning Scheme provides for the retention of the current amenity uses in these areas – this use is compatible with elevated levels of flood risk.

<sup>16</sup> Source: Geological Survey of Ireland (2014) Metadata

<sup>17</sup> Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the relevant river basin management plan.



**Figure 4.7 Transitional Waterbody WFD Status 2010-2015**

Source: EPA (2016)

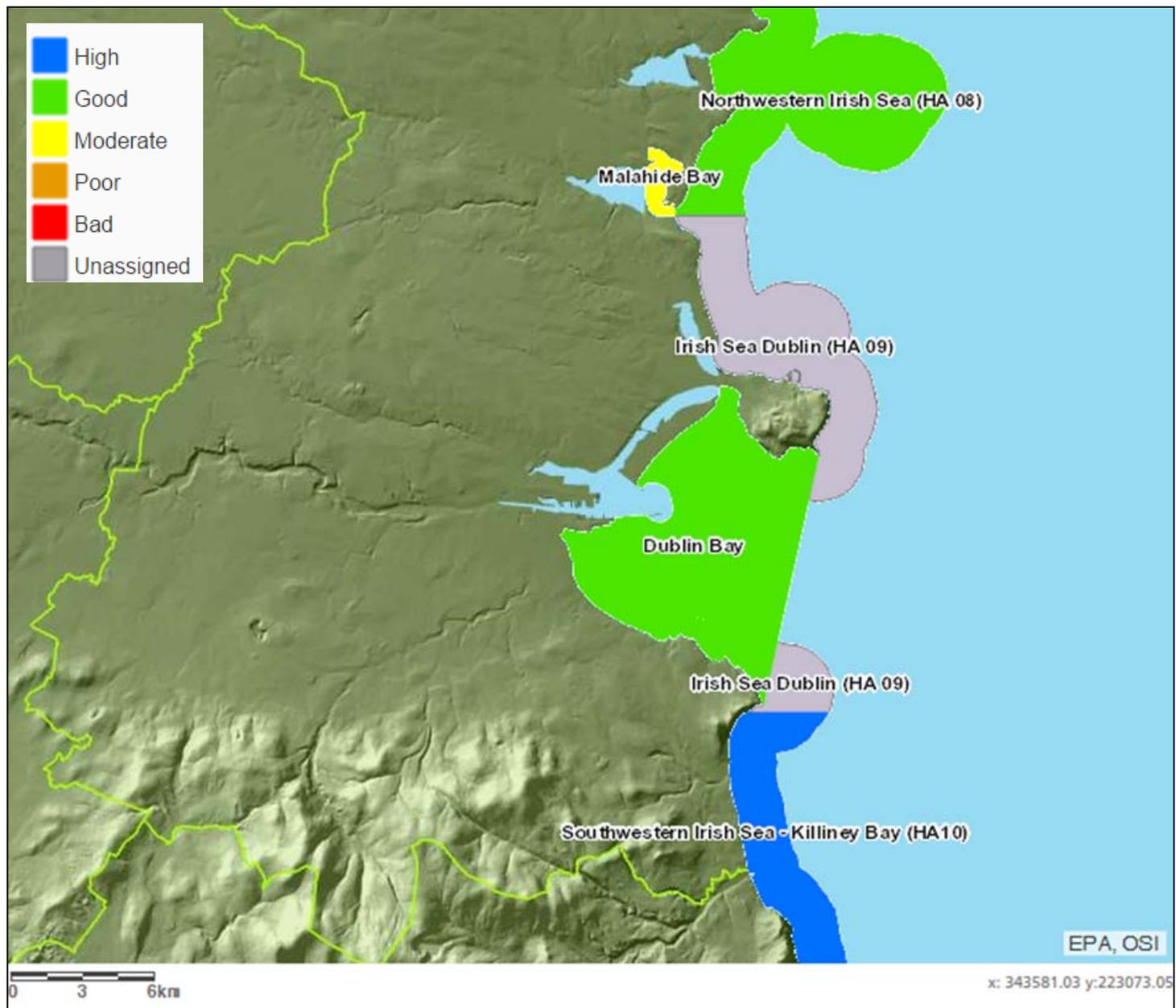
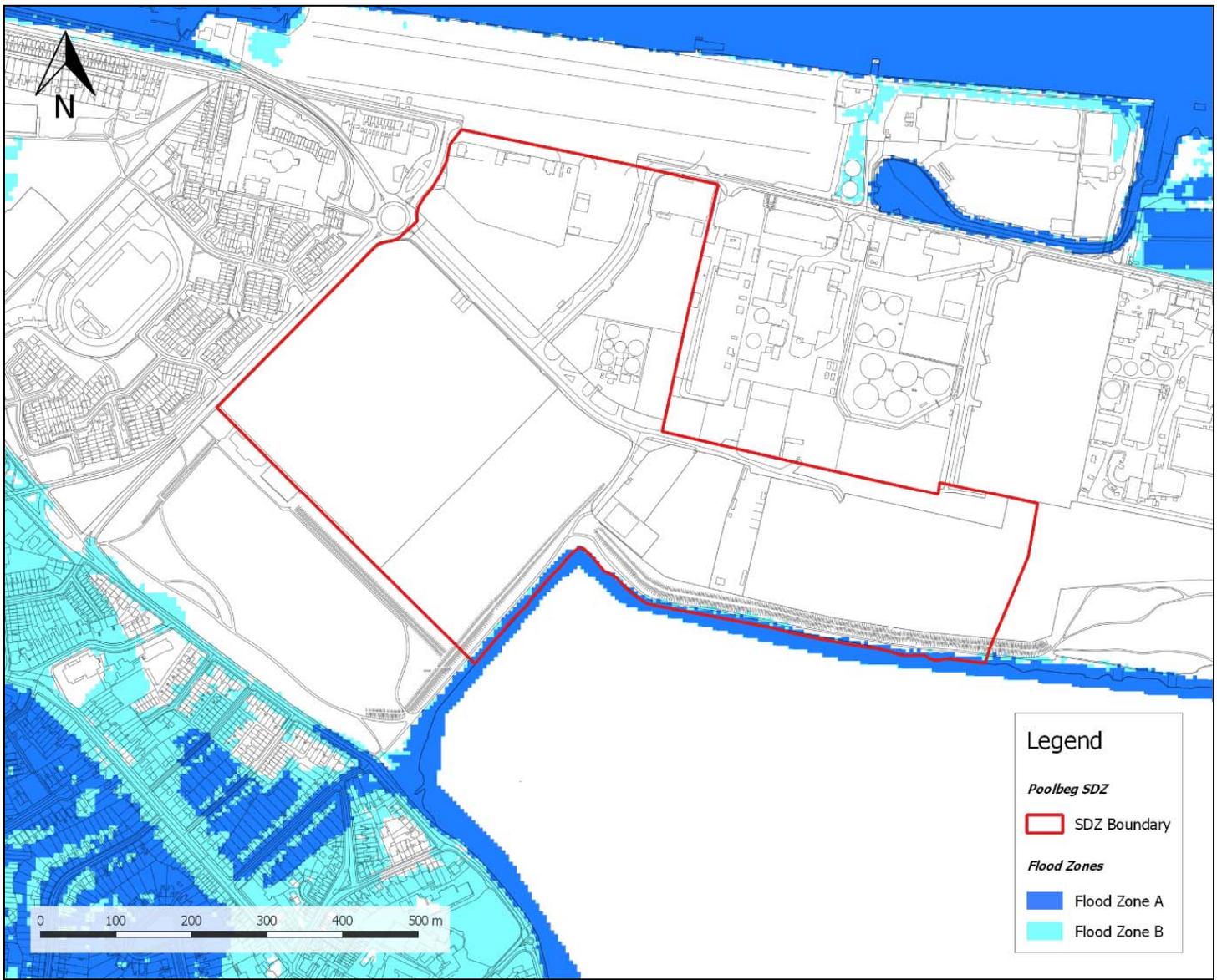


Figure 4.8 Coastal Waterbody WFD Status 2010-2015

Source: EPA (2016)



**Figure 4.9 Areas of Elevated Flood Risk: Flood Risk Zones A and B**  
Source: CAAS (2016)

## 4.7 Air and Climatic Factors

### 4.7.1 Climatic Factors

The key issue involving the assessment of the effects of implementing the Draft Planning Scheme on climatic factors relates to greenhouse gas emissions arising from transport. Interactions are also present with flooding (see Section 4.6.6) and the Dublin District Heating System (see Section 4.8.3).

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

Ireland's emissions profile has changed considerably since 1990, with the contribution from transport more than doubling and the share from agriculture reducing since 1998. Travel is a source of:

1. Noise;
2. Air emissions; and
3. Energy use (42.2% of Total Final Energy Consumption in Ireland in 2015 was taken up by transport, the largest take up of any sector)<sup>18</sup>.

For 2015, total national greenhouse gas emissions are estimated to be 3.7% higher than emissions in 2014. This follows the 0.3% decrease in emissions reported for 2014, most likely attributable to a mild winter in that year. Emission reductions have been recorded in 8 of the last 10 years, however this has largely been as a result of reduced economic activity. There is now strong evidence that emissions are once again increasing in line with economic and employment growth, particularly in the Transport sector. Greenhouse gas emissions from the Transport sector increased by 4.2% in 2015. This is the third successive year of increases in transport emission. Greenhouse gas emissions in 1990 and 2015 by sector show a more than doubling of the proportion of emissions from the Transport sector, from 9.2% in 1990 to 19.8% in 2015<sup>19</sup>.

Between 2008 and 2011, Ireland's greenhouse gas emissions decreased across all sectors due to the effects of the economic downturn with emissions falling by 15.2% between 2008 and 2011. However, 2012 saw emissions rise by 1.2% when compared with 2011<sup>20</sup>.

The EPA 2015 publication *Ireland's Greenhouse Gas Emission Projections 2014-2035*, identifies that:

- Under the 'worst case' scenario, Ireland is projected to cumulatively exceed its obligations by 4 Mt of CO<sub>2</sub>eq over the period 2013-2020.
- Under the 'best case' scenario, Ireland is projected to cumulatively meet its compliance obligations over the 2013-2020 period and meet its 2020 target. This takes into account the overachievement of the annual limits in the period 2013- 2017 which is banked and used in the years 2018-2020. The report identifies that achieving the outlook under the 'best case' scenario will require focus and effort which includes meeting renewable targets for transport and heat as well as energy efficiency targets.
- Transport emissions are projected to show strong growth over the period to 2020 with a 13%-19% increase on current levels depending on the level of policy implementation. Relative to 2005, transport emissions are projected to remain the same or, at best, decrease by 4% by 2020.

Maximising sustainable mobility will help Ireland meet its emission target for greenhouse gases under the 2020 EU Effort Sharing target which commits Ireland to reducing emissions from those sectors that are not covered by the Emissions Trading Scheme (e.g. transport, agriculture, residential) to 20% below 2005 levels. Subsequently, by 2030, Ireland is required to reduce its carbon emissions by up to 30% compared to 2005 levels.

Land-use planning contributes to the number and the extent of which journeys occur. By addressing journey time through land use planning and providing more sustainable modes and levels of mobility (as is provided for by the Draft Planning Scheme), noise and other emissions to air and energy use can be

<sup>18</sup> Sustainable Energy Ireland (2016) *Energy in Ireland 1990 – 2015*

<sup>19</sup> EPA (2016) *Ireland's Provisional Greenhouse Gas Emissions in 2015*

<sup>20</sup> EPA (2013) *Ireland's Greenhouse Gas Emissions in 2012*

minimised. Furthermore, by concentrating populations, greenfield development - and its associated impacts - can be minimised and the cost of service provision can be reduced.

Provisions in relation to green infrastructure have been integrated into the Planning Scheme. Green infrastructure has the potential to achieve objectives and synergies with regard to the following:

- Facilitation of sustainable mobility;
- Provision of open space amenities;
- Sustainable management of water;
- Protection and management of biodiversity; and
- Protection of cultural heritage.

#### 4.7.2 Ambient Air Quality

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

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

The CAFE Directive:

- Sets new air quality objectives for PM<sub>2.5</sub> (fine particles) including the limit value and exposure related objectives;
- Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values; and
- Allows the possibility for time extensions of three years (PM<sub>10</sub>) or up to five years (NO<sub>2</sub>, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.

The fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

The CAFE Directive was transposed into Irish legislation by the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011). It replaces the Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002), the Ozone in Ambient Air Regulations 2004 (S.I. No. 53 of 2004) and S.I. No. 33 of 1999.

The fourth Daughter Directive was transposed into Irish legislation by the Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons in Ambient Air Regulations 2009 (S.I. No. 58 of 2009).

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: Other cities and large towns comprising Limerick, Galway, Waterford, Drogheda, Dundalk, Bray, Navan, Ennis, Tralee, Kilkenny, Carlow, Naas, Sligo, Newbridge, Mullingar, Wexford, Letterkenny, Athlone, Celbridge, Clonmel, Balbriggan, Greystones, Leixlip and Portlaoise; and
- 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 SDZ is located within Zone A. The current air quality within this zone is identified by the EPA as being of good quality<sup>21</sup>.

Key issues/challenges identified in the EPA's (2016) *Air Quality in Ireland 2015* report include:

- The World Health Organisation (WHO) has intimated that there is no safe limit for air pollution.

<sup>21</sup> The index was calculated at 13:31, 19 January 2017 (<http://www.epa.ie/air/quality/>)

- In general, air quality in Ireland is good and compares favourably with other EU member states, largely as a result of the relative absence of large cities, weather and access to predominantly clean air masses from the south west. However this status is both weather dependent and a comparison, relative to European neighbours many of whom are in exceedance of EU limit values for pollutants such as particulate matter, ozone and nitrogen dioxide.
- As the improvement in the Irish economy continues, Ireland will face challenges to comply with EU legislation for pollutants emitted from car exhausts.
- Economic activity will likely be mirrored by increases in NOX emissions, particularly in urban areas.
- City centre and urban monitoring sites in Ireland are approaching EU limit values for NO<sub>2</sub>, and it is probable that Ireland will see limit value exceedances in the near future unless mitigation steps are taken.

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

### 4.7.3 Odour

The Ringsend Wastewater Treatment Works was completed in 2003 and contributes towards cleaner water in Dublin Bay.

Having completed short-term odour abatement measures in 2007, significant works were undertaken in 2008. These included permanent covering of the primary tanks with provision of associated odour control units and installation of new high capacity combustion chambers to all three dryers. These works were completed in November 2008 after which there was a drop off in complaints.

In 2009, significant work was carried out on the odour abatement equipment leading to a raised level of complaints in April and June of that year. This work has resulted in improved effectiveness and increased capacity of the

odour abatement system. The plant operators provide a twenty four hour maintenance service and any breakdowns in odour equipment are addressed as quickly as possible.

Dublin City Council has formalised an Odour Monitoring Programme that encompasses continuous on-site monitoring and, on foot of complaints, speedy investigation of sources of odour.

### 4.7.4 Noise

Dublin City Council is actively engaged in the strategic management of noise in compliance with requirements under the Environmental Noise Directive.

The northern boundary of the site adjoins land-uses that include power generation, waste treatment, fuel storage and handling - as well as risks arising from the movement of containerised and loose material in HGV. Risks include emissions to air - licenced, accidental or occasional as well as exposure to both blast hazard and compounds of combustion (smoke) arising from accidents at these industrial and infrastructural sites. Noise emissions are an additional factor arising from these activities that needs to be taken into account.

All of these issues are governed by quantitative regulations that set down acceptable/permisable levels of public exposure and especially exposure by areas where people sleep, including houses and hotels.

From the outset specific consideration of these issues has informed the allocation of land-uses and the height and configuration of buildings, either to avoid or minimise exposure or to create massing that will reduce exposure of vulnerable land-uses.

### 4.7.5 Existing Problems

Legislative objectives governing air and climatic factors within SDZ Planning scheme area were not identified as being conflicted with.

## 4.8 Material Assets<sup>22</sup>

### 4.8.1 Water Services

#### 4.8.1.1 Irish Water

From January 2014, Irish Water became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal of wastewater.

#### 4.8.1.2 Wastewater

The SDZ Planning Scheme area will be served by the wastewater treatment plant at Ringsend, which caters for the Dublin Region.

The EPA's (2016) "Urban Waste Water Treatment in 2015" report identifies that the Ringsend plant is currently operating over design capacity and failed Nitrogen and Phosphorus compliance requirements in 2015.

The expansion and upgrading of the Ringsend Wastewater Treatment Plant is an urgent priority for Irish Water. It is intended to upgrade and expand the treatment works to a capacity of c. 2.1 million PE from 1.64 million PE. The Greater Dublin Strategic Drainage Study has identified the need for the Greater Dublin Regional Wastewater Treatment Plant, Marine Outfall and orbital sewer in North County Dublin to protect the environment.

#### 4.8.1.3 Drinking Water

The Water Services Strategic Plan (2015) sets out the strategic objectives for the delivery of water services over the next 25 years up to 2040. The supply of a safe and reliable water supply is essential to public health.

Dublin City Council will work closely and support Irish Water to provide and maintain an adequate public water supply to the SDZ and surrounding areas and facilitate connections. Poolbeg and the surrounding area is currently supplied by the Stillorgan Water Supply Scheme.

The EPA publishes a Remedial Action List which identifies water supplies which are not in compliance with parameters specified in the European Communities (Drinking Water)

Regulations (No. 2) 2007. The most recent EPA Remedial Action List (Q3 of 2016) does not include the Stillorgan Water Supply Scheme.

The Dublin region is facing a number of infrastructural challenges, particularly in the supply and demand for high-quality drinking water and for wastewater treatment to provide for future population growth, addressing deterioration of the existing networks, including sub-standard drainage infrastructure, and encouraging water conservation.

Irish Water published the Project Need Report in early March 2015 which sets out the pressing need for a new water supply source for the Eastern and Midlands Region of the country. Projected demand for water in Dublin will increase significantly by 2050, far exceeding the capacity of the existing sources there. Climate change presents a risk to water supply. There is a requirement to diversify water sources serving the Dublin water supply area with 84% of water treatment capacity dependent on the River Liffey alone. The Eastern and Midlands Region Project will identify a new water supply source to avoid shortages of drinking water in the future.

### 4.8.2 Waste Management

Waste management is an integral requirement essential in the promotion of sustainable development, enhancing good public health and the protection of the environment.

A review of the Waste Plan for the Dublin Region 2005-2010 highlighted a number of key achievements as set out below:

- Waste generation per capita reduced from 410kg to 330kg
- Household Recycling Rate increased from 27% to 44%
- Kerbside organic waste collected from households increased from 2,382 tonnes to 36,223 tonnes
- Construction of a regional Materials Recycling Facility (MRF) to process 100,000 tonnes of dry recyclables per annum, and Licensing was secured for a Waste to Energy Facility on the Poolbeg Peninsula.

The Greater Dublin Waste Management Plan provides a framework for minimising waste, encouraging recycling and ensuring the

<sup>22</sup> Much of the text in this section is taken from the Dublin City Council Development Plan (2016-2022)

avoidance of environmental pollution. The Planning Scheme includes the policy of diversion from landfill in accordance with targets set out in the European Union Landfill Directive.

Although there are no recycling facilities within the SDZ, a number of facilities are in close proximity. The Ringsend Recycling Centre is located just outside the area and allows domestic users to recycle a wide range of materials. There are also a number of bottle banks in close proximity to the SDZ, namely at East Wall Road and in Ballsbridge. A small local bottle bank to serve the new residential community will be required. The service area associated with the commercial uses proposed on site may be a suitable location for this, preferably as a below ground installation.

### 4.8.3 Dublin District Heating System

The Dublin District Heating System (DDHS) is currently being progressed by Dublin City Council, initially focussing on the Dublin Docklands SDZ and the Poolbeg Peninsula. The Dublin Waste to Energy Plant and other industrial facilities have been identified as potential and initial sources of waste heat within the local docklands area.

Elements of the DDHS have been installed within the north docklands area, and within the new Liffey Tunnel which facilitates the roll out of district heating network both north and south of the river Liffey. During the lifetime of the Planning Scheme, the Council will work to ensure the successful implementation of this critically important piece of infrastructure which will make Dublin City a more sustainable and energy efficient city, less dependent on imported and fossil fuels, more competitive and environmentally clean, thus attracting foreign direct investment, and aiming to be an effective leader in managing climate change.

### 4.8.4 Existing Problems

There are a number of challenges with respect to the provision of water services infrastructure which are described under Section 4.8.1 above.

As detailed in the Planning Scheme, in order to achieve the vision of the SDZ Planning Scheme and the key principles, delivery of infrastructural services is essential and this will

be achieved through the strategy of, inter alia, investment in physical infrastructure which is required to ensure that there is adequate capacity to accommodate the quantum of development envisaged in the Planning Scheme.

## 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 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.

The SDZ is located on reclaimed ground and has potential for the survival of buried archaeological features and structures including jetties, piers, fish traps, wrecks and other features of archaeological potential. The Wreck Inventory of Ireland Database lists numerous wrecks in the vicinity of the SDZ,

which are subject to statutory protection under Section 3 of the 1987 National Monuments (amendment) Act. The Poolbeg West SDZ is located adjacent to a zone of archaeological potential established around the South Bull Wall, which is subject to statutory protection in the Record of Monuments and Places (Recorded Monument DU019-029 and DU018-066), established under section 12 of the National Monuments (Amendment) Act 1994.

#### 4.9.2.2 Record of Monuments and Places

The National Monument Acts 1930-2004 are the primary legislative framework for the protection of archaeological heritage in Ireland. Through the definition of monuments, historic monuments, and national monuments a wide range of structures and features fall under the remit of these Acts.

The Record of Monuments and Places (RMP) was established under Section 12 of the National Monuments (Amendment) Act 1994 and structures, features, objects or sites listed in this Record are known as Recorded Monuments. The term Monument refers to any artificial or partly artificial building or structure, that has been carved, sculptured or worked upon or which appears to have been purposely put or arranged in position. It also includes any, or part of any prehistoric or ancient tomb, grave or burial deposit, or ritual, industrial or habitation site. Monuments that predate 1700 AD are automatically accorded the title Historic Monument. A 'National Monument' is defined in the National Monuments Acts (1930-2004) as a monument or the remains of a monument, the preservation of which is of national importance by reason of the historical, archaeological, traditional, artistic or architectural interest.

As well as extending protection to all known sites, now identified as Recorded Monuments, the National Monuments Acts 1930-2004 extends protection to all previously unknown archaeological items and sites that are uncovered through ground disturbance or the accidental discovery of sites located underwater. Where necessary, the Minister with responsibility for heritage will issue preservation orders to ensure protection is afforded to sites believed to be under threat.

The spatial distribution of archaeological monuments and associated Record of Monuments and Places (RMP)/Sites and

Monuments Record (SMR) Zones of Notifications<sup>23</sup> is shown on Figure 4.10. There are no archaeological monuments identified within the SDZ however there are parts of Archaeological Zones of Notifications established around the South Bull Wall along the northern boundary of the site.

#### 4.9.2.3 Underwater Archaeology <sup>24</sup>

The Underwater Archaeology Unit (UAU) was established within the National Monuments Service to manage and protect Ireland's underwater cultural heritage, including the quantification of the underwater resource and assessing development impacts in order to manage and protect this aspect of Ireland's heritage. The Shipwreck Inventory is principally a desktop survey with information gathered from a broad range of cartographic, archaeological and historical sources, both documentary and pictorial. An inventory of wrecks covering the coastal waters off County Dublin was published in 2008. Wrecks over 100 years old and archaeological objects found underwater are protected under the National Monuments (Amendment) Acts 1987 and 1994. Significant wrecks less than 100 years old can be designated by Underwater Heritage Order (UHO) on account of their historical, archaeological or artistic importance. UHOs can also be used to designate areas of seabed or land covered by water to more clearly define and protect wreck sites and archaeological objects. Under the legislation all diving on known protected wreck sites or with the intention of searching for underwater cultural heritage is subject to licensing requirements.

There are a number of historically recorded shipwrecking events located in vicinity of the Dublin Bay area. While the potential wrecksites will not be directly impacted by the Planning Scheme, the City Development Plan requires that proposed developments that may have potential to impact on riverine, inter-tidal and sub-tidal environments shall be subject to an underwater archaeological assessment in advance of works.

<sup>23</sup> These relate to the giving of notice when works are being proposed in these areas.

<sup>24</sup> DCC (2013) *North Lotts and Grand Canal Dock Planning Scheme*

## 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

Part IV of the Planning and Development Act requires every development plan to include a record of protected structures (RPS). A 'protected structure' is a structure or a specific feature of the structure as may be specified that a Planning Authority considers to be of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view.

The placing of a structure on the RPS seeks to ensure that the character and interest of the structure is maintained and any changes or alterations to it are carried out in such a way as to retain and enhance that character and interest. The inclusion of a structure in the RPS confers certain responsibilities upon the owner of the structure and requires that planning permission be sought for any changes or alterations to the structure. The definition of a 'structure' or 'a specified part of a structure' for the purpose of the RPS includes "the interior of the structure; the land lying within the curtilage of the structure; any other structures lying within the curtilage of that structure and their interiors; and all fixtures and features which form part of the interior or exterior of the structure". From the date of notification of an intention to include a structure in the RPS, the owner has a duty to protect that structure from endangerment.

There are no entries to the Record of Protected Structures located within the SDZ however there are a number of entries located to the north of the SDZ along the Pigeon House Road including various houses, sea walls, remnants of Pigeon House Fort, surviving parts of the former St. Catherine's Hospital, the former Pigeon House Hotel and the former Pigeon House power station. The former Pigeon House power station contributes towards the industrial heritage of

the Poolbeg area – this coal-fired power station was opened in 1903 and was the country's earliest major power production facility and the world's first three-phase generating station.

### 4.9.3.3 Architectural Conservation Areas

In accordance with Section 81 of the Planning and Development Act, a Development Plan is required to include an objective to preserve the character of a place, area, group of structures or townscape, taking account of building lines and heights, that:

- (a) is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or
- (b) contributes to the appreciation of protected structures,

if the Planning Authority is of the opinion that its inclusion is necessary for the preservation of the character of the place, area, group of structures or townscape concerned and any such place, area, group of structures or townscape shall be known as an "Architectural Conservation Area" (ACA).

There are presently 21 Architectural Conservation Areas designated within Dublin City. Sandymount and Environs ACA is located in vicinity of the SDZ Planning Scheme (as shown in the map on Figure 4.10). There is a significant stock of nineteenth and twentieth century structures in Sandymount village, a number of which are protected structures. Sandymount village is primarily a nineteenth century development with houses shown laid out around Sandymount Green on the first edition Ordnance Survey map<sup>25</sup>. The Sandymount and Environs ACA includes a number of entries to the Record of Protected Structures.

## 4.9.4 Existing Problems

No existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

<sup>25</sup> Source: Dublin City Council (2016) Dublin City Development Plan 2016-2022

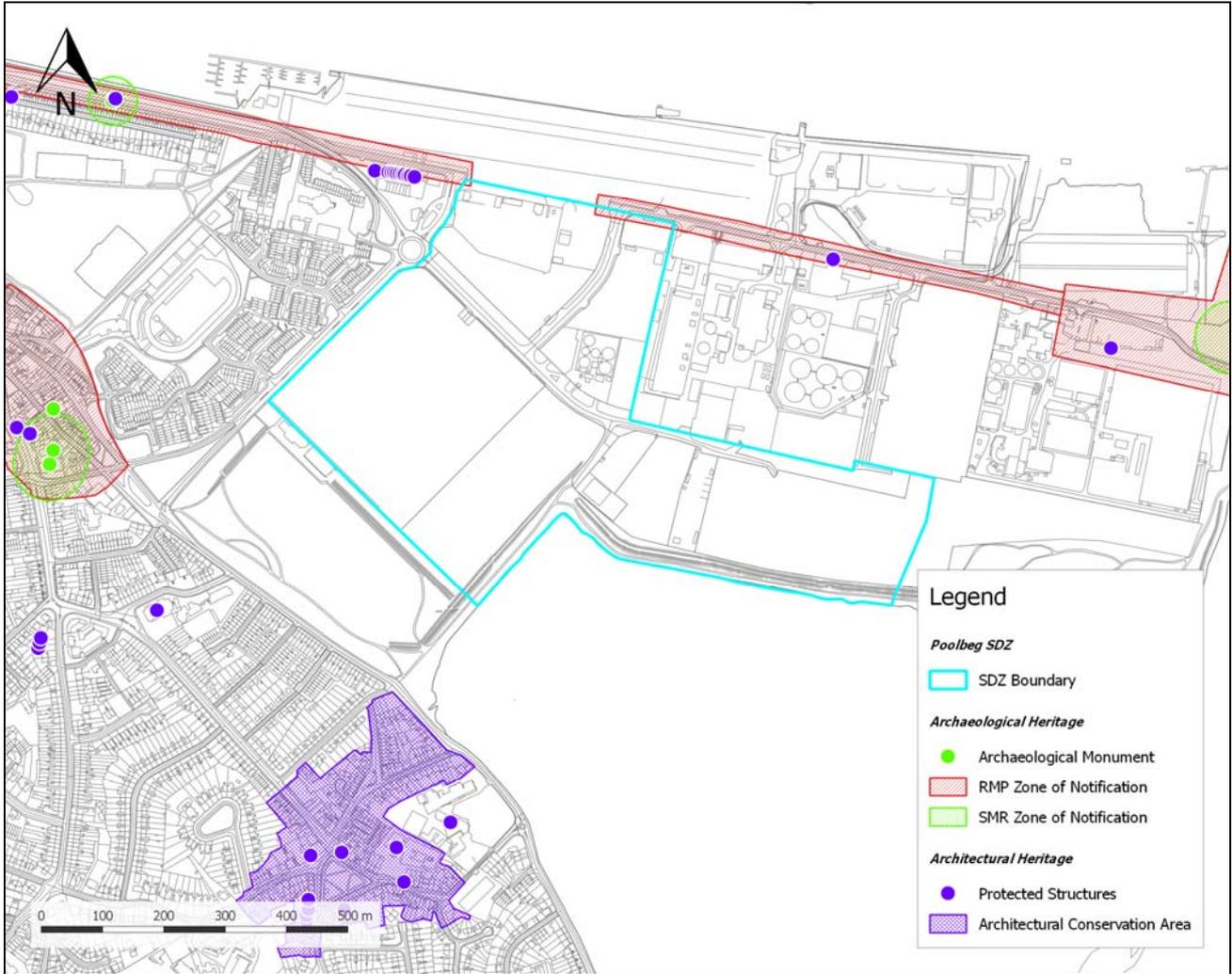


Figure 4.10 Cultural Heritage (including architectural and archaeological heritage)

## **4.10 Landscape**

As detailed under Section 4.4.1, the southern edge of the SDZ site accommodates a heavily-used walk that leads to the Irishtown Nature Park. It is one of the more heavily used unstructured recreational resources in this part of the City. At low-tide Sandymount Strand is also a popular and much-used amenity for walking and bird-watching.

The Clanna Gael Fontenoy GAA Club and associated parkland immediately adjoins the south-western boundary of the site. The playing fields and parklands are heavily used. These amenities are highly valued by local communities and are closely monitored for anything that could adversely affect access to or use of these amenities – during the use or construction phases.

Traffic and container areas create an impression of low visual amenity in the north-eastern and northern boundaries of the SDZ. These are locally perceived to be heavily trafficked and dangerous for pedestrians. The container handling areas that adjoin these roads further detract from any sense of this area having a quality environment.

The Dublin City Council Development Plan 2016-2022 recognises the unique landscape qualities of the Poolbeg Peninsula, rivers and bay area and makes provision to protect and enhance them, and to retain the existing open character and nature of the coastal views from Irishtown Nature Park.

The Planning Scheme contributes towards the protection of the existing amenity in the areas as well as recognising the various views obtainable from the SDZ including those towards the coast, Sandymount Strand, Dún Laoghaire and the Dublin Mountains.

### **4.10.1 Existing Environmental Problems**

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

## Section 5 Strategic Environmental Objectives

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 Draft 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.

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

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

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

**Table 5.1 Strategic Environmental Objectives, Indicators and Targets**

<b>Environmental Component</b>	<b>Strategic Environmental Objectives</b>	<b>Selected Indicator(s)</b>	<b>Selected Target(s)</b>
<b>Biodiversity, Flora and Fauna</b>	B1: To ensure compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species <sup>26</sup>	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Planning Scheme <sup>27</sup>
	B2: 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 (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Planning Scheme	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the Planning Scheme
	B3: To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of listed species	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Planning Scheme  B3ii: Number of significant impacts on the protection of listed species	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Planning Scheme  B3ii: No significant impacts on the protection of listed species
<b>Population and Human Health</b>	PHH1: To protect populations and human health from exposure to incompatible landuses such as those arising from heavy vehicle traffic, emissions or contaminated soils	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Planning Scheme, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Planning Scheme
	PHH2 (and L1): To protect use of and access to amenities including parklands, playing fields and shore-side walks	PHH2 (and L1): Disruption to use of and access to amenities including parklands, playing fields and shore-side walks	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands, playing fields and shore-side walks
<b>Soil</b>	S1: To maximise the re-use of brownfield land thereby avoiding the need to develop greenfield land elsewhere	S1: Area of brownfield land available for re-use	S1: To maximise the re-use of available brownfield land
<b>Water</b>	W1: To maintain and improve, where possible, the quality and status of surface waters	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>26</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>27</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/project to proceed; and
- (c) adequate compensatory measures in place.

<b>Environmental Component</b>	<b>Strategic Environmental Objectives</b>	<b>Selected Indicator(s)</b>	<b>Selected Target(s)</b>
	W2: To prevent pollution and contamination of ground water	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
	W3: To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)	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>
<b>Air and Climatic Factors</b>	C1: To contribute towards sustainable mobility and help to facilitate the achievement of higher level targets relating to air pollution greenhouse gas emission targets	C1: Percentage of resident and employment populations travelling to work, school or college by public transport or non-mechanical means	C1: Maximise the percentage of the resident and employment populations travelling to work, school or college by public transport or non-mechanical means
<b>Material Assets</b>	M1: To serve new development with adequate and appropriate waste water treatment	M1: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Planning Scheme	M1: 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
	M2: To serve new development with adequate drinking water that is both wholesome and clean	M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Planning Scheme	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Planning Scheme
	M3: To reduce waste volumes, minimise waste to landfill and increase recycling and reuse	M3: Total collected and brought household waste	M3: Minimise increases in and, where possible, reduce household waste generation
<b>Cultural Heritage</b>	CH1: To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context	CH1: Percentage of entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and the context of the above within the surrounding landscape where relevant) - protected from significant adverse effects arising from new development granted permission under the Planning Scheme	CH1: Protect entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and their context of the above within the surrounding landscape where relevant) from significant adverse effects arising from new development granted permission under the Planning Scheme
	CH2: To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context	CH2: Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Planning Scheme	CH2: Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Planning Scheme
<b>Landscape</b>	L1 (and PHH2): To protect use of and access to amenities including parklands, playing fields and shore-side walks	L1 (and PHH2): Disruption to use of and access to amenities including parklands, playing fields and shore-side walks	L1 (and PHH2): To avoid and minimise disruption to use of and access to amenities including parklands, playing fields and shore-side walks

## **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 Poolbeg West Strategic Development Zone (SDZ).

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 and planning legislation – 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.

### **6.2 Need for a Scheme**

First of all, it was examined whether there was a need for a Planning Scheme. It was determined by Dublin City Council that there was a need for a Scheme as S.I. No. 279 of 2016 provides for the designation of the SDZ and Poolbeg and designates the Council as the development agency.

Therefore a “no scheme” alternative does not apply in this situation.

### **6.3 Alternative Scenarios**

#### **6.3.1 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.

Alternatives are limited by the geographical scope of the Planning Scheme, which relates to the SDZ boundary identified by S.I. No. 279 of 2016 (see Figure 6.1) as well as being limited by higher level environmental protection and management, sustainable development and planning objectives.

Three alternatives were considered for the Planning Scheme. Each of these alternatives has a number of component parts, some of which may be shared by other alternatives. The three alternatives are built around the quantum of development that could take place on the lands as follows:

- Alternative 1: A High Quantum of Development
- Alternative 2: A Medium Quantum of Development
- Alternative 3A: A Low Quantum of Development (mixed uses)
- Alternative 3B: A Low Quantum of Development (100% residential)

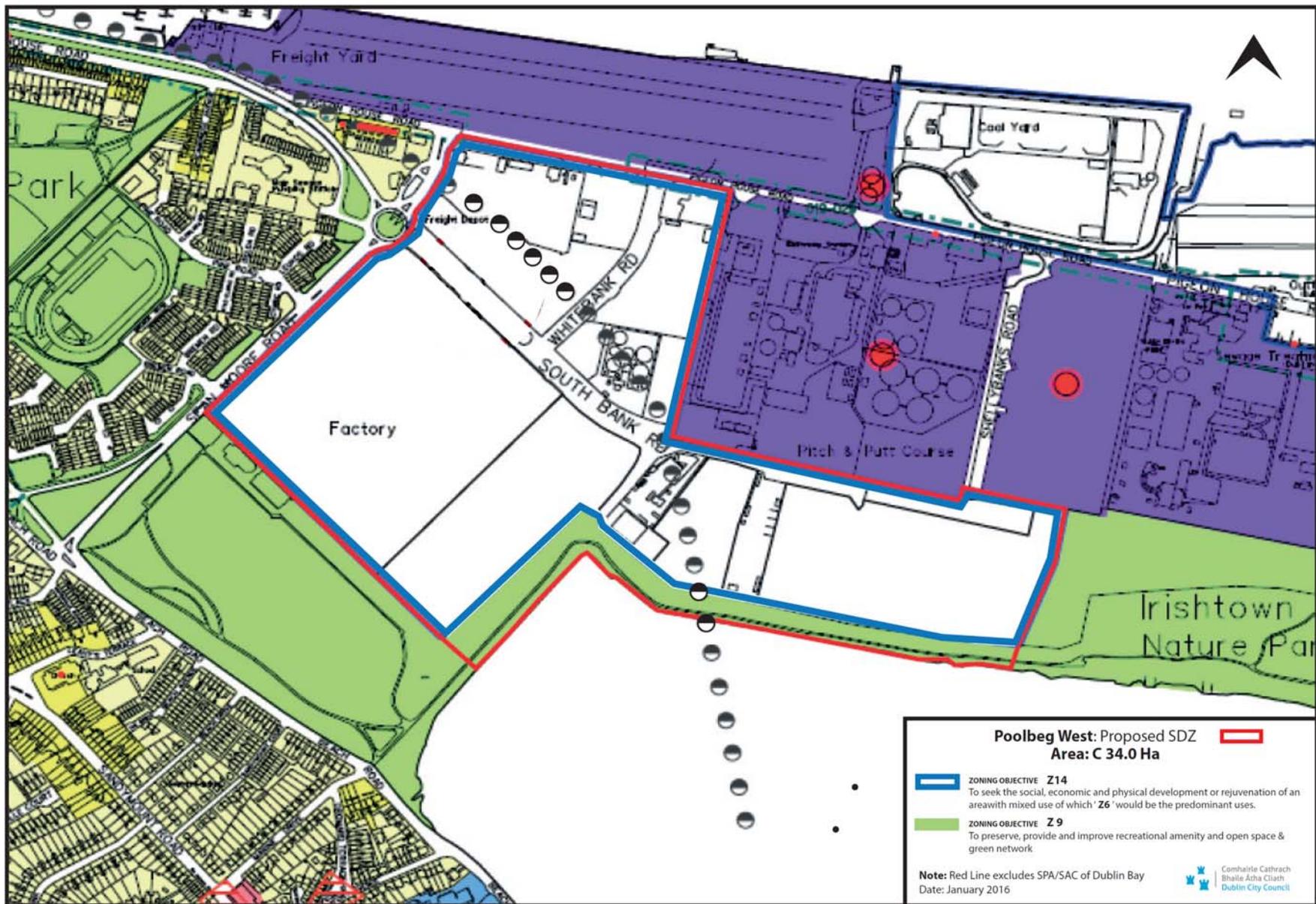


Figure 6.1 Strategic Development Zone Boundary

## **6.4 Description of Alternative Scenarios**

### **6.4.1 Alternative Scenario 1: *A High Quantum of Development***

This alternative maximises the quantum of built development across the site by using the greatest possible surface area and densities for both commercial/employment and residential development, taking into account minimal higher level planning and legislative requirements.

The heights of buildings are maximised on all plots, throughout the SDZ.

No land is provided for community uses additional to those already existing in the vicinity of the site.

Minimal buffers are provided outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure.

Development Plan Standards with respect to Open Space are largely met using lands that are incidental to new commercial/employment and residential blocks.

There is limited space for non-essential linkages through the site or for public transport services, such as cycling.

### **6.4.2 Alternative Scenario 2: *A Medium Quantum of Development***

This alternative provides for a medium quantum of built commercial/employment and residential development across the site, at medium densities.

Heights of buildings provide for a medium use of the site, commensurate with its strategic location. Heights provided for are higher in the north of the site and lower in the south.

Lands are provided for community uses in the west of the site, adjacent to existing community uses to the southwest of the SDZ.

Buffers are provided outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure.

Development Plan Standards with respect to Open Space are met and exceeded with a network of multiple linear parks linking together open space to the south of the site, a village green and square in the centre of the site and the shore to the east of the site.

Infiltration of a rapid bus loop into the site is provided for. The various linear parks are utilised to provide linkages for walking and cycling while there is sufficient space for public transport services, such as cycling.

### **6.4.3 Alternative Scenario 3A: *A Low Quantum of Development (mixed uses)***

This alternative provides for a low quantum of built development across the site at lower densities. There is a mix of commercial/employment and residential development.

Heights of buildings are consistent with those of surrounding development.

Lands are provided for community uses in the west of the site, adjacent to existing community uses to the southwest of the SDZ.

More than adequate buffers are provided outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure.

Development Plan Standards with respect to Open Space are met and exceeded with a network of multiple linear parks linking together various new pocket parks, open space to the south of the site, a village green and square in the centre of the site and the shore to the east of the site. The amount of Open Space provided for by this alternative is significantly higher than by the other alternatives.

Infiltration of a rapid bus loop into the site is provided for. The various linear parks are utilised to provide linkages for walking and cycling while there is sufficient space for public transport services, such as cycling.

#### **6.4.4 Alternative Scenario 3B: *A Low Quantum of Development (100% residential uses)***

This alternative is as Alternative 3A but with all built development being residential.

## Section 7 Evaluation of Alternative Scenarios

### 7.1 Introduction

This section provides a comparative evaluation of the environmental effects of implementing the alternatives. This determination sought to understand whether each alternative was likely to improve, conflict with or have a neutral interaction with environmental components.

### 7.2 Methodology

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

The alternatives are evaluated using compatibility criteria (see Table 7.1 below) in order to determine how they would be likely to affect the status of the SEOs. The SEOs and the alternatives are arrayed against each other to identify which interactions - if any - would cause effects on specific components of the environment. Where the appraisal identifies a likely conflict with the status of an SEO the relevant SEO code is entered into the conflict column - e.g. B1 which stands for the SEO likely to be affected - in this instance 'to ensure compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species<sup>28</sup>'.

The interactions identified are reflective of likely significant environmental effects<sup>29</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. The extent of positive effects which would be likely to occur varies and there are three 'likely to improve columns' (see Table 7.2).
2. 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 could be mitigated. The extent to which effects could be mitigated varies and there are two 'likely to be mitigated columns' (see Table 7.2).
3. Interactions that would probably conflict with the status of an SEO and would be unlikely to be fully mitigated would be likely to result in a significant negative effect on the environmental component to which the SEO relates.

The degree to which effects can be determined is limited as the Scheme will be implemented through the lower tier environmental assessments and decision making of local authorities. Nonetheless a comparative evaluation of the various alternatives can be provided.

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<sup>28</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>29</sup> These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Table 7.1 Strategic Environmental Objectives

SEO Code	SEO
<b>B1</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species <sup>30</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 (designated or not) - 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 designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of listed species
<b>PHH1</b>	To protect populations and human health from exposure to incompatible landuses such as those arising from heavy vehicle traffic, emissions or contaminated soils
<b>PHH2 (and L1)</b>	To protect use of and access to amenities including parklands, playing fields and shore-side walks
<b>S1</b>	To maximise the re-use of brownfield land thereby avoiding the need to develop greenfield land elsewhere
<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>C1</b>	To contribute towards sustainable mobility and help to facilitate the achievement of higher level targets relating to air pollution greenhouse gas emission targets
<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>M3</b>	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse
<b>CH1</b>	To protect archaeological heritage including scheduled entries to the Record of Monuments and Places and/or their context
<b>CH2</b>	To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context
<b>L1 (and PHH2)</b>	To protect use of and access to amenities including parklands, playing fields and shore-side walks

Table 7.2 Criteria for appraising the effect of Alternatives on SEOs

Likely to <b>Improve</b> status of SEOs to the <b>greatest</b> degree	Likely to <b>Improve</b> status of SEOs to a <b>greater</b> degree	Likely to <b>Improve</b> status of SEOs to a <b>lesser</b> degree	Likely to <b>Potentially Conflict</b> with status of SEOs to the <b>least</b> degree  - likely to be mitigated	Likely to <b>Potentially Conflict</b> with status of SEOs to a <b>lesser</b> degree  - likely to be mitigated	<b>Probable Conflict</b> with status of SEOs  - unlikely to be fully mitigated	<b>No significant interaction</b> with status of SEOs
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<sup>30</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.

## 7.3 Cumulative Effects

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

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

- Potential *intra-Plan* cumulative effects - these arise from the interactions between different types of potential environmental effects resulting from a plan, programme, etc. Where there are elevated levels of environmental sensitivities, future development could result in environmental conflicts and lead to a deterioration in environmental integrity. The interrelationships between environmental components that help determine these potential effects are identified on Table 8.3 in Section 8 e.g. interrelationships between:
  - Human health and soil/water quality/air quality/flood risk;
  - Landscape/amenities and population; and
  - Ecology and soil/water quality.
- Potential *inter-Plan* cumulative effects - these arise when the effects of the implementation of one plan occur in combination with those of other plans, programmes, developments, etc.

Effects that may arise as a result of implementing the Planning Scheme have been mitigated to the extent that the only residual adverse effects likely to occur as a result of implementation of the Planning Scheme are those which are identified under Table 8.4.

With regard to potential *inter-Plan* cumulative environmental effects, these occur as a result of the combination of: potential environmental effects which are identified by the assessment; and the effects arising from other legislation, plans, programmes or developments arising.

In considering the relationship with legislation and other plans and programmes it is important to note that the Planning Scheme will be implemented within areas that have existing plans and programmes (see Sections 2.4, 4 and 5 and Appendix I) for a range of sectors at a range of levels (e.g. National, River Basin District, Regional, County and Local) that are already subject to more specific higher and lower tier SEA and AA.

The assessment of the likely *inter-Plan* cumulative environmental effects requires knowledge of the likely effects of all plans/developments under consideration. The assessment is limited in this instance as there has been limited assessment of the likely types of developments provided for by other policies, plans and programmes that could occur in combination with the implementation of the Planning Scheme. Where they exist, the SEA recognises the existence of other environmental assessments with a view to avoid duplication of assessment, in compliance with the SEA Directive.

The SEA undertaken for the Planning Scheme has taken account of the Council's obligation to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their policies, strategies, plans, programmes, etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Cumulative effects that have been considered include those resulting from the Draft Planning Scheme and (see also Appendix I):

- Other land use Plans (e.g. Dublin City Development Plan 2016-2022);
- Water services, transport and energy infrastructure plans (e.g. the National Transport Authority's Greater Dublin Area Transport Strategy 2016-2035, Irish Water's Water Services Strategic Plan and associated Capital Investment Plan 2014-2016 and Grid25 and associated Implementation Programme) and the Dublin City Local Economic and Community Plan; and
- Environmental protection and management plans (e.g. Eastern River Basin District Management Plan and Eastern CFRAMS Flood Risk Management Plan).

A variety of the issues referred to by the Draft Planning Scheme provisions are City or regional issues which are considered: by the City Development Plan 2016-2022; at Regional Assembly level, in the Regional Planning Guidelines for the Greater Dublin Area 2010-2022; and by planning authorities across the Region. The solutions to these issues are often City or regional solutions which are subject their own consenting procedures. Works arising outside of the SDZ as a partial result of providing for new development within the Planning Scheme area including those arising as a result of the cumulative provision of development in the wider Dublin City and Region would potentially conflict with a number of environmental components, across the wider Dublin City and Region, including: ecology, soil function, the status of water bodies and the landscape. Some of these conflicts would be mitigated by measures which will be integrated into the Draft Planning Scheme while some will be mitigated by measures arising out of separate consent procedures. Examples of such issues include transport projects around the Docklands and Poolbeg Peninsula:

- Sustainable transport initiatives within the Docklands area (Dublin City Development Plan);
- Integrated transport strategy for the entire Docklands area (Dublin City Development Plan);
- Cycling infrastructure along the wider coastline including the Sutton to Sandycove cycleway (National Cycle Framework, National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, land use plans of adjoining planning authorities) and the proposed cycle and walkway along the waterfront around the Docklands, around the Poolbeg Peninsula and linking the City with the South Bull Wall (Dublin City Development Plan);
- Extension of the Luas to Poolbeg (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan);
- Dodder Bridge between Grand Canal Dock and Ringsend (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, Planning Scheme for Grand Canal Dock and North Lotts); and
- The eastern bypass and southern port access route (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, land use plans of adjoining planning authorities).

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

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

## 7.4 Detailed Evaluation of Alternatives

### 7.4.1 Significant Positive Effects Common to all Alternatives

The Poolbeg Peninsula is located near to the established neighbourhoods to the east and south of Ringsend, Sandymount and Irishtown while O'Connell Bridge lies within two kilometres.

The peninsula lies within Dublin Bay – at the estuary of the Dodder and Liffey. The Bay is a nationally significant amenity and an internationally significant wild bird site.

With substantial areas of already developed but vacant land, it has significant potential to contribute towards meeting Dublin's growing development needs.

In addition to being served by walking and cycling infrastructure and bus routes, it is expected that the site will be served in the longer term by the Luas via a stop located on the Séan Moore Road.

The SDZ lands themselves contain relatively low levels of environmental sensitivities and designations, however there are a number of issues arising from adjacent environmental sensitivities and challenges posed by existing uses at the lands that would need to be considered by any new development.

By providing for growth and development in this area, each of the alternative scenarios would be likely to contribute towards a reduced need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced. This would be likely to result in significant positive environmental effects on the following environmental components:

- Biodiversity and flora and fauna
- Population and human health
- Soil (especially soil on greenfield lands)
- Water (status of rivers and groundwater)
- Flood risk
- Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases)
- Material Assets (provision of adequate and appropriate wastewater and drinking water services and waste management)
- Cultural Heritage (architectural and archaeological heritage)
- Amenities

Although significant positive environmental effects would occur under each of the alternatives, the extent to which they would occur varies across each of the alternatives and this is addressed under the evaluation of each of the alternatives below.

### 7.4.2 Potentially Significant Adverse Effects Common to all Alternatives

All of the alternatives provide for the development of the site to some extent. Such development would have the potential to conflict with environmental components – to different degrees. Potentially significant adverse environmental effects arising from this conflict are common to all alternatives and are described on Table 7.3. For the Planning Scheme, these effects will be mitigated by measures that have been integrated into the Planning Scheme.

Although potentially significant adverse environmental effects would occur under each of the alternatives, the extent to which they would occur varies across each of the alternatives and this is addressed under the evaluation of each of the alternatives below.

**Table 7.3 Potentially Significant Adverse Environmental Effects common to all alternatives**

Environmental Component	(Potential) Likely Significant Effect, if unmitigated
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> <li>○ Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna.</li> <li>○ Habitat loss, fragmentation and deterioration, including patch size and edge effects.</li> <li>○ Disturbance and displacement of protected species.</li> </ul>
Population and Human Health	<ul style="list-style-type: none"> <li>○ Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated.</li> <li>○ Interactions if effects upon environmental vectors such as water and air are not mitigated.</li> </ul>
Soils	<ul style="list-style-type: none"> <li>○ Loss of soil function.</li> <li>○ Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term.</li> </ul>
Water	<ul style="list-style-type: none"> <li>○ Adverse impacts upon the status of water bodies arising from changes in quality, flow and/or morphology.</li> <li>○ Interactions with flood risk.</li> </ul>
Material Assets (it is the function of Irish Water to provide for water services needs)	<ul style="list-style-type: none"> <li>○ Failure to provide adequate and appropriate wastewater treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).</li> <li>○ Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity ensures the mitigation of potential conflicts).</li> <li>○ Increases in waste levels.</li> </ul>
Air and Climatic Factors	<ul style="list-style-type: none"> <li>○ Emissions to air including greenhouse gas emissions and other emissions.</li> </ul>
Cultural Heritage	<ul style="list-style-type: none"> <li>○ Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.</li> </ul>
Landscape/Amenities	<ul style="list-style-type: none"> <li>○ Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks.</li> </ul>

### 7.4.3 Alternative Scenario 1: *A High Quantum of Development*

By maximising the quantum of built development across the site, this alternative scenario would be likely to contribute towards a significant reduction in the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced (this would result in significant positive environmental effects that are detailed under Section 7.4.1).

By only providing minimal buffers outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure this alternative would be likely to lead to the greater conflicts with human health and amenities, many of which would be unlikely to be fully mitigated:

- Potential exposure of dwellings/ schools/ hospitals/ nursing homes to industrial hazards of unsuitable/ incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils);
- Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site; and
- Conflicts with ecological resources (habitats) along the southern boundary due to proximity, height and lack of buffering.

The size and height of buildings throughout the site there would further contribute towards loss of amenity, especially in surrounding coastal areas.

The alternative would conflict with sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases), with many of the effects unlikely to be fully

mitigated. This is because: there would be limited space for non-essential linkages through the site or for public transport services, such as cycling; and no community uses would be provided for.

Other potential conflicts (see Section 7.4.2) to be mitigated occur as a result of development of the site which is provided for by this alternative.

#### **7.4.4 Alternative Scenario 2: *A Medium Quantum of Development***

By providing for a medium quantum of mixed use built development across the site, at medium densities, this alternative scenario would be likely to contribute towards a significant reduction in the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced (this would result in significant positive environmental effects that are detailed under Section 7.4.1).

A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and the infiltration of a rapid bus loop into the site is provided for. Efforts to improve sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases) would be further contributed towards by the provision of community uses in the west of the site.

Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:

- Potential exposure of dwellings/ schools/ hospitals/ nursing homes to industrial hazards of unsuitable/ incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils);
- Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site; and
- Conflicts with ecological resources (habitats) along the southern boundary.

The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.

Other potential conflicts (see Section 7.4.2) to be mitigated occur as a result of development of the site which is provided for by this alternative.

#### **7.4.5 Alternative Scenario 3A: *A Low Quantum of Development (mixed uses)***

This alternative would contribute towards a failure to realise the potential of the site for reducing the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced. This is because of the low quantum of built development provided across the site at lower densities.

More greenfield development would be required in more sensitive, undeveloped areas elsewhere in the Dublin region. Such greenfield development has a greater potential to result in higher levels of direct effects as a result of developing semi-natural lands – such effects include loss of ecology (including non-designated ecology and ecological corridors and stepping stones), visual impacts, the sealing of greenfield soils and threats to the status of waters (which has the potential to interact with aquatic ecology and human health). Greenfield development is less likely to facilitate sustainable mobility and greenfield areas further from the City and less well serviced. Greenfield development is also less likely to facilitate the enhancement of cultural (archaeological and architectural) heritage and its context in urban areas.

A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and infiltration of a rapid bus loop into the site is provided for. However, this alternative would conflict with sustainable mobility and associated interactions (energy usage and emissions to air

including noise and greenhouse gases), with many of the effects unlikely to be fully mitigated, as the quantum of development provided for would not realise the full potential of this Dublin City site.

More than adequate buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:

- Potential exposure of dwellings/ schools/ hospitals/ nursing homes to industrial hazards of unsuitable/ incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils);
- Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site; and
- Conflicts with ecological resources (habitats) along the southern boundary.

The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.

Other potential conflicts (see Section 7.4.2) to be mitigated occur as a result of development of the site which is provided for by this alternative.

#### **7.4.6 Alternative Scenario 3B: *A Low Quantum of Development (100% residential uses)***

The evaluation for this alternative scenario would be as is for Alternative 3A except in relation to sustainable mobility. As Alternative 3B provides 100% residential uses, less journeys by sustainable modes of transports would be likely. Therefore this scenario would provide for less improvements in sustainable mobility.

### **7.5 Summary Evaluation against SEOs**

Table 7.4 provides an evaluation of each of the alternative scenarios for the development of the SDZ against the Strategic Environmental Objectives (SEOs).

**Table 7.4 Evaluation of Alternative Scenarios against SEOs**

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	<b>Probable Conflict</b> with status of SEOs - unlikely to be fully mitigated
<b>Alternative Scenario 1</b>  A High Quantum of Development	Direct interactions as a result of providing for development on the site:  <b>C1 S1 M1 M2 M3</b>  Indirect interactions as a result of significantly reducing the need for development elsewhere within the Dublin Region:  <b>B1 B2 B3 PHH1 PHH2 C1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>	Potential conflicts to be mitigated:  <b>B1 B2 B3 CH1 CH2 W1 W2 W3 M1 M2 M3</b>	Conflicts as a result of the high quantum of development:  <b>B2 B3 PHH1 PHH2 C1 L1</b>
<b>Alternative Scenario 2</b>  A Medium Quantum of Development	Direct interactions as a result of integrating environmental considerations into the Plan:  <b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>  Indirect interactions as a result of significantly reducing the need for development elsewhere within the Dublin Region:  <b>B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>	Potential conflicts to be mitigated:  <b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>	
<b>Alternative Scenario 3A</b>  A Low Quantum of Development (mixed uses)	Direct interactions as a result of providing for a low quantity of development on the site:  <b>B1 B2 B3 PHH1 PHH2 S1 C1 CH1 CH2 L1</b>	Potential conflicts to be mitigated:  <b>B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>  Indirect interactions as a result of not significantly reducing the need for development elsewhere within the Dublin Region:  <b>B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>	Conflicts as a result of the low quantum of development:  <b>S1 C1</b>
<b>Alternative Scenario 3B:</b>  A Low Quantum of Development (100% residential uses)	Direct interactions as a result of providing for a low quantity of development on the site (with less journeys by sustainable modes of transports likely):  <b>B1 B2 B3 PHH1 PHH2 S1 C1 CH1 CH2 L1</b>	Potential conflicts to be mitigated:  <b>B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>  Indirect interactions as a result of not significantly reducing the need for development elsewhere within the Dublin Region:  <b>B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>	Conflicts as a result of the low quantum of development:  <b>S1 C1</b>

## **7.6 Selection of an Alternative for the Draft Planning Scheme**

The Alternative Scenario for the development of Poolbeg West which has emerged from the planning process is Scenario 2 – this Scenario contributes towards the protection and management of the environment and conforms with high level planning objectives.

Alternative Scenario 2 was developed by the Planning Team 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 relating to the site's potential.

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.

## Section 8 Evaluation of Draft Planning Scheme Provisions

### 8.1 Methodology

This section evaluates the detailed provisions of the Draft Planning Scheme provisions. 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 in Section 5 and reproduced overleaf are also used.

The provisions of the Draft 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 Draft 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 the SEO likely to be affected - in this instance 'to ensure compliance with the Habitats Directive with regard to the protection of European Sites and Annexed habitats and species'<sup>31</sup>.

The interactions identified are reflective of likely significant environmental effects<sup>32</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 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 Draft Planning Scheme – these interactions are termed 'mitigated conflicts'.
3. 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.

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.

Mitigation measures to prevent or reduce significant adverse effects posed by the Draft Planning Scheme are identified in Section 9 (the Council have integrated recommendations arising from the SEA and AA processes into the Draft Planning Scheme - see Section 9). Both the Planning and the assessment teams contributed towards the mitigation which was developed over multiple iterations and reviews and was informed by, inter alia, various communications through the SEA, AA and SFRA processes.

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

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<sup>31</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>32</sup> These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

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

Likely to <b>Improve</b> status of SEOs	<b>Mitigated Conflicts</b>	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
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**Table 8.2 Strategic Environmental Objectives<sup>33</sup>**

SEO Code	SEO
<b>B1</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species <sup>34</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 (designated or not) - 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 designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of listed species
<b>PHH1</b>	To protect populations and human health from exposure to incompatible landuses such as those arising from heavy vehicle traffic, emissions or contaminated soils
<b>PHH2 (and L1)</b>	To protect use of and access to amenities including parklands, playing fields and shore-side walks
<b>S1</b>	To maximise the re-use of brownfield land thereby avoiding the need to develop greenfield land elsewhere
<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>C1</b>	To contribute towards sustainable mobility and help to facilitate the achievement of higher level targets relating to air pollution greenhouse gas emission targets
<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>M3</b>	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse
<b>CH1</b>	To protect archaeological heritage including scheduled entries to the Record of Monuments and Places and/or their context
<b>CH2</b>	To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context
<b>L1 (and PHH2)</b>	To protect use of and access to amenities including parklands, playing fields and shore-side walks

<sup>33</sup> See Section 5 for a description of Strategic Environmental Objectives.

<sup>34</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.

## 8.2 Associated Assessments

Appropriate Assessment (AA) Screening and a Strategic Flood Risk Assessment (SFRA) have both been undertaken alongside the Draft Planning Scheme.

The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DECLG, 2009).

The AA concluded that the Planning Scheme will not affect the integrity of the Natura 2000 network of designated sites<sup>35</sup>.

A Contamination and Remediation Assessment (CRA) was also undertaken that provides a review of available documentation on contamination, a conceptual site model for the area of the Planning Scheme and a high-level qualitative risk assessment to establish low, medium and high risk areas. It also includes outline remediation measures including requirements relating to detailed site-specific investigations and contaminated land risk assessments at project level.

Various policies and objectives have been integrated into the Draft Planning Scheme through the SEA, SFRA, AA and CRA processes. The preparation of the Draft Planning Scheme, SEA, AA, SFRA and CRA has taken place concurrently and the findings of the AA, SFRA and CRA have informed both the Draft Planning Scheme and the SEA.

## 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.

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.

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<sup>35</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/programme/project to proceed; and
- (c) adequate compensatory measures in place.

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/ Amenity
Biodiversity, flora and fauna		No	Yes	Yes	Yes	Yes	No	Yes
Population and Human Health			Yes	Yes	Yes	Yes	No	Yes
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/ Amenity								

## 8.4 Overall Findings

Table 8.4 details the overall findings of the SEA of Draft Planning Scheme Provisions. This table details: significant positive effects, likely to occur; potential effects, if unmitigated; residual adverse effects (considering the extent of detail provided by the Draft Planning Scheme and assuming that all mitigation measures are complied with by development). Cumulative effects considered by the assessment include those detailed under Section 7.3.

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 the SEA, AA, SFRA and CRA processes and which have been integrated into the Draft Planning Scheme.

Section 9 outlines the measures that will mitigate the potential effects that are detailed in this section.

In summary:

- By providing re-development of a brownfield site within the City, the Scheme will contribute towards sustainable mobility, minimising increases in energy usage and emissions to air, including greenhouse gas emissions and other emissions. It will also avoid the need to develop more sensitive greenfield lands elsewhere in the City and beyond thereby avoiding potential adverse effects on various environmental components.
- The Scheme will contribute towards the protection of amenity and ecological resources along the coastal edge of the SDZ.
- Taking into account the mitigation measures that are being integrated into the Planning Scheme, the Scheme will not affect the integrity of the Natura 2000 network of designated sites<sup>36</sup>.
- Development will not be located within areas of elevated flood risk and the Scheme will contribute towards flood risk management.
- Appropriate provisions have been integrated into the Planning Scheme in order to manage remediation of contaminated lands at project level.

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<sup>36</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/programme/project to proceed; and

(c) adequate compensatory measures in place.

**Table 8.4 Overall Findings – Effects arising from the Preferred Alternative Scenario for the Draft Planning Scheme**

Environmental Component	Significant Positive Effect, likely to occur	Potential Significant Adverse Effect, if unmitigated	Residual Non-Significant Adverse Effects
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> <li>• Facilitates lower overall effects on ecology (including designated sites, ecological connectivity, habitats) – due to utilisation of already developed but vacant lands and use of existing utilities.</li> <li>• Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas, would mitigate conflicts with ecological resources (habitats) along the southern boundary.</li> <li>• Facilitates protection of ecology with respect to the provision of water services.</li> <li>• Facilitates contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, including water.</li> </ul>	<ul style="list-style-type: none"> <li>• Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna.</li> <li>• Habitat loss, fragmentation and deterioration, including patch size and edge effects.</li> <li>• Disturbance and displacement of protected species.</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces.</li> </ul>
Population and Human Health	<ul style="list-style-type: none"> <li>• Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:               <ul style="list-style-type: none"> <li>○ Potential exposure of dwellings/ schools/ hospitals/ nursing homes to industrial hazards of unsuitable/ incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils); and</li> <li>○ Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site.</li> </ul> </li> <li>• The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.</li> <li>• Facilitates protection of human health with respect to the provision of water services and the provision of transport infrastructure integrated with land use planning – and associated interactions with sustainable mobility, emissions and energy usage.</li> <li>• Facilitates contribution towards the protection of human health as a result of contributing towards the</li> </ul>	<ul style="list-style-type: none"> <li>• Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated.</li> <li>• Interactions if effects upon environmental vectors such as water and air are not mitigated.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential interactions with residual effects on environmental vectors. This has been mitigated by provisions which have been integrated into the Planning Scheme, including those relating to sustainable mobility and infrastructural provision.</li> </ul>

Environmental Component	Significant Positive Effect, likely to occur	Potential Significant Adverse Effect, if unmitigated	Residual Non-Significant Adverse Effects
	protection of environmental vectors, including water.		
Soil	<ul style="list-style-type: none"> <li>Facilitates lower overall effects on soil – due to utilisation of already developed but vacant lands and use of existing utilities.</li> <li>Facilitates management of potentially contaminated soils.</li> </ul>	<ul style="list-style-type: none"> <li>Loss of soil function.</li> <li>Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term.</li> </ul>	<ul style="list-style-type: none"> <li>Losses of soil function on made ground.</li> </ul>
Water	<ul style="list-style-type: none"> <li>Facilitates lower effects on ground and surface waters due to utilisation of already developed but vacant lands and use of existing utilities.</li> </ul>	<ul style="list-style-type: none"> <li>Adverse impacts upon the status of water bodies arising from changes in quality, flow and/or morphology.</li> <li>Interactions with flood risk.</li> </ul>	<ul style="list-style-type: none"> <li>Any increase in loadings as a result of development (these would be in compliance with River Basin Management Plans).</li> <li>Development to both: avoid areas of elevated flood risk; and not increase areas of elevated flood risk.</li> </ul>
Material Assets (it is the function of Irish Water to provide for water services needs)	<ul style="list-style-type: none"> <li>Provides for planned infrastructure including water services infrastructure and transport infrastructure.</li> <li>Make use of existing water services.</li> </ul>	<ul style="list-style-type: none"> <li>Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).</li> <li>Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).</li> <li>Increases in waste levels.</li> </ul>	<ul style="list-style-type: none"> <li>Residual wastes (these would be disposed of in line with higher level waste management policies).</li> </ul>
Air and Climatic Factors/ Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases)	<ul style="list-style-type: none"> <li>Facilitates contribution towards a shift from car to more sustainable and non-motorised transport modes.</li> <li>Facilitates contribution towards reducing increases in travel related greenhouse gas and other emissions to air that would occur as a result developing sites that are further from the City and less well serviced.</li> <li>A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and the infiltration of a rapid bus loop into the site is provided for. Efforts to improve sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases) would be further contributed towards by the provision of community uses in the west of the site.</li> </ul>	<ul style="list-style-type: none"> <li>Emissions to air including greenhouse gas emissions and other emissions.</li> </ul>	<ul style="list-style-type: none"> <li>An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable mobility.</li> </ul>

Environmental Component	Significant Positive Effect, likely to occur	Potential Significant Adverse Effect, if unmitigated	Residual Non-Significant Adverse Effects
Cultural Heritage	<ul style="list-style-type: none"> <li>Contribution towards the protection of cultural heritage by facilitating compliance with protection legislation.</li> </ul>	<ul style="list-style-type: none"> <li>Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.</li> </ul>	<ul style="list-style-type: none"> <li>Potential alteration to the context and setting of architectural heritage (this would occur in compliance with legislation).</li> <li>Potential alteration to the context and setting of archaeological heritage (this would occur in compliance with legislation).</li> <li>Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Planning Scheme.</li> </ul>
Landscape /Amenities	<ul style="list-style-type: none"> <li>Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas, would mitigate loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site.</li> <li>The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.</li> </ul>	<ul style="list-style-type: none"> <li>Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks.</li> </ul>	<ul style="list-style-type: none"> <li>The Planning Scheme contributes towards the protection of amenities. These semi natural amenities will change overtime as a result of natural changes in vegetation cover combined with new developments.</li> </ul>

## 8.5 Detailed Evaluation

### 8.5.1 Chapter 2: Vision and Key Principles

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.2 on page 60.

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Vision</b>				
<p>The three tiered vision for the development of Poolbeg West is to:</p> <ul style="list-style-type: none"> <li>CONNECT with the physical, environmental, economic and social fabric of the city, the bay and adjoining neighbourhoods;</li> <li>CREATE a new sustainable urban neighbourhood that responds to the areas unique location and enhances the enjoyment of local amenities; and</li> <li>PROTECT the special status of Dublin Bay, the intrinsic functions of the port/municipal facilities and the amenity of existing and future residents.</li> </ul>	<b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>	<b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>		
<b>Key Principles</b>				
<p>This vision is expanded below as set of Key Principles that will shape the development of the Poolbeg West:</p> <ul style="list-style-type: none"> <li><i>Connect with the City</i> Key Principle: Provide strong social economic and transportation connections between Poolbeg West and the rest of the City, including the central area.</li> <li><i>Connect with the Bay</i> Key Principle: Enhance the lifestyle opportunities for future residents, existing communities and visitors to the area by providing strong physical, visual and ecological connections to Dublin Bay.</li> <li><i>Connect with the Neighbourhoods</i> Key Principle: Promote the integration of Poolbeg West with the surrounding communities of Irishtown, Ringsend and Sandymount.</li> <li><i>Create a Sustainable Neighbourhood</i> Key principle: Establish a new urban neighbourhood that sustains the future population and workforce of Poolbeg West and complements and enhances the services available in surrounding communities.</li> <li><i>Create a Quality Place</i> Key Principle: Ensure the highest standards of urban design and place making are applied to Poolbeg West in response to the unique qualities of the peninsula and surrounding neighbourhoods.</li> <li><i>Create a Destination</i> Key Principle: Increase and enhance opportunities for people to enjoy the amenities of the peninsula and surrounding areas.</li> <li><i>Protect Dublin Bay</i> Key principle: Ensure that all measures are taken to mitigate against any potential impacts on Dublin Bay and its environs.</li> <li><i>Protect the Intrinsic Operations of the Port and Municipal Facilities</i> Key principle: Ensure that the development of Poolbeg West and the ongoing operations of Dublin Port and municipal facilities are mutually taken in account and integrated into the urban structure of the City.</li> </ul>	<b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>	<b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>		

- *Protect and Enhance the Amenity of Residents*  
Key Principle: To ensure that the well-being and safety of residents is not adversely affected by nearby industries and the threats of Climate Change and that the amenities of existing and future residents are protected and enhanced.

**Commentary:**

*This Vision is expanded through the Key Principles, together with a Concept Plan map (see edited version highlighting mitigation at Figure 9.1 on 83), that will shape the development of the Poolbeg West. The residential potential identified by the Planning Scheme is approximately 3,000 additional residential units at a net residential density of 260- 300 units per hectare (uph). This estimated housing yield equates to a residential population of circa 7,000. The Planning Scheme identifies that the Poolbeg West SDZ can accommodate 80,000 - 100,000m<sup>2</sup> of commercial floorspace, providing employment for up to 8,000 workers.*

*Both the Vision and Key Principles reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.*

*The Planning Scheme would be likely to contribute towards a significant reduction in the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced. This would result in significant positive environmental effects upon various environmental components (SEOs B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1, these are detailed under Table 8.4).*

*A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and the infiltration of a rapid bus loop into the site is provided for. Efforts to improve sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases) would be further contributed towards by the provision of community uses in the west of the site (SEO C1).*

*Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:*

- *Potential exposure of dwellings/ schools/ hospitals/ nursing homes to industrial hazards of unsuitable/ incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) (SEO PHH1);*
- *Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site (SEO PHH2); and*
- *Conflicts with ecological resources (habitats) along the southern boundary (SEO B1 B2 B3).*

*The heights of buildings would contribute towards the protection of amenity (SEOs PHH2 L1), especially in surrounding coastal areas.*

*The following potentially significant adverse effects (detailed under Table 8.4) could occur, if unmitigated, as a result of implementing the Planning Scheme:*

- *Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna (SEO B1).*
- *Habitat loss, fragmentation and deterioration, including patch size and edge effects (SEO B2).*
- *Disturbance and displacement of protected species (SEO B3).*
- *Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated (SEO PHH1).*
- *Interactions if effects upon environmental vectors such as water and air are not mitigated (SEO PHH1).*
- *Loss of soil function (SEO S1).*
- *Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term (SEOs S1 W1 W2 PHH1 B1 B2 B3).*
- *Adverse impacts upon the status of water bodies arising from changes in quality, flow and/or morphology (SEOs W1 W2).*
- *Interactions with flood risk (SEO W3).*
- *Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts) (SEO M1).*
- *Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts) (SEO M2).*
- *Increases in waste levels (SEO M3).*
- *Emissions to air including greenhouse gas emissions and other emissions (SEO C1).*
- *Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities (SEOs CH1 CH2).*
- *Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks (SEO L1 PHH2).*

*Potential conflicts would be mitigated to the extent that **only non-significant** adverse residual effects would occur. Non-significant residual effects are detailed on Table 8.4 and mitigation measures are detailed in Section 9 of this report.*

## 8.5.2 Chapter 3: A New Residential Neighbourhood

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
<p>H1 To provide high quality, environmentally sustainable, adaptable homes, providing for a range of household types including single occupants, couples, families, students, older persons and those with disabilities.</p> <p>H2 To ensure that new housing is delivered in tandem with supporting social infrastructure.</p> <p>H3 to promote sustainable higher densities and high quality design achieving generous, high quality internal, communal and public spaces designed around flexible living, good natural light and generous storage.</p> <p>H4 To ensure that the spaces between and within housing developments is of a high quality, with an attractive public realm, that the courtyards are finished to a high design and durability standard reflective of the maritime location and include play facilities across a range of age groups.</p> <p>H5 To seek mix of unit types within each urban block (A1 –A4 inclusive, see chapter 11), and in accordance with the Housing Strategy, in order to help address housing demand and ensure a balanced social mix. Where the scheme is a dedicated build-to-rent proposals including studios/shared accommodation, the mix shall comply with table 3.2. To avoid domination of any particular unit mix or tenure, any such build to rent proposal shall be limited to one scheme in the range of 100-150 units within in each urban block.</p> <p>H6 To create a socially integrated neighbourhood which encourages tenure diversity and creates a good mix of housing types integrated into the area. All social housing shall be provided or proposed as set out in planning legislation. The required proportion shall be delivered within each large-scale urban block as the scheme is developed to avoid undue social segregation, and in accordance with the phasing programme.</p> <p>H7 To support and promote the development of a socially balanced community by encouraging a variety of housing unit types, tenures and funding models and encourage the provision of affordable housing within the Scheme and collaborations with approved voluntary and co-operative housing bodies as appropriate, to be spread across the housing area.</p> <p>H8 All residential proposals shall comply with the policies and objectives of the Dublin City Development Plan 2016-2022 in relation to quality, daylight, open space and residential amenity, and particularly chapter 5; 'Quality Housing', Chapter 12; 'Sustainable Communities and Neighbourhoods', chapter 16; Development Standards, and also the provisions of the Dublin City Council Housing Strategy as set out in Appendices 2A/2B of the Development Plan.</p> <p>H9 To promote housing layouts that encourage successful community integration both in terms of large-scale physical planning and also in regard to access to supporting services such as retail, leisure, and community uses.</p> <p>H10 To create urban blocks/streets with a distinctive and varied architectural character within the overall housing and commercial areas to avoid blandness and promote identity as part of placemaking.</p> <p>H11 To promote sustainable building design in accordance with paragraph 3.6 above.</p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>		
<p><b>Commentary:</b></p> <p><i>These Planning Scheme objectives provide for the future development of housing and a neighbourhood at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation</i></p>				

of the selected alternative which is provided in Section 7.

The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.

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

H1 "high quality, environmentally sustainable, adaptable homes"

H2 "new housing is delivered in tandem with supporting social infrastructure"

H3 "sustainable higher densities and high quality design" achieving generous, high quality internal, communal and public spaces designed around flexible living, good natural light and generous storage"

H4 "attractive public realm"

H11 "sustainable building design"

### 8.5.3 Chapter 4: Community Development

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
<p>CD1 To promote the development of local community, cultural and recreational spaces within the SDZ, with a particular focus on the community hub and village area of the Scheme as an attraction and benefit to the residents in the area.</p> <p>CD2 To support and promote the continued role of the Ringsend and Irishtown Community Centre as the primary community resource centre that will serve the Planning Scheme area and also St. Andrew's Resource Centre as a provider of significant community facilities and supporting resources accessible to the SDZ and integrated with the wider community.</p> <p>CD3 To support the expansion and growth of existing sports, libraries and leisure facilities, in particular water based sports (consistent with nature conservation policy), in recognition of the waterside context of the SDZ, and the strong maritime traditions of the Ringsend/Irishtown area for the benefit of the local community and in particular programmes that encourage engagement by younger people.</p> <p>CD4 To promote commercial facilities such as local supermarkets, restaurants, cafes and leisure facilities that provide opportunities for local employment and also to promote locations for the community to interact, meet and socialise (to assist community development).</p> <p>CD5 To reserve a site within the Planning Scheme to accommodate a new educational facility to serve the SDZ, and to work with the Department of Education &amp; Skills where the decision is made to proceed with a new school. The design of any new educational facility shall ensure that facilities such as pitches and/or halls can be used out of hours, and the Council will work with the Department to maximise opportunities for high quality shared facilities.</p> <p>CD6 To improve the quality of life for older people in the area by implementing the actions of the Dublin Age Friendly City Strategy 2014-2019.</p> <p>CD7 To co-ordinate, with other agencies, on the continued support for and enhancement of youth and senior citizen services in the local area for inclusive and integrated communities.</p> <p>CD8 To require the provision of social, cultural, creative and artistic purposes in the SDZ to contribute to the 5% allocation of such spaces in the docklands area. This space can be provided in tandem with community needs identified through community audits to achieve viable economies of scale. The space can also be achieved through existing or other planned community spaces within and close to the SDZ, subject to the approval of Dublin City Council.</p> <p>CD9 All large proposals (as defined by the City Development Plan, Section 16.10.4) shall undertake an updated community audit, drawing from and in accordance with the 2015 Dublin City Council Community Audit, and as part of</p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>		

the planning application process address how the development will contribute to the range of supporting community infrastructure, including childcare facilities.				
<p><b>Commentary:</b></p> <p><i>These Planning Scheme objectives provide for future community and associated development at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p> <p><i>The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.</i></p> <p><i>Also, many of these provisions contribute towards sustainable development/the protection and management of the environment, for example:</i></p> <p><i>CD1 "promote the development of local community, cultural and recreational spaces within the SDZ"</i>  <i>CD3 "water based sports (consistent with nature conservation policy)"</i>  <i>CD5 "new educational facility to serve the SDZ"</i>  <i>CD9 "contribute to the range of supporting community infrastructure, including childcare facilities"</i></p>				

### 8.5.4 Chapter 5: Economy and Employment

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<p><b>Objectives</b></p> <p>EC1 To provide for between 80,000 and 100,000m<sup>2</sup> new commercial office/enterprise space in the Planning Scheme, in a mix of office types and scales, incorporating flexible building formats and adaptable to range of uses including incubator spaces, enterprise, media and port/international shipping offices, and hotel uses. Up to 50,000 sq. m. of commercial is also provided for north of South Bank road in the long term, when the final routing of the Eastern By-Pass is finalised; to allow for a more urban character to South Bank Road.</p> <p>EC2 Development a new commercial area within the Planning Scheme, to meet two key principles of the Scheme of protecting and creating quality new places by (i) provision of a buffer of development between the residential and port uses; and (ii) provide local employment within the Scheme that will reduce trip generation, and provide for two directional commuting on public transport between the City core and the Scheme and also bring vitality and trade to the area.</p> <p>EC3 To protect the role of Dublin Port as a nationally important strategic asset of the State, and to provide for future growth of the port within the SDZ in line with economic recovery, and in tandem with investment in transport infrastructure as needed.</p> <p>EC4 To provide for the development of a new neighbourhood retail centre in the Planning Scheme, to take place in tandem with new housing development so that the area is well served with local services and shopping facilities, easily accessible and focussed in the heart of the Scheme to create a vibrant new village centre.</p> <p>EC4 To ensure that the new retail/commercial hubs address and animate the streets of the planning scheme, encouraging connectivity between the retail area and the Village Square, with a quality public realm where people can meet and interact.</p> <p>EC5 To create a vibrant retail and commercial core with animated streetscapes and active street frontages around the</p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>		

<p>Village Square.</p> <p>EC6 To Encourage the provision of mixed-use developments incorporating retail, office, residential and live-work units in appropriate locations, and the creation of small start-up units.</p> <p>EC7 To investigate the potential to create linkages between Poolbeg West and the emerging economic clusters in the docklands and clusters in the rest of city, as well as fostering collaborative network synergies between the clusters on a city-wide basis.</p> <p>EC8 To encourage and facilitate a range of office and enterprise typologies to cater for the key growth areas and to meet business life-cycle needs from start-up to growth phase and maturity, and to provide for a range of employment opportunities in the SDZ.</p> <p>EC9 To promote the provision of incubator space and start-up facilities as part of conventional office development to foster synergies between companies of different sizes and across different sectors.</p> <p>EC10 To liaise with agencies and organisations working in the Poolbeg/Ringsend area to maximise educational opportunities and support access to employment for local residents of Poolbeg and the surrounding area.</p> <p>EC11 To facilitate agencies and organisations, in particular those engaged in employment and training initiatives in Poolbeg, to work together in a co-ordinated manner in order to maximise employment, volunteer and training opportunities for residents of all ages in Poolbeg and the surrounding area.</p> <p>EC12 To seek to deliver a range of outdoor cafés, pedestrian spaces, cultural activities and municipal Wi-Fi zones to create a vibrant urban working and living environment.</p>				
<p><b>Commentary:</b></p> <p><i>These Planning Scheme objectives provide for future economic and employment development at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p> <p><i>The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.</i></p> <p><i>Also, many of these provisions contribute towards sustainable development/the protection and management of the environment, for example:</i></p> <p><i>EC1 "provide for between 80,000 and 100,000m<sup>2</sup> new commercial office/enterprise space in the Planning Scheme"</i></p> <p><i>EC2 "(i) provision of a buffer of development between the residential and port uses; and (ii) provide local employment within the Scheme that will reduce trip generation".</i></p> <p><i>EC3 "protect the role of Dublin Port as a nationally important strategic asset of the State"</i></p> <p><i>EC4 "provide for the development of a new neighbourhood retail centre in the Planning Scheme"</i></p> <p><i>EC4 "connectivity between the retail area and the Village Square, with a quality public realm"</i></p>				

## 8.5.5 Chapter 6: Movement

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
<p>MV1 To promote a high level of use of sustainable forms of transport including walking, cycling and public transport use having regard to the City Development Plan and national level policies.</p> <p>MV2 To provide an improved public transport services to the area including a core bus link to the City Centre via the proposed Dodder Bridge, enhanced/extended bus services along existing routes, and in the longer term, to provide for delivery of Luas to Poolbeg as part of the planned Red line extension under the National Transport Authority Strategy 2016-2035.</p> <p>MV3 To actively pursue the delivery of the Dodder (or 'Gut') bridge to facilitate the full build-out of the planning scheme in accordance with the Phasing programme as set out in the Land-Use and Phasing chapter. This bridge shall be designed to facilitate public transport and walking/cycling.</p> <p>MV4 To protect the route of the proposed Southern Port Access Route and Eastern Bypass in accordance with the objectives of Transport Infrastructure Ireland and the National Transport Authority Strategy for the Greater Dublin Area 2016-2035. As an interim measure it is proposed to provide a separate road access to the south port area via a new link located north of the existing Seán Moore Roundabout.</p> <p>MV5 To seek the upgrading of roads and junctions in the immediate vicinity of the SDZ to accommodate improved public transport priority and active modes. These works will include new signalised junctions at the Sean Moore Road/ South Bank Road Roundabout, at the Beach Road/ Sean Moore Road junction. A new pedestrian and cycle link across the River Liffey, located immediately parallel to the East link Bridge will also be prioritised.</p> <p>MV7 To promote the development of an improved cycle network in accordance with the NTA's Cycle Network Plan, and to seek (inter alia) the following cycle connections in cooperation with the National Transport Authority:</p> <ul style="list-style-type: none"> <li>• Pigeon house Road to John Rogerson's Quay via proposed Dodder Bridge.</li> <li>• Bremen Road to Bridge Street (R802) via Ringsend Park.</li> <li>• Greenway link from Sean Moore Park to the end of Poolbeg Peninsula, integrated with the proposed coastal promenade walking/cycling route.</li> </ul> <p>The above shall link to existing and proposed primary routes including the East Coast trail along Beach Road and both the Liffey and Canal Greenway.</p> <p>MV8 To promote the redirection of port and port-related heavy traffic away from South Bank Road. This will be achieved through provision of alternative routes for such traffic and HGVs and also through traffic management, thereby ensuring a high level of amenity for those occupying non-port commercial and residential buildings.</p> <p>MV9 That all applications for urban blocks are accompanied by Travel Plans demonstrating how commuter based car use can be minimised and other sustainable modes of travel provided in accordance with best practice mobility management (see Appendix 4 of the Dublin City Development Plan)</p> <p>MV10 To provide the cycle routes (including Coastal Greenway) indicated in Figure 6.2.</p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>		
<b>Commentary:</b>				
<p><i>These Planning Scheme objectives provide for development associated with movement/transport at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p>				

The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.

The provisions of the Planning Scheme relating to transport will primarily contribute towards sustainable development; maximising sustainable mobility and resulting in associated interactions with emissions to air, energy usage and human health (SEOs C1 PHH1).

Many of the objectives and supporting text in this chapter refer to transport projects around the Docklands and Poolbeg Peninsula that have already been adopted as part of other plans/programmes etc. that have been subject to SEA/AA as relevant. Such projects include:

- Sustainable transport initiatives within the Docklands area (Dublin City Development Plan);
- Integrated transport strategy for the entire Docklands area (Dublin City Development Plan);
- Cycling infrastructure along the wider coastline including the Sutton to Sandycove cycleway (National Cycle Framework, National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, land use plans of adjoining planning authorities) and the proposed cycle and walkway along the waterfront around the Docklands, around the Poolbeg Peninsula and linking the City with the South Bull Wall (Dublin City Development Plan);
- Extension of the Luas to Poolbeg (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan);
- Dodder 'Gut' Bridge between Grand Canal Dock and Ringsend (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, Planning Scheme for Grand Canal Dock and North Lotts); and
- The eastern bypass and southern port access route (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, land use plans of adjoining planning authorities).

Works arising outside of the SDZ as a partial result of providing for new development within the Planning Scheme area including those arising as a result of the cumulative provision of development in the wider Dublin City and Region would potentially conflict with, if unmitigated, a number of environmental components, across the wider Dublin City and Region, including: ecology, soil function, the status of water bodies and the landscape (these effects would be consistent with those detailed under Section 7 and Table 8.4).

Some of these conflicts would be mitigated by measures which will be integrated into the Draft Planning Scheme while some will be mitigated by measures arising out of separate consent procedures.

Furthermore, works within the SDZ would cumulatively contribute towards potentially adverse environmental effects in combination with projects in the wider Dublin City and Region. Measures have been integrated into the Planning Scheme that will help to ensure that conflicts are mitigated to the extent that only non-significant adverse residual effects would occur. Non-significant residual effects are detailed on Table 8.4 and mitigation measures are detailed in Section 9 of this report.

## 8.5.6 Chapter 7: Infrastructure and Utilities

For an explanation of SEO codes e.g. B1, B2, B3, PHH1, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
IU 1. To require all proposed developments to carry out a site specific Flood Risk Assessment (SSFRA) that shall demonstrate compliance with: <ul style="list-style-type: none"> <li>• The Planning System and Flood Risk Management, Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, November 2009, as may be revised/updated).</li> <li>• The prevailing Dublin City Development Plan.</li> </ul> Such assessments shall: <ul style="list-style-type: none"> <li>• Pay particular emphasis to residual flood risks, site-specific mitigation measures, flood resilient design and construction, and any necessary management measures (Appendix B4 of the above mentioned national guidelines refers).</li> </ul>	<b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>	<b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>		

<ul style="list-style-type: none"> <li>• Give attention (in the SSFRA and in building design) to creating a successful interface with the public realm through good design that addresses flood concerns but also maintains appealing and functional streetscapes</li> <li>• Consider and mitigate any pluvial flood risk, having regard to Pluvial Flood Risk Maps from the Dublin Pluvial Study</li> <li>• Take into account potential increase in flood risk arising from subsidence in areas that have been infilled.</li> <li>• Ensure that Strategic Flood Risk Assessments and site-specific Flood Risk Assessments consider and provide information on the implications of climate change with regard to flood risk in relevant locations. The 2009 OPW Draft Guidance on Assessment of Potential Future Scenarios for Flood Risk Management (or any superseding document) shall be in this regard.</li> <li>• Assess flood risk for all parts of the development including any proposals for underground parking and storage areas, recognising that no underground offices or residential units (whether temporary or permanent) will be allowed.</li> <li>• Demonstrate that relevant development management measures detailed in the Dublin City Development Plan 2016-2022 SFRA have been integrated into the development proposal.</li> </ul> <p>IU 2. To require all large development proposals to include water conservation and demand management measures</p> <p>IU 3. That all new developments shall be required to comply with the standards set out in the Greater Dublin Strategic Drainage Study (GSDSDS)</p> <p>IU 4. To achieve best practice and innovations in SUDS design as part of the planning scheme, including the successful coordination of surface water management with ecology and amenity functions of open space and landscaped areas. All planning applications shall be accompanied by a surface water drainage plan which will include proposals for the management of surface water within sites, protecting the water quality of the existing water bodies and ground water sources, and retrofitting best practice SUDS techniques on existing sites, where possible. Such a plan shall demonstrate that surface water runoff will be limited to current values, as required by the Dublin City Development Plan 2016-2022. Where a planning application depends upon any pipes draining to the sea, such pipes should be fitted with non-return valves in order to prevent back flow from sea where relevant.</p> <p>IU 5. To ensure that development is permitted in tandem with available waste water, surface water and water supply, and to manage development, so that new schemes are permitted only where adequate water supply resources exist or will become available within the life of a planning permission</p> <p>IU 6. To require the provision of ducting for information communication technology within individual new residential and commercial developments</p> <p>IU 7. To maintain good air quality in accordance with national and EU policy directives on air quality and where appropriate promote compliance with established targets</p> <p>IU 8. To minimise the adverse impacts of noise to all sensitive receptors and promote a good quality of life for the existing and future residents of the plan area, through the effective management of noise in line with the Dublin Agglomerations Noise Action Plan</p> <p>IU 9. That all proposed developments of an appropriate scale be district heating-enabled in order to provide an environmentally sustainable option for heating and cooling</p> <p>IU 10. To investigate the feasibility of providing a district heating boiler station in the eastern/industrial portion of the SDZ area.</p> <p>IU 11. That all undeveloped sites be remediated to internationally accepted standards prior to redevelopment. All applications shall be accompanied by a report from a qualified, expert consultant detailing compliance with the remediation measures as outlined in the Remediation Measures Report. The remediation shall incorporate international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Soil remediation measures shall require a licence from the EPA under the Waste Management Act 1996.</p> <p>IU 12. That all developments will comply with the waste policy as set out in the Dublin City Development Plan 2016-2022</p> <p>IU 13. To ensure the protection of surface and ground water quality in the plan area and surrounding areas, and the protection of protected habitats and species including designated national and international conservation sites in implementing the plan and to meet the requirements of the Water Framework Directive</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental</p>				
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<p>Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes.</p> <p>IU 15. To promote energy efficiency, energy conservation, and the increased use of renewable energy in the SDZ.</p>				
<p><b>Commentary:</b></p> <p><i>These Planning Scheme objectives provide for infrastructural and utility development at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p> <p><i>The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.</i></p> <p><i>Works arising outside of the SDZ as a partial result of providing for new development within the Planning Scheme area including those arising as a result of the cumulative provision of development in the wider Dublin City and Region would potentially conflict with, if unmitigated, a number of environmental components, across the wider Dublin City and Region, including: ecology, soil function, the status of water bodies and the landscape (these effects would be consistent with those detailed under Section 7 and Table 8.4).</i></p> <p><i>Some of these conflicts would be mitigated by measures which will be integrated into the Draft Planning Scheme while some will be mitigated by measures arising out of separate consent procedures.</i></p> <p><i>Furthermore, works within the SDZ would cumulatively contribute towards potentially adverse environmental effects in combination with projects in the wider Dublin City and Region. Measures have been integrated into the Planning Scheme that will help to ensure that conflicts are mitigated to the extent that only non-significant adverse residual effects would occur. Non-significant residual effects are detailed on Table 8.4 and mitigation measures are detailed in Section 9 of this report.</i></p> <p><i>Objectives IU 1, IU 3, IU 4 and IU 14 will primarily contribute towards improvements in flood risk management and sustainable drainage of the lands once developed (SEOs W3 PHH1). By contributing towards the sustainable drainage of these lands, these provisions would also contribute towards the protection/management of various environmental components including human health, biodiversity, flora and fauna and the status of waters (SEOs PHH1 B1 B2 B3 W1 W2).</i></p> <p><i>The appropriate treatment of waste water (Objective IU5: SEO M1) would contribute towards the protection/management of various environmental components including human health, biodiversity, flora and fauna and the status of waters (SEOs PHH1 B1 B2 B3 W1 W2).</i></p> <p><i>The provision of safe drinking water (Objectives IU2 and IU5: SEO M2) would contribute towards the protection of human health (SEO PHH1).</i></p> <p><i>Objectives IU9 and IU10 relate to district heating facilitation which has the potential to reduce energy requirements and associated greenhouse gas and other emissions to air (SEO PHH1).</i></p> <p><i>Objective IU 11 was integrated into the Planning Scheme as a result of a recommendation from the Contamination and Remediation Assessment that was undertaken alongside the preparation of the Planning Scheme (please refer to Section 4.5.3 and 8.2). This provision contributes towards the protection of a variety of environmental components including human health, water quality, biodiversity and flora and fauna (SEOs PHH1 W1 W2 B1 B2 B3).</i></p> <p><i>Other objectives in this chapter primarily provide for environmental protection and management:</i></p> <p><i>IU 7. "maintain good air quality"</i></p> <p><i>IU 8. "minimise the adverse impacts of noise to all sensitive receptors"</i></p> <p><i>IU 13. "protection of surface and ground water quality in the plan area and surrounding areas, and the protection of protected habitats and species including designated national and international conservation sites in implementing the plan and to meet the requirements of the Water Framework Directive"</i></p> <p><i>IU 14. "require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes."</i></p> <p><i>IU 15. "promote energy efficiency, energy conservation, and the increased use of renewable energy in the SDZ."</i></p>				

## 8.5.7 Chapter 8: Environment, Green Infrastructure and Open Space

For an explanation of SEO codes e.g. **B1**, **B2**, **B3**, **PHH1**, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
<p>G11 To develop a hierarchy of inter-connected open spaces, recreation areas and green landscaped areas, via walking and cycling routes, through the SDZ and ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G14 To respect the integrity of designated nature areas and seek to achieve favourable conservation status of the habitats in these designated areas.</p> <p>G15 All developments in the SDZ should have regard to the mitigation measures set out in Environmental report.</p> <p>G16 To require that all development proposals, including internal courtyards, maximise the opportunities for ecological and biodiversity enhancement</p> <p>G17 To ensure that in new residential developments, public and communal open space is provided which is sufficient in quantity and distribution to meet the requirements of the projected population and includes play facilities for children.</p> <p>G18 To seek the development of Coastal Park, Village Green and Port Park in the SDZ area offering new amenities and recreational activities and to support the upgrade of existing parks and amenity areas adjoining the SDZ</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDs) in all developments, incorporating a sequence of SUDS techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p> <p>G110 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>G111 Any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article (3) of the Habitats Directive.</p> <p>G112 To promote environmental stewardship by managing invasive species and human-wildlife conflicts with birds' species and to improve water quality.</p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>		
<b>Commentary:</b>	<p><i>These Planning Scheme objectives relating to environmental, green infrastructure and open space issues at Poolbeg West will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p> <p><i>The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.</i></p> <p><i>As detailed in Section 8.4.7 "SEVESO III Sites" of the Planning Scheme: "It is policy of Dublin City Council to have regard to the provisions of the Major Accidents Directive relating to the control of major accident hazards involving dangerous substances. Its objectives are to prevent major accidents and limit the consequences of such accidents. Dublin City Council will have regard to the provisions of the</i></p>			

Directive and recommendations of the HSA in the assessment of all planning applications located within the consultation distance of such sites". This policy will contribute towards the protection of a variety of environmental components including human health, water quality, biodiversity and flora and fauna (SEOs PHH1 W1 W2 B1 B2 B3).

Many of the provisions in this Chapter primarily contribute towards both sustainable development and the protection and management of the environment, for example:

G11 "ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced."

G12 "urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption."

G13 "improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation."

G14 "respect the integrity of designated nature areas and seek to achieve favourable conservation status of the habitats in these designated areas."

G15 "All developments in the SDZ should have regard to the mitigation measures set out in Environmental report."

G16 "maximise the opportunities for ecological and biodiversity enhancement"

G19 "require Sustainable Urban Drainage Systems (SUDs) in all developments"

G10 "boost biodiversity and improve surface water management within the SDZ area"

G111 "Any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article (3) of the Habitats Directive."

G112 "promote environmental stewardship by managing invasive species and human-wildlife conflicts with birds' species and to improve water quality."

## 8.5.8 Chapter 9: Land Use and Phasing

For an explanation of SEO codes e.g. B1, B2, B3, PHH1, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
<p>LP1 Land uses shall comply with Figure 9.1, so that only appropriate uses are permitted within each Block.</p> <p>LP2 To provide a land-use mix of 80% residential and 20% commercial (as set out above) across Blocks to the south of South Bank Road. Office type commercial uses shall be concentrated mainly in blocks adjoining South Bank Road.</p> <p>LP3 Active and commercial ground floor uses to be provided in the vicinity of the village hub and also at the junction of the Central Boulevard/Sean Moore Road.</p> <p>LP4 Development of blocks A1 to A4 inclusive, as shown in figure 9.2, shall be in compliance with the requirements of Phasing Area A, to ensure that the amenities and protections needed for new housing is provided in tandem with housing development.</p> <p>LP5 Future expansion and development of port/industrial/utility type industry within Blocks B1 and B2 ( Fig 9.2) shall be in compliance with Phasing Area B, to ensure that the appropriate infrastructure to serve the Port and related uses is delivered when needed, and that longer term strategic infrastructure can be provided.</p> <p>LP6 Development shall be carried sequentially across the SDZ in order to avoid gap sites detrimental to amenity.</p> <p>LP7 Where possible, proposals for development within Block B1 of the SDZ (port lands) shall include proposals for the conservation/enhancement of the historic South Bull Wall.</p>	<p><b>B1 B2 B3 PHH1</b>  <b>PHH2 S1 W1 W2</b>  <b>W3 M1 M2 M3 C1</b>  <b>CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1</b>  <b>PHH2 S1 W1 W2</b>  <b>W3 M1 M2 M3</b>  <b>C1 CH1 CH2 L1</b></p>		
<b>Commentary:</b>				
<p>These Planning Scheme objectives relating to land use and phasing at Poolbeg West will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</p> <p>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</p>				

The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.

In combination with the land uses provided for by the Planning Scheme, phasing will ensure that infrastructure, services, facilities and amenities are provided together with residential, community and employment and economic development. This will contribute towards the timely and appropriate provision of transport/movement infrastructure and services (SEO C1), water services infrastructure and capacity (SEOs M1 M2) and drainage infrastructure (SEO W3), indirectly contributing towards the protection of the status of water bodies and ecology (SEOs W1 W2 B1 B2 B3).

Also, the following provisions contribute towards both sustainable development and the protection and management of the environment:

LP6 "avoid gap sites detrimental to amenity."

LP7 "include proposals for the conservation/enhancement of the historic South Bull Wall."

## 8.5.9 Chapter 10: Public Realm

For an explanation of SEO codes e.g. B1, B2, B3, PHH1, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<p><b>Public Realm Aims</b></p> <p>The 4 main aims for the design of the public realm stem from the 3 themes 'Connect/Create/Protect' set out in the vision for the area (in chapter 2). These aims include:</p> <p>Place-making:                      To create an attractive and high quality public domain with ancillary service infrastructure to create an exemplary mixed-use neighbourhood that residents are proud to call home, and workers and tourists enjoy visiting.                      To provide a variety of mixed-use spaces to encourage active and passive recreation for different user groups and ages for play, the arts, cultural and sporting events.                      To design streets and spaces that relate to the height and scale of adjacent buildings and achieve satisfactory levels of sunlight and daylight.                      To include specific areas that promote interaction and community development, provide shelter and security, and are pleasant to rest and linger in.                      To exploit the area's outstanding natural amenity and topography by opening views to the sea, coast, mountains and nature reserves, having regard to solar orientation and environmental comfort.                      To design a legible hierarchy of streets and spaces within the SDZ to create micro districts with different urban characters.                      To create a clear delineation between public space, private space, and communal space within the SDZ. Insofar as possible, to also ensure that all streets and spaces that are publically accessible are taken in charge, maintained and managed by Dublin City Council.                      To create visual improvements on industrial / brownfield lands in the vicinity.                      To help ensure pedestrian comfort is achieved in the public realm through appropriate building design, addressing anticipated wind related impacts through suitable wind moderation measures.</p> <p>Environmental protection and enhancement:                      To protect the SDZ area's existing natural reserves and amenity, and enhance its biodiversity through the creation of new parks, green infrastructural routes and corridors.                      To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding.</p>	<p><b>B1 B2 B3 PHH1                      PHH2 S1 W1 W2                      W3 M1 M2 M3 C1                      CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1                      PHH2 S1 W1 W2                      W3 M1 M2 M3                      C1 CH1 CH2 L1</b></p>		

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<p>To plant native flora to support and develop natural habitats for land/water based fauna.          To create green buffers between new development in the SDZ and the surrounding industrial landscape to soften their visual impact.          To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.          To encourage the use of green roofs and vertical greenery on buildings where appropriate.</p> <p>Connectivity and Movement:          To provide improved connectivity between the Poolbeg SDZ, its surrounding urban villages, and beyond to the city itself (see Figure 10.1).          To prioritise the design of the public realm for pedestrians, cyclists and public transport, to minimise the use of cars and other vehicular traffic.          To promote universal access for the disabled and mobility impaired to live a full life free from discrimination through the design of an 'enabling' environment.          To provide legible, safe connections for all ages and user groups within and through the SDZ area.</p> <p>High Quality palette of materials and street furniture:          To develop palettes for high quality street furniture and develop a materials, fixtures and fittings palette that are appropriate to the needs of different transport and user groups, i.e., pedestrians, disabled, mobility impaired, cyclists, cars, HGV's, buses etc.          To specify materials that take management and maintenance into consideration and that are in compliance with the Construction Standards for Roads and Street Works published by Dublin City Council.</p>				
<b>Objectives</b>				
<p>PR1 To prepare a public realm masterplan for this Planning Scheme within one year of the publication of Planning Scheme, based on Dublin City Councils public realm strategy addressing in detail public realm design, including inter alia, materials, planting and street furniture, for key components of the development lands, including (i) major streets; (ii) minor streets; (iii) parks, open space and green routes and screening; and (iv) courtyards.          PR2 To integrate the Planning Scheme with surrounding areas through use of quality design and upgrades of the public realm, and by minimising abrupt changes in levels at site boundaries, to create attractive connections, to and through the Poolbeg West SDZ.          PR3 To promote a maritime and ecological character to public realm and street layouts within the Scheme.          PR4 That all public realm areas are designed and built to Dublin City Council 'taking in charge standards' and are publicly accessible at all times.</p>	<p><b>B1 B2 B3 PHH1          PHH2 S1 W1 W2          W3 M1 M2 M3 C1          CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1          PHH2 S1 W1 W2          W3 M1 M2 M3          C1 CH1 CH2 L1</b></p>		
<p><b>Commentary:</b></p> <p><i>These Planning Scheme aims and objectives provide for the development of the public realm at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p> <p><i>The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.</i></p> <p><i>Most provisions in this Chapter would contribute towards sustainable development/the protection and management of the environment.</i></p> <p><i>The buffers provided as part of the public realm provisions, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would avoid and reduce:</i></p> <ul style="list-style-type: none"> <li><i>Potential exposure of dwellings/ schools/ hospitals/ nursing homes to industrial hazards of unsuitable/ incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils);</i></li> <li><i>Potential loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site; and</i></li> <li><i>Potential conflicts with ecological resources (habitats) along the southern boundary.</i></li> </ul>				

The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas. These provisions would also protect use of and access to amenities including parklands, playing fields and shore-side walks (SEOs PHH2 L1) and contribute towards uptake in smarter, more sustainable modes of transport (SEO C1).

## 8.5.10 Chapter 11: Urban Structure and Design

For an explanation of SEO codes e.g. B1, B2, B3, PHH1, etc. refer to Table 8.2 on page 60

	Likely to <b>Improve</b> status of SEOs	Likely to <b>Potentially Conflict</b> with status of SEOs - likely to be mitigated	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Objectives</b>				
<p>US1 To create an integrated, highly connected and cohesive Urban Structure that facilitates the development of a sustainable, high quality, high density mixed use neighbourhood.</p> <p>US2 To create a legible, permeable and traffic calmed street network that prioritises the movement of sustainable modes of transport and provides direct connections with the existing communities of Ringsend, Irishtown and Sandymount, and to Sean Moore Park and Dublin Bay.</p> <p>US3 To distribute land uses throughout Poolbeg West site in a manner that responds to surrounding constraints, protects sensitive areas and residential amenities and creates a series of focal points for residents and workers.</p> <p>US4 To create a varied open space/green infrastructure network that protects the coastal area, integrates with Sean Moore Park and provides a series of ecological and visual connections across Poolbeg West.</p> <p>US5 To create a distinctive and varied built environment that reinforces the urban structure, promotes a strong sense of place, minimises the impacts of overshadowing and ameliorates wind conditions.</p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	<p><b>B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>		
<p><b>Commentary:</b></p> <p><i>These Planning Scheme objectives provide for urban structure and design at Poolbeg West and will, in combination with the implementation of other provisions from the Planning Scheme, towards the overall development of the SDZ.</i></p> <p><i>These provisions reflect the selected alternative scenario for the Planning Scheme and the evaluation against Strategic Environmental Objectives (SEOs) that is provided above is consistent with the evaluation of the selected alternative which is provided in Section 7.</i></p> <p><i>The commentary provided under the evaluations at Section 8.5.1 above should also be referred to.</i></p> <p><i>The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas. These provisions would also protect use of and access to amenities including parklands, playing fields and shore-side walks (SEOs PHH2 L1) and contribute towards uptake in smarter, more sustainable modes of transport (SEO C1).</i></p> <p><i>As detailed in Section 11.5.1 "Building Heights": "All proposals must be subject to Shadow Impact Assessment and Wind Impact Analysis. The Wind Impact Analysis shall include, effects on the public realm of localised increases in wind velocities at ground floor level. In this regard, a range of mitigation measures should be included in each planning application including necessary building off-sets, architectural design and landscaping measures, such that pedestrian comfort is ensured". This policy will contribute towards ensuring pedestrian comfort thereby contributing towards sustainable mobility (SEO C1).</i></p>				

## **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. Various environmental sensitivities and issues have been communicated to the Council through the SEA, Appropriate Assessment (AA), Strategic Flood Risk Assessment (SFRA) and Contamination and Remediation Assessment (CRA) processes. By integrating all related recommendations into the Planning Scheme, the Council have ensured that both the beneficial environmental effects of implementing the Planning Scheme have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through the:

- Consideration of alternatives;
- Early and strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development; and
- Integration of individual SEA, AA, SFRA and CRA provisions into the text of the Planning Scheme.

### **9.2 Consideration of Alternatives**

A range of potential alternative 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 and Elected Members make an informed choice as to the alternative scenario that has been selected for the Draft Planning Scheme.

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

Far in advance of both the submission of the placing of the Draft Planning Scheme (and associated SEA, AA, SFRA and CRA documents) on public display, Dublin City Council undertook various works in order to inform the preparation of the Draft Planning Scheme. This included beginning the SEA, AA, SFRA and CRA processes as early in the process as possible so that these assessments could inform every aspect of the Planning Scheme. It also included the undertaking of background work in relation to various issues covered by the Planning Scheme including community, public transport, open space, drainage, land uses, block locations, phasing areas and height.

The findings of this strategic work have been integrated into the Draft Planning Scheme and will be implemented when it is adopted, contributing towards both environmental protection and management and sustainable development within the County.

Many of the features of this work can be identified from the Planning Scheme's Concept Plan detailed at Figure 9.1 overleaf.

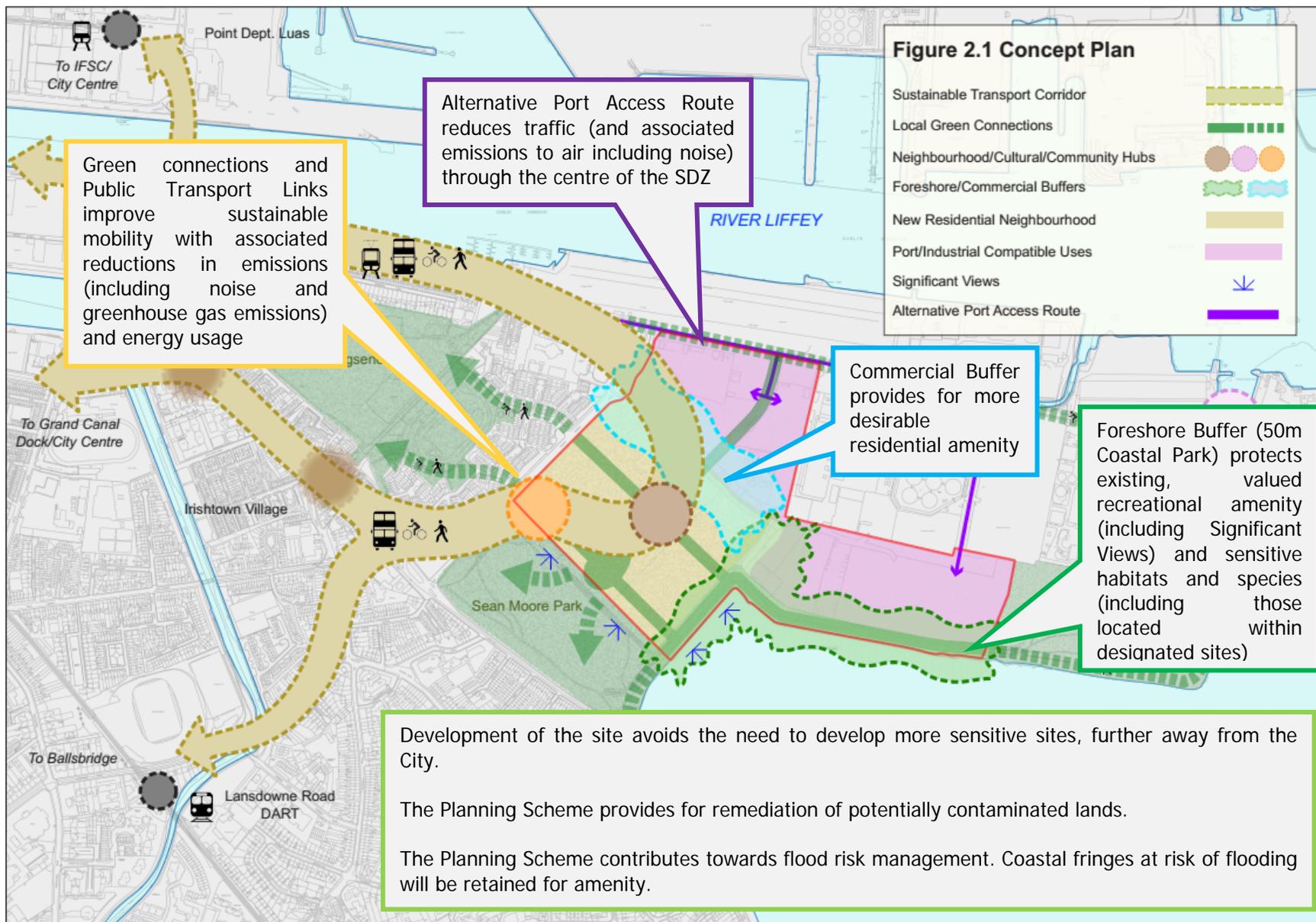


Figure 9.1 Mitigation by Avoidance: How Environmental Considerations have been integrated into the Draft Planning Scheme

## **9.4 Integration of individual SEA, AA, SFRA and CRA provisions into the text of the Plan**

Various provisions have been integrated into the text of the Draft Planning Scheme through the Planning Scheme-preparation and SEA, AA, SFRA and CRA processes. Both the Planning and the assessment teams contributed towards the mitigation which was developed over multiple iterations and was informed by, inter alia, various communications through the different assessment processes.

In addition to the mitigation measures that have been integrated into the Planning Scheme, Section 12 of the Planning Scheme states that:

'Where policies, objectives, principles or standards are not specifically addressed in the SDZ Planning Scheme (e.g. apartment size standards) those in the City Development Plan shall apply.'

Table 9.1 links key mitigation measure(s) to the potential adverse effects of implementing the Planning Scheme, if unmitigated.

The measures include those from the Planning Scheme as well as those from the City Development Plan.

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

**Table 9.1 Integration of Environmental Considerations into the Draft Plan**

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> <li>• Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna.</li> <li>• Habitat loss, fragmentation and deterioration, including patch size and edge effects.</li> <li>• Disturbance and displacement of protected species.</li> </ul>	<p>Please also refer to the relevant measures under the environmental components of Water and Landscape.</p> <p><b>Measures from the Draft Planning Scheme:</b></p> <p><i>Key Principle: Protect Dublin Bay</i> Key principle: Ensure that all measures are taken to mitigate against any potential impacts on Dublin Bay and its environs.</p> <p>CD3 To support the expansion and growth of existing sports, libraries and leisure facilities, in particular water based sports (consistent with nature conservation policy), in recognition of the waterside context of the SDZ, and the strong maritime traditions of the Ringsend/Irishtown area for the benefit of the local community and in particular programmes that encourage engagement by younger people.</p> <p>IU 13. To ensure the protection of surface and ground water quality in the plan area and surrounding areas, and the protection of protected habitats and species including designated national and international conservation sites in implementing the plan and to meet the requirements of the Water Framework Directive</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes.</p> <p>G11 To develop a hierarchy of inter-connected open spaces, recreation areas and green landscaped areas, via walking and cycling routes, through the SDZ and ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G14 To respect the integrity of designated nature areas and seek to achieve favourable conservation status of the habitats in these designated areas.</p> <p>G15 All developments in the SDZ should have regard to the mitigation measures set out in Environmental report.</p> <p>G16 To require that all development proposals, including internal courtyards, maximise the opportunities for ecological and biodiversity enhancement</p> <p>G17 To ensure that in new residential developments, public and communal open space is provided which is sufficient in quantity and distribution to meet the requirements of the projected population and includes play facilities for children.</p> <p>G18 To seek the development of Coastal Park, Village Green and Port Park in the SDZ area offering new amenities and recreational activities and to support the upgrade of existing parks and amenity areas adjoining the SDZ</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDs) in all developments, incorporating a sequence of SUDs techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p> <p>G110 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>G111 Any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article (3) of the Habitats Directive.</p> <p>G112 To promote environmental stewardship by managing invasive species and human-wildlife conflicts with birds' species and to improve water quality.</p> <p>Public Realm Aim: Environmental protection and enhancement:</p> <ul style="list-style-type: none"> <li>• To protect the SDZ area's existing natural reserves and amenity, and enhance its biodiversity through the creation of new parks, green infrastructural routes and corridors.</li> <li>• To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding.</li> <li>• To plant native flora to support and develop natural habitats for land/water based fauna.</li> <li>• To create green buffers between new development in the SDZ and the surrounding industrial landscape to soften their visual impact.</li> <li>• To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</li> <li>• To encourage the use of green roofs and vertical greenery on buildings where appropriate.</li> </ul>

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		<p>US3 To distribute land uses throughout Poolbeg West site in a manner that responds to surrounding constraints, protects sensitive areas and residential amenities and creates a series of focal points for residents and workers.</p> <p>US4 To create a varied open space/green infrastructure network that protects the coastal area, integrates with Sean Moore Park and provides a series of ecological and visual connections across Poolbeg West.</p> <p><b>City Development Plan Measures:</b></p> <p>Policy GI1: To develop a green infrastructure network through the city, thereby interconnecting strategic natural and semi-natural areas with other environmental features including green spaces, rivers, canals and other physical features in terrestrial (including coastal) and marine areas.</p> <p>Policy GI2: That any plan/project, either individually or in combination with other plans or projects that has the potential to give rise to significant effect on the integrity of any European site(s), shall be subject to an appropriate assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directives.</p> <p>Policy GI3: To develop linear parks, particularly along waterways, and to link existing parks and open spaces in order to provide green chains throughout the city. Where lands along the waterways are in private ownership, it shall be policy in any development proposal to secure public access along the waterway.</p> <p>Policy GI9: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Policy GI10: To continue to manage and protect and/or enhance public open spaces to meet the social, recreational, conservation and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.</p> <p>Policy GI16: To protect and improve the unique natural character and ecological value of all rivers within and forming boundaries to the administrative area of Dublin City Council, in accordance with the Eastern River Basin District management plan.</p> <p>Policy GI17: To develop sustainable coastal, estuarine, canal and riverine recreational amenities to enhance appreciation of coastal natural assets in a manner that ensures that any adverse environmental effects are avoided, remedied or mitigated.</p> <p>Policy GI19: To ensure a co-ordinated approach to the management of Dublin Bay with other State and semi-State agencies through the Dublin Bay Biosphere Partnership to develop a Biosphere Strategy for the sustainable development of Dublin Bay.</p> <p>Policy GI21: To support initiatives to reduce marine pollution in Dublin Bay in partnership with other organisations and to raise awareness by Bay users and the general public and also to have regard to the Marine Strategy Framework Directive (2008/56/EC.)</p> <p>Policy GI23: To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976-2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.</p> <p>Policy GI24: To conserve and manage all Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas designated, or proposed to be designated, by the Department of Arts, Heritage, Regional, Rural and Gaeltacht.</p> <p>Policy GI25: To make provisions for habitat creation/maintenance and facilitate biodiversity by encouraging the development of linear parks, nature trails, wildlife corridors, urban meadows and urban woodlands.</p> <p>Policy GI26: To have regard to the conservation and enhancement of significant non-designated areas of ecological importance in accordance with development standards set out in this plan.</p> <p>Policy GI28: To support the implementation of the Dublin City Tree Strategy, which provides the vision for the long-term planting, protection and maintenance of trees, hedgerows and woodlands within Dublin City.</p> <p>Policy GI30: To encourage and promote tree planting in the planning and development of urban spaces, streets, roads and infrastructure projects.</p> <p>Policy SI5: To promote the enhancement of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.</p>
Population and Human Health	<ul style="list-style-type: none"> <li>• Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated.</li> <li>• Interactions if effects</li> </ul>	<p>Please also refer to the relevant measures under the environmental components of Soil, Water and Air and Climatic Factors.</p> <p><b>Measures from the Draft Planning Scheme:</b></p> <p>Policy Section 8.4.7: SEVESO III Sites: It is policy of Dublin City Council to have regard to the provisions of the Major Accidents Directive relating to the control of major accident hazards involving dangerous substances. Its objectives are to prevent major accidents and limit the consequences of such accidents. Dublin City Council will have regard to the provisions of the Directive and recommendations of the HSA in the assessment of all planning applications located within the consultation distance of such sites.</p>

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	upon environmental vectors such as water and air are not mitigated.	<p><b>City Development Plan Measures:</b></p> <p>Policy SI28: To have regard to the provisions of the Major Accidents Directive (2012/18/EU), relating to the control of major accident hazards involving dangerous substances and its objectives are to prevent major accidents and limit the consequences of such accidents. Dublin City Council will have regard to the provisions of the Directive and recommendations of the HSA in the assessment of all planning applications located on or impacted by such sites.</p>
Soil	<ul style="list-style-type: none"> <li>Loss of soil function.</li> <li>Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term.</li> </ul>	<p>Please also refer to the relevant measures under the environmental component of Population and Human Health and Water.</p> <p><b>Measures from the Draft Planning Scheme:</b></p> <p>IU 11. That all undeveloped sites be remediated to internationally accepted standards prior to redevelopment. All applications shall be accompanied by a report from a qualified, expert consultant detailing compliance with the remediation measures as outlined in the Remediation Measures Report. The remediation shall incorporate international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Soil remediation measures shall require a licence from the EPA under the Waste Management Act 1996.</p> <p><b>City Development Plan Measures:</b></p> <p>Policy SI23: All potentially contaminated sites shall be remediated to internationally accepted standards prior to redevelopment. Any unearthed contaminants will require some form of remediation measures which may require a licence from the Environmental Protection Agency (EPA).</p>
Water	<ul style="list-style-type: none"> <li>Adverse impacts upon the status of water bodies arising from changes in quality, flow and/or morphology.</li> <li>Interactions with flood risk.</li> </ul>	<p>Please also refer to the relevant measures under the environmental components of Population and Human Health, Soil, Biodiversity and Flora and Fauna.</p> <p><b>Measures from the Draft Planning Scheme:</b></p> <p>IU 1. To require all proposed developments to carry out a site specific Flood Risk Assessment (SSFRA) that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> <li>The Planning System and Flood Risk Management, Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, November 2009, as may be revised/updated).</li> <li>The prevailing Dublin City Development Plan.</li> </ul> <p>Such assessments shall:</p> <ul style="list-style-type: none"> <li>Pay particular emphasis to residual flood risks, site-specific mitigation measures, flood resilient design and construction, and any necessary management measures (Appendix B4 of the above mentioned national guidelines refers).</li> <li>Give attention (in the SSFRA and in building design) to creating a successful interface with the public realm through good design that addresses flood concerns but also maintains appealing and functional streetscapes</li> <li>Consider and mitigate any pluvial flood risk, having regard to Pluvial Flood Risk Maps from the Dublin Pluvial Study</li> <li>Take into account potential increase in flood risk arising from subsidence in areas that have been infilled.</li> <li>Ensure that Strategic Flood Risk Assessments and site-specific Flood Risk Assessments consider and provide information on the implications of climate change with regard to flood risk in relevant locations. The 2009 OPW Draft Guidance on Assessment of Potential Future Scenarios for Flood Risk Management (or any superseding document) shall be in this regard.</li> <li>Assess flood risk for all parts of the development including any proposals for underground parking and storage areas, recognising that no underground offices or residential units (whether temporary or permanent) will be allowed.</li> <li>Demonstrate that relevant development management measures detailed in the Dublin City Development Plan 2016-2022 SFRA have been integrated into the development proposal.</li> </ul> <p>IU 3. That all new developments shall be required to comply with the standards set out in the Greater Dublin Strategic Drainage Study (GSDSDS)</p> <p>IU 4. To achieve best practice and innovations in SUDS design as part of the planning scheme, including the successful coordination of surface water management with ecology and amenity functions of open space and landscaped areas. All planning applications shall be accompanied by a surface water drainage plan which will include proposals for the management of surface water within sites, protecting the water quality of the existing water bodies and ground water sources, and retrofitting best practice SUDS techniques on existing sites, where possible. Such a plan shall demonstrate that surface water runoff will be limited to current values, as required by the Dublin City Development Plan 2016-2022. Where a planning application depends upon any pipes draining to the sea, such pipes should be fitted with non-return valves in order to prevent back flow from sea where relevant.</p> <p>IU 13. To ensure the protection of surface and ground water quality in the plan area and surrounding areas, and the protection of protected habitats and</p>

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		<p>species including designated national and international conservation sites in implementing the plan and to meet the requirements of the Water Framework Directive</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDS) in all developments, incorporating a sequence of SUDS techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p> <p>G110 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>Public Realm Aim: Environmental protection and enhancement:</p> <ul style="list-style-type: none"> <li>• To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding.</li> <li>• To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</li> </ul> <p><b>City Development Plan Measures:</b></p> <p>Policy SI4: To promote and maintain the achievement of at least good status in all water bodies in the city.</p> <p>Policy SI6: To promote the protection and improvement of the aquatic environment, including through specific measures for the progressive reduction or cessation of discharges and emissions.</p> <p>Policy SI7: To promote the progressive reduction of pollution of groundwater and prevent its further pollution.</p> <p>Policy GI16: To protect and improve the unique natural character and ecological value of all rivers within and forming boundaries to the administrative area of Dublin City Council, in accordance with the Eastern River Basin District management plan.</p> <p>Policy GI19: To ensure a co-ordinated approach to the management of Dublin Bay with other State and semi-State agencies through the Dublin Bay Biosphere Partnership to develop a Biosphere Strategy for the sustainable development of Dublin Bay.</p> <p>Policy GI20: To seek continued improvement in water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city, having regard to the sensitivities of Dublin Bay and to protect the ecology and wildlife of Dublin Bay.</p> <p>Policy GI21: To support initiatives to reduce marine pollution in Dublin Bay in partnership with other organisations and to raise awareness by Bay users and the general public and also to have regard to the Marine Strategy Framework Directive (2008/56/EC.)</p> <p>Policy CC5: To address flood risk at strategic level through the process of strategic flood risk assessment, and through improvements to the city's flood defences.</p> <p>Policy SI8: To mitigate the effects of floods and droughts subject to environmental assessments.</p> <p>Policy SI9: To assist the Office of Public Works in developing catchment-based Flood Risk Management Plans for rivers, coastlines and estuaries in the Dublin city area and have regard to their provisions/recommendations.</p> <p>Policy SI10: To have regard to the Guidelines for Planning Authorities on the Planning System and Flood Risk Management, and Technical Appendices, November 2009, published by the Department of the Environment, Community, and Local Government as may be revised/updated when assessing planning applications and in the preparation of plans both statutory and non-statutory.</p> <p>Policy SI11: To put in place adequate measures to protect the integrity of the existing Flood Defence Infrastructure in Dublin City Councils ownership and identified in the Strategic Flood Risk Assessment and to ensure that the new developments do not have the effect of reducing the effectiveness or integrity of any existing or new flood defence infrastructure and that flood defence infrastructure has regard also to nature conservation, open space and amenity issues.</p> <p>Policy SI12: To implement and comply fully with the recommendations of the Strategic Flood Risk Assessment prepared as part of the Dublin City Development Plan.</p>

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		<p>Policy SI13: That development of basements or any above-ground buildings for residential use below the estimated flood levels for Zone A or Zone B will not be permitted.</p> <p>Policy SI14: To protect the Dublin City coastline from flooding as far as reasonably practicable, by implementing the recommendations of the Dublin Coastal Flood Protection Project and the Dublin Safer Project.</p> <p>Policy SI15: To minimise the risk of pluvial (intense rainfall) flooding in the city as far as is reasonably practicable and not to allow any development which would increase this risk.</p> <p>Policy SI16: To minimise the flood risk in Dublin City from all other sources of flooding, including fluvial, reservoirs and dams and the piped water system.</p> <p>Policy SI17: To require an environmental assessment of all proposed flood protection or flood alleviation works.</p> <p>Policy SI18: To require the use of Sustainable Urban Drainage Systems in all new developments, where appropriate, as set out in the Greater Dublin Regional Code of Practice for Drainage Works. The following measures will apply:</p> <ul style="list-style-type: none"> <li>• The infiltration into the ground through the development of porous pavement such as permeable paving, swales, and detention basins</li> <li>• The holding of water in storage areas through the construction of green roofs, rainwater harvesting, detention basins, ponds, and wetlands</li> <li>• The slow-down of the movement of water.</li> </ul> <p>Policy GI4: To co-ordinate open space, biodiversity and flood management requirements, in progressing a green infrastructure network.</p> <p>Policy GI9: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Objective SIO8: All development proposals shall carry out, to an appropriate level of detail, a Site Specific Flood Risk Assessment (SSFRA) that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> <li>• The Planning System and Flood Risk Management, Guidelines for Planning Authorities, Department of the Environment, Community and Local Government, November 2009, as may be revised/updated and the Strategic Flood Risk Assessment (SFRA) as prepared by this Development Plan.</li> <li>• The site-specific flood risk assessment (SSFRA) shall pay particular emphasis to residual flood risks, site-specific mitigation measures, flood-resilient design and construction, and any necessary management measures (the SFRA and Appendix B4 of the above mentioned national guidelines refer).</li> </ul> <p>Attention shall be given in the site-specific flood risk assessment to building design and creating a successful interface with the public realm through good design that addresses flood concerns but also maintains appealing functional streetscapes. All potential sources of flood risk must be addressed in the SSFRA.</p> <p>Objective SIO9: Proposals which may be classed as 'minor development', for example small-scale infill, small extensions to houses or the rebuilding of houses or paving of front gardens to existing houses, most changes of use and small-scale extensions to existing commercial and industrial enterprises in Flood Zone A or B, should be assessed in accordance with the Guidelines for Planning Authorities on the Planning System and Flood Risk Management &amp; Technical Appendices, November 2009 as may be revised/updated, with specific reference to Section 5.28 and in relation to the specific requirements of the Strategic Flood Risk Assessment. The policy shall be not to increase the risk of flooding and to ensure risk to the development is managed.</p> <p>Objective SIO10: That recommendations and flood maps arising from the Fingal-East Meath CFRAM Study, the Dodder CFRAM Study and the Eastern CFRAM Study are taken into account in relation to the preparation of statutory plans and development proposals. This will include undertaking a review of the Strategic Flood Risk Assessment for Dublin city following the publication of the Final Eastern CFRAM Study, currently being produced by the OPW.</p> <p>Objective SIO11: To work with neighbouring Local Authorities when developing cross-boundary flood management work programmes and when considering cross-boundary development.</p> <p>Objective SIO12: To ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the Dublin City Council climate change adaption policy and in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time.</p> <p>Objective SIO13: To provide additional and improved surface water networks to both reduce pollution and allow for sustainable development.</p> <p>Objective SIO14: To require that any new paving of driveways or other grassed areas is carried out in a sustainable manner so that there is no increase in storm water run-off to the drainage network.</p> <p>Objective GIO28: To identify opportunities for new tree planting to ensure continued regeneration of tree cover across the city, taking account of the context within which a tree is to be planted and planting appropriate tree species for the location.</p> <p>Objective GIO29: To encourage trees to be incorporated in (a) the provision of temporary green spaces (e.g. pop-up parks) either planted into the soil or within moveable containers as appropriate and (b) within sustainable urban drainage systems (SUDS), as appropriate.</p> <p>Policy GI14: To promote the development of soft landscaping in public open spaces, where feasible, in accordance with the principles of Sustainable Urban Drainage Systems.</p>

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Material Assets (it is the function of Irish Water to provide for water services needs)	<ul style="list-style-type: none"> <li>• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).</li> <li>• Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts).</li> <li>• Increases in waste levels.</li> </ul>	<p><b>Measures from the Draft Planning Scheme:</b></p> <p>IU 2. To require all large development proposals to include water conservation and demand management measures</p> <p>IU 5. To ensure that development is permitted in tandem with available waste water, surface water and water supply, and to manage development, so that new schemes are permitted only where adequate water supply resources exist or will become available within the life of a planning permission</p> <p>IU 9. That all proposed developments of an appropriate scale be district heating-enabled in order to provide an environmentally sustainable option for heating and cooling</p> <p>IU 10. To investigate the feasibility of providing a district heating boiler station in the eastern/industrial portion of the SDZ area.</p> <p>IU 12. That all developments will comply with the waste policy as set out in the Dublin City Development Plan 2016-2022</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes.</p> <p>Various Land Use and Phasing provisions (Chapter 9)</p> <p><b>City Development Plan Measures:</b></p> <p>Policy SI1: To support and facilitate Irish Water in the provision of high-quality drinking water, water conservation, and in the development and improvement of the water and wastewater systems to meet anticipated demands for clean and resilient water supplies and wastewater requirements for the city and region, all in accordance with the recommendations set out in the 'Greater Dublin Water Supply Strategic Study' and 'The Greater Dublin Strategic Drainage Study'.</p> <p>Policy SI2: To support and facilitate Irish Water to ensure the upgrading of wastewater infrastructure, in particular the upgrading of the Ringsend Wastewater Treatment Plant, and to support the development of the Greater Dublin Regional Wastewater Treatment Plant, the North Docklands Sewage Scheme, the Marine Outfall and orbital sewer to be located in the northern part of the Greater Dublin Area to serve the Dublin region as part of the Greater Dublin Strategic Drainage Strategy.</p> <p>Policy SI3: To ensure that development is permitted in tandem with available water supply and wastewater treatment and to manage development, so that new schemes are permitted only where adequate capacity or resources exists or will become available within the life of a planning permission.</p> <p>Policy SI19: To support the principles of good waste management and the implementation of best international practice in relation to waste management in order for Dublin city and the region to become self-reliant in terms of waste management.</p> <p>Policy SI20: To prevent and minimise waste and to encourage and support material sorting and recycling.</p> <p>Policy SI21: To minimise the amount of waste which cannot be prevented and ensure it is managed and treated without causing environmental pollution.</p> <p>Policy SI22: To ensure that effect is given as far as possible to the "polluter pays" principle.</p> <p>Objective SIO15: To provide for municipal/public recycling and recovery facilities in accessible locations throughout the city.</p> <p>Objective SIO16: To require the provision of adequately-sized recycling facilities in new commercial and large-scale residential developments, where appropriate.</p> <p>Objective SIO19: To implement the Eastern-Midlands Waste Management Plan 2015-2021 and achieve the plan targets and objectives.</p>
Air and Climatic Factors/ Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases)	<ul style="list-style-type: none"> <li>• Emissions to air including greenhouse gas emissions and other emissions.</li> </ul>	<p>Please also refer to the relevant measures under the environmental component of Water and Population and Human Health.</p> <p><b>Measures from the Draft Planning Scheme:</b></p> <p>MV1 To promote a high level of use of sustainable forms of transport including walking, cycling and public transport use having regard to the City Development Plan and national level policies.</p> <p>MV2 To provide an improved public transport services to the area including a core bus link to the City Centre via the proposed Dodder Bridge, enhanced/extended bus services along existing routes, and in the longer term, to provide for delivery of Luas to Poolbeg as part of the planned Red line extension under the National Transport Authority Strategy 2016-2035.</p> <p>MV3 To actively pursue the delivery of the Dodder (or 'Gut') bridge to facilitate the full build-out of the planning scheme in accordance with the Phasing programme as set out in the Land-Use and Phasing chapter. This bridge shall be designed to facilitate public transport and walking/cycling.</p> <p>MV4 To protect the route of the proposed Southern Port Access Route and Eastern Bypass in accordance with the objectives of Transport Infrastructure Ireland and the National Transport Authority Strategy for the Greater Dublin Area 2016-2035. As an interim measure it is proposed to provide a separate road access to the south port area via a new link located north of the existing Seán Moore Roundabout.</p> <p>MV5 To seek the upgrading of roads and junctions in the immediate vicinity of the SDZ to accommodate improved public transport priority and active</p>

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		<p>modes. These works will include new signalised junctions at the Sean Moore Road/ South Bank Road Roundabout, at the Beach Road/ Sean Moore Road junction. A new pedestrian and cycle link across the River Liffey, located immediately parallel to the East link Bridge will also be prioritised.</p> <p>MV7 To promote the development of an improved cycle network in accordance with the NTA's Cycle Network Plan, and to seek (inter alia) the following cycle connections in cooperation with the National Transport Authority:</p> <ul style="list-style-type: none"> <li>• Pigeon house Road to John Rogerson's Quay via proposed Dodder Bridge.</li> <li>• Bremen Road to Bridge Street (R802) via Ringsend Park.</li> <li>• Greenway link from Sean Moore Park to the end of Poolbeg Peninsula, integrated with the proposed coastal promenade walking/cycling route.</li> </ul> <p>The above shall link to existing and proposed primary routes including the East Coast trail along Beach Road and both the Liffey and Canal Greenway.</p> <p>MV8 To promote the redirection of port and port-related heavy traffic away from South Bank Road. This will be achieved through provision of alternative routes for such traffic and HGVs and also through traffic management, thereby ensuring a high level of amenity for those occupying non-port commercial and residential buildings.</p> <p>MV9 That all applications for urban blocks are accompanied by Travel Plans demonstrating how commuter based car use can be minimised and other sustainable modes of travel provided in accordance with best practice mobility management (see Appendix 4 of the Dublin City Development Plan)</p> <p>MV10 To provide the cycle routes (including Coastal Greenway) indicated in Figure 6.2.IU 7. To maintain good air quality in accordance with national and EU policy directives on air quality and where appropriate promote compliance with established targets</p> <p>IU 8. To minimise the adverse impacts of noise to all sensitive receptors and promote a good quality of life for the existing and future residents of the plan area, through the effective management of noise in line with the Dublin Agglomerations Noise Action Plan</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes.</p> <p>IU 15. To promote energy efficiency, energy conservation, and the increased use of renewable energy in the SDZ.</p> <p>Public Realm Aim: Connectivity and Movement:</p> <ul style="list-style-type: none"> <li>• To provide improved connectivity between the Poolbeg SDZ, its surrounding urban villages, and beyond to the city itself (see Figure 10.1).</li> <li>• To prioritise the design of the public realm for pedestrians, cyclists and public transport, to minimise the use of cars and other vehicular traffic.</li> <li>• To promote universal access for the disabled and mobility impaired to live a full life free from discrimination through the design of an 'enabling' environment.</li> <li>• To provide legible, safe connections for all ages and user groups within and through the SDZ area.</li> </ul> <p>US5 To create a distinctive and varied built environment that reinforces the urban structure, promotes a strong sense of place, minimises the impacts of overshadowing and ameliorates wind conditions.</p> <p><b>City Development Plan Measures:</b></p> <p>Policy SI24: To monitor and improve air quality in accordance with national and EU policy directives on air quality and, where appropriate, promote compliance with established targets.</p> <p>Policy SI25: To seek to preserve and maintain air and noise quality in the city in accordance with good practice and relevant legislation.</p> <p>Objective SIO20: To promote sustainable design and construction to help reduce emissions from the demolition and construction of buildings.</p> <p>Policy CC1: To prioritise measures to address climate change by way of both effective mitigation and adaptation responses in accordance with available guidance and best practice.</p> <p>Policy CC2: To mitigate the impacts of climate change through the implementation of policies that reduce energy consumption, reduce energy loss/wastage, and support the supply of energy from renewable sources.</p> <p>Policy CC3: To promote energy efficiency, energy conservation, and the increased use of renewable energy in existing and new developments.</p> <p>Policy GI9: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Policy MT2: Whilst having regard to the necessity for private car usage and the economic benefit to the city centre retail core as well as the city and national economy to continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport, and to co-operate with the NTA, Transport Infrastructure Ireland (TII) and other transport agencies in progressing an integrated set of transport objectives. Initiatives contained in the Government's 'Smarter Travel' document and in the NTA's Draft Transport Strategy are key elements of this approach.</p> <p>Objective SIO22: To maintain and manage a Dublin ambient air quality monitoring network and to make available to the public the resulting air quality</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>measurements.</p> <p>Objective SIO23: To implement the Dublin Agglomeration Environmental Noise Action Plan (2013 – 2018) in co-operation with the other local authorities in Dublin and the Irish Aviation Authority.</p> <p>Objective SIO25: To support new technologies and practices as a power source in transport to reduce noise.</p> <p>Objective SIO26: To protect residents of mixed-use developments from noise emanating from other uses such as shops, offices, nightclubs, late night busking, public houses and other night time uses through the planning system.</p> <p>Objective SIO27: To give careful consideration to the location of noise-sensitive developments, including the horizontal and vertical layout of apartment schemes, so as to ensure they are protected from major noise sources where practical.</p> <p>Objective SIO28: To support and facilitate the monitoring and enforcement by the environmental health department of noise reduction measures in areas experiencing excess noise.</p> <p>Objective SIO29: To take cognisance of the Dublin Agglomeration Environmental Noise Action Plan 2013-2018 during the development and implementation of any policies for the city and before any major planning developments commence within Dublin.</p>
Cultural Heritage	<ul style="list-style-type: none"> <li>• Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.</li> </ul>	<p><b>Measures from the Draft Planning Scheme:</b></p> <p>G11 To develop a hierarchy of inter-connected open spaces, recreation areas and green landscaped areas, via walking and cycling routes, through the SDZ and ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced LP7 Where possible, proposals for development within Block B1 of the SDZ (port lands) shall include proposals for the conservation/enhancement of the historic South Bull Wall.</p> <p><b>City Development Plan Measures:</b></p> <p>Policy CHC1: To seek the preservation of the built heritage of the city that makes a positive contribution to the character, appearance and quality of local streetscapes and the sustainable development of the city.</p> <p>Policy CHC2: To ensure that the special interest of protected structures is protected. Development will conserve and enhance Protected Structures and their curtilage and will:</p> <p>(a) Protect or, where appropriate, restore form, features and fabric which contribute to the special interest</p> <p>(b) Incorporate high standards of craftsmanship and relate sensitively to the scale, proportions, design, period and architectural detail of the original building, using traditional materials in most circumstances</p> <p>(c) Be highly sensitive to the historic fabric and special interest of the interior, including its plan form, hierarchy of spaces, structure and architectural detail, fixtures and fittings and materials</p> <p>(d) Not cause harm to the curtilage of the structure; therefore, the design, form, scale, height, proportions, siting and materials of new development should relate to and complement the special character of the protected structure</p> <p>(e) Protect architectural items of interest from damage or theft while buildings are empty or during course of works</p> <p>(f) Have regard to ecological considerations for example, protection of species such as bats. Changes of use of protected structures, which will have no detrimental impact on the special interest and are compatible with their future long-term conservation, will be promoted.</p> <p>Policy CHC4: To protect the special interest and character of all Dublin's Conservation Areas (11.1.5.4). Development within or affecting all conservation areas will contribute positively to the character and distinctiveness; and take opportunities to protect and enhance the character and appearance of the area and its setting, wherever possible.</p> <p>Enhancement opportunities may include:</p> <ol style="list-style-type: none"> <li>1. Replacement or improvement of any building, feature or element which detracts from the character of the area or its setting</li> <li>2. Re-instatement of missing architectural detail or other important features</li> <li>3. Improvement of open spaces and the wider public realm, and re-instatement of historic routes and characteristic plot patterns</li> <li>4. Contemporary architecture of exceptional design quality, which is in harmony with the Conservation Area</li> <li>5. The repair and retention of shop and pubfronts of architectural interest</li> </ol> <p>Development will not:</p> <ol style="list-style-type: none"> <li>1) Harm buildings, spaces, original street patterns or other features which contribute positively to the special interest of the conservation area</li> <li>2) Involve the loss of traditional, historic or important building forms, features, and detailing including roofscapes, shopfronts, doors, windows and other</li> </ol>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>decorative detail</p> <p>3) Introduce design details and materials, such as uPVC, aluminium and inappropriately designed or dimensioned timber windows and doors</p> <p>4) Harm the setting of a conservation area</p> <p>5) Constitute a visually obtrusive or dominant form</p> <p>Changes of use will be acceptable where, in compliance with the zoning objective, they make a positive contribution to the character, function and appearance of conservation areas and their settings. The council will consider the contribution of existing uses to the special interest of an area when assessing change of use applications and will promote compatible uses which ensure future long-term viability.</p> <p>Policy CHC5: To protect Protected Structures and preserve the character and the setting of Architectural Conservation Areas.</p> <p>The City Council will resist the total or substantial loss of:</p> <ul style="list-style-type: none"> <li>• Protected structures in all but exceptional circumstances (and will require the strongest justification, including professional input with specialist knowledge so that all options receive serious consideration).</li> <li>• Non-protected structures, which are considered to make a positive contribution to the character and appearance of an Architectural Conservation Area unless it can be demonstrated that the public benefits of the proposals outweigh the case for retention of the building. Demolition behind retained facades, may be considered on non-protected structures, depending on the significance of the structures; where it will secure the retention of facades which make a significant contribution to local townscape; where it will maintain the scale of original rooms behind principal facades and where the demolition is considered otherwise acceptable having regard to the above policy considerations. Where an existing structure is considered to make a neutral or negative contribution to an Architectural Conservation Area, the City Council will encourage:             <ol style="list-style-type: none"> <li>1. Its demolition and replacement with a high-quality building with enhanced environmental performance, or</li> <li>2. Where appropriate, its improvement, re-cladding or refurbishment to improve both its appearance and environmental performance.</li> </ol> </li> </ul> <p>In all cases, demolition will only be permitted where:</p> <ol style="list-style-type: none"> <li>1. Any replacement building will be of exceptional design quality and deliver an enhancement to the area and improvement in environmental performance on-site, taking into account whole life cycle energy costs.</li> <li>2. Firm and appropriately detailed proposals for the future re-development of the site have been approved and their implementation assured by planning condition or agreement.</li> </ol> <p>Policy CHC6: To ensure a sustainable future for historic and other buildings subject to heritage protection. The City Council will encourage and support works to upgrade the environmental performance of the existing building stock that incorporates good standards of design and appearance. Where these works involve historic buildings subject to protection (this includes buildings referenced on the Record of Protected Structures and non-protected structures in an Architectural Conservation Area), the works shall not adversely affect the special interest of the structure and thus a sensitive approach will be required, taking into account:</p> <ul style="list-style-type: none"> <li>• The significance of the structure, and</li> <li>• The extent of intervention, including impact on historic fabric, traditional construction, visibility, siting and design.</li> </ul> <p>The installation of renewable energy measures and equipment will be acceptable where sited and designed to minimise the visual impact and does not result in any significant loss of historic fabric or otherwise affect the significance of the structure.</p> <p>Policy CHC9: To protect and preserve National Monuments.</p> <ol style="list-style-type: none"> <li>1. To protect archaeological material in situ by ensuring that only minimal impact on archaeological layers is allowed, by way of the re-use of buildings, light buildings, foundation design or the omission of basements in the Zones of Archaeological Interest.</li> <li>2. That where preservation in situ is not feasible, sites of archaeological interest shall be subject to 'preservation by record' according to best practice in advance of redevelopment.</li> <li>3. That sites within Zones of Archaeological Interest will be subject to consultation with the City Archaeologist and archaeological assessment prior to a planning application being lodged.</li> <li>4. That the National Monuments Service will be consulted in assessing proposals for development which relate to Monuments and Zones of Archaeological Interest.</li> <li>5. To preserve known burial grounds and disused historic graveyards, where appropriate, to ensure that human remain are re-interred, except where otherwise agreed with the National Museum of Ireland.</li> <li>6. That in evaluating proposals for development in the vicinity of the surviving sections of the city wall that due recognition be given to their national significance and their special character.</li> <li>7. To have regard to the Shipwreck inventory maintained by the DAHG. Proposed developments that may have potential to impact on riverine, inter-tidal and sub-tidal environments shall be subject to an underwater archaeological assessment in advance of works.</li> </ol>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>8. To have regard to DAHG policy documents and guidelines relating to archaeology.</p> <p>Policy CHC10: To continue to preserve, and enhance the surviving sections of the City Wall and city defences, a National Monument, according to the recommendations of the City Walls Conservation Plan 2015, with reference to the National Policy on Town Defences, adopted by the Department of the Environment in 2008.</p> <p>Policy CHC15: To preserve, repair and retain in situ, historic elements of significance in the public realm including railings, milestones, city ward stones, street furniture, ironmongery, and any historic kerbing and setts identified in Appendices 7 and 8 of the Development Plan, and promote high standards for design, materials and workmanship in public realm improvements. Works involving such elements shall be carried out in accordance with the Department of Arts Heritage and the Gaeltacht Advice Series: Paving, the Conservation of Historic Ground Surfaces.</p>
Landscape /Amenities	<ul style="list-style-type: none"> <li>• Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks.</li> </ul>	<p><b>Measures from the Draft Planning Scheme:</b></p> <p>G11 To develop a hierarchy of inter-connected open spaces, recreation areas and green landscaped areas, via walking and cycling routes, through the SDZ and ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G14 To respect the integrity of designated nature areas and seek to achieve favourable conservation status of the habitats in these designated areas.</p> <p>G15 All developments in the SDZ should have regard to the mitigation measures set out in Environmental report.</p> <p>G16 To require that all development proposals, including internal courtyards, maximise the opportunities for ecological and biodiversity enhancement</p> <p>G17 To ensure that in new residential developments, public and communal open space is provided which is sufficient in quantity and distribution to meet the requirements of the projected population and includes play facilities for children.</p> <p>G18 To seek the development of Coastal Park, Village Green and Port Park in the SDZ area offering new amenities and recreational activities and to support the upgrade of existing parks and amenity areas adjoining the SDZ</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDS) in all developments, incorporating a sequence of SUDS techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p> <p>G110 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>G111 Any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article (3) of the Habitats Directive.</p> <p>G112 To promote environmental stewardship by managing invasive species and human-wildlife conflicts with birds' species and to improve water quality.</p> <p>Public Realm Aim: Environmental protection and enhancement:</p> <ul style="list-style-type: none"> <li>• To protect the SDZ area's existing natural reserves and amenity, and enhance its biodiversity through the creation of new parks, green infrastructural routes and corridors.</li> <li>• To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding.</li> <li>• To plant native flora to support and develop natural habitats for land/water based fauna.</li> <li>• To create green buffers between new development in the SDZ and the surrounding industrial landscape to soften their visual impact.</li> <li>• To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</li> <li>• To encourage the use of green roofs and vertical greenery on buildings where appropriate.</li> </ul> <p>US3 To distribute land uses throughout Poolbeg West site in a manner that responds to surrounding constraints, protects sensitive areas and residential amenities and creates a series of focal points for residents and workers.</p> <p>US4 To create a varied open space/green infrastructure network that protects the coastal area, integrates with Sean Moore Park and provides a series of ecological and visual connections across Poolbeg West.</p> <p>Various Public Realm and Urban Structure provisions, including those relating to height.</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p><b>City Development Plan Measures:</b></p> <p>Policy GI6: To support and implement the objectives of the National Landscape Strategy.</p> <p>Policy GI7: To continue to protect and enhance landscape, including existing green spaces through sustainable planning and design for both existing community and for future generations in accordance with the principles of the European Landscape Convention.</p> <p>Policy SC17: To protect and enhance the skyline of the inner city, and to ensure that all proposals for mid-rise and taller buildings make a positive contribution to the urban character of the city, having regard to the criteria and principles set out in chapter 15 (Guiding Principles) and Chapter 16 (development standards). In particular, all new proposals must demonstrate sensitivity to the historic city centre, the river Liffey and quays, Trinity College, the cathedrals, Dublin Castle, the historic squares and the city canals, and to established residential areas, open recreation areas and civic spaces of local and citywide importance.</p> <p>Policy SC18: To promote a co-ordinated approach to the provision of tall buildings through local area plans, strategic development zones and the strategic development and regeneration areas principles, in order to prevent visual clutter or cumulative negative visual disruption of the skyline.</p> <p>Policy GI7: To continue to protect and enhance landscape, including existing green spaces through sustainable planning and design for both existing community and for future generations in accordance with the principles of the European Landscape Convention.</p> <p>Policy GI8: To protect and enhance views and prospects which contribute to the appreciation of landscape and natural heritage.</p> <p>Policy GI17: To develop sustainable coastal, estuarine, canal and riverine recreational amenities to enhance appreciation of coastal natural assets in a manner that ensures that any adverse environmental effects are avoided, remedied or mitigated.</p> <p>Objective GIO17: To seek the continued improvement of water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city and to It is an Objective of Dublin City Council: 150 protect the ecology and wildlife of Dublin Bay.</p> <p>Objective GIO18: To protect and improve the natural character of watercourses, including the Dodder, and to promote access, walkways, cycleways and other compatible recreational uses along them, having regard to environmental sensitivities. Objective GIO19: To maintain beaches at Dollymount, Sandymount, Merrion and Poolbeg/Shelly Banks to a high standard, and to develop their recreational potential as a seaside amenity, in order to bring them to 'Blue Flag' standard subject to Article 6 Assessment of the Habitats Directive.</p>

## 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 Draft 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.

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

and targets on a *grant of permission*<sup>37</sup> basis. Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

### 10.4 Reporting

A Monitoring Report on the significant environmental effects of implementing the Planning Scheme will be prepared on an annual basis following the adoption of the Planning Scheme. This report will 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:

- Incidences of unauthorised pollution;
- Fish kills;
- Complaints from the National Parks and Wildlife Service;
- The occurrence of flood events;
- Court cases taken by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs regarding impacts upon archaeological heritage;
- Complaints received from statutory consultees regarding avoidable environmental impacts resulting from development which is granted permission under the Scheme.

<sup>37</sup> The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. By documenting this determination (e.g. whether a proposed development will impact upon water quality or whether a proposed development can be adequately served with water services) while granting permissions, or at a later date, the requirement to monitor the effects of implementing the Planning Scheme can be achieved.

**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 (Frequency)</b>
<b>Biodiversity, Flora and Fauna</b>	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Planning Scheme <sup>38</sup>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs' report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years).</li> <li>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs' National Monitoring Report for the Birds Directive under Article 12 (every 3 years).</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 10.4).</li> </ul>
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Planning Scheme	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the Planning Scheme	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 10.4).</li> </ul>
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Planning Scheme	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Planning Scheme	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 10.4).</li> </ul>
	B3ii: Number of significant impacts on the protection of listed species	B3ii: No significant impacts on the protection of listed species	
<b>Population and Human Health</b>	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Planning Scheme, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Planning Scheme	<ul style="list-style-type: none"> <li>Consultations with EPA and Health Service Executive (at monitoring evaluation - see Section 10.4).</li> </ul>
	PHH2 (and L1): Disruption to use of and access to amenities including parklands, playing fields and shore-side walks	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands, playing fields and shore-side walks	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Consultation with Parks Department (at monitoring evaluation - see Section 10.4).</li> </ul>
<b>Soil</b>	S1: Area of brownfield land available for re-use	S1: To maximise the re-use of available brownfield land	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> </ul>

<sup>38</sup> Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- no alternative solution available;
- imperative reasons of overriding public interest for the plan/project to proceed; and
- adequate compensatory measures in place.

SEA Environmental Report for the Poolbeg West SDZ Planning Scheme

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (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'	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).</li> </ul>
	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	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).</li> </ul>
	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>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> </ul>
<b>Air and Climatic Factors</b>	C1: Percentage of resident and employment populations travelling to work, school or college by public transport or non-mechanical means	C1: Maximise the percentage of the resident and employment populations travelling to work, school or college by public transport or non-mechanical means	<ul style="list-style-type: none"> <li>CSO Area Population Data (every c. 5 years).</li> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> </ul>
<b>Material Assets</b>	M1: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Planning Scheme	M1: 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	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> </ul>
	M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Planning Scheme	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Planning Scheme	<ul style="list-style-type: none"> <li>EPA The Provision and Quality of Drinking Water in Ireland reports (multi-annual).</li> <li>EPA Remedial Action List (every quarter).</li> </ul>
	M3: Total collected and brought household waste	M3: Minimise increases in and, where possible, reduce household waste generation	<ul style="list-style-type: none"> <li>EPA National Waste Reports</li> </ul>
<b>Cultural Heritage</b>	CH1: Percentage of entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and the context of the above within the surrounding landscape where relevant) - protected from significant adverse effects arising from new development granted permission under the Planning Scheme	CH1: Protect entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and their context of the above within the surrounding landscape where relevant) from significant adverse effects arising from new development granted permission under the Planning Scheme	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Consultation with Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (at monitoring evaluation - see Section 10.4).</li> </ul>
	CH2: Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Planning Scheme	CH2: Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Planning Scheme	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Consultation with Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (at monitoring evaluation - see Section 10.4).</li> </ul>
<b>Landscape</b>	PHH2 (and L1): Disruption to use of and access to amenities including parklands, playing fields and shore-side walks	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands, playing fields and shore-side walks	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).</li> <li>Consultation with Parks Department (at monitoring evaluation - see Section 10.4).</li> </ul>

## Appendix I Relationship with Legislation and Other Plans and Programmes

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

<b>European</b>				
<b>Directive/ Protocol/ Strategy/ Programme</b>	<b>High Level Aim/ Purpose/ Objective</b>	<b>Lower level objectives, actions etc.</b>	<b>Relevant legislation in Ireland</b>	<b>Relevance to the Planning Scheme</b>
UN Kyoto Protocol (2ND Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015	<p>The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions</p> <p>The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol</p> <p>At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.</p>	<ul style="list-style-type: none"> <li>The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II)</li> <li>EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP</li> </ul> <p>Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system</p>	National Policy Position and final Heads of the Climate Action and Low-Carbon Development Act	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
EU 2020 climate and energy package	<ul style="list-style-type: none"> <li>Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020</li> <li>Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels</li> <li>Aims to raise the share of EU energy consumption produced from renewable resources to 20%</li> <li>Achieve a 20% improvement in the EU's energy efficiency</li> </ul>	<p>Four pieces of complimentary legislation:</p> <ul style="list-style-type: none"> <li>Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps</li> <li>Member States have agreed national targets for non-EU ETS emissions from countries outside the EU</li> <li>Meet the national renewable energy targets of 16% for Ireland by 2020</li> <li>Preparing a legal framework for technologies in carbon capture and storage</li> </ul>	<p>The Framework for Climate Change Bill</p> <p>European Communities (Renewable Energy) Regulations 2011 (S.I. No. 147/2011)</p>	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management

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<p>Habitats Directive (92/43/EEC)</p>	<ul style="list-style-type: none"> <li>Promote the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora</li> <li>Contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora</li> <li>Maintain or restore to favourable conservation status, natural habitats and species of wild fauna and flora of Community interest</li> <li>Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Propose and protect sites of importance to habitats, plant and animal species</li> <li>Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range</li> <li>Carry out comprehensive assessment of habitat types and species present</li> <li>Establish a system of strict protection for the animal species and plant species listed in Annex IV</li> </ul>	<p>European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011)</p> <p>The Wildlife Act 1976 and the Wildlife (Amendment) Act 2000</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
<p>Birds Directive (2009/147/EC)</p>	<ul style="list-style-type: none"> <li>Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats</li> <li>Protect, manage and control these species and comply with regulations relating to their exploitation</li> <li>The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution</li> </ul>	<ul style="list-style-type: none"> <li>Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1.</li> <li>Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas); ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes</li> <li>Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance.</li> </ul>	<p>European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
<p>European Union Biodiversity Strategy to 2020</p>	<ul style="list-style-type: none"> <li>Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy</li> <li>Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible</li> </ul>	<ul style="list-style-type: none"> <li>Outlines six targets and twenty actions to aid European in halting the loss to biodiversity and eco-system services</li> <li>The six targets cover:             <ul style="list-style-type: none"> <li>Full implementation of EU nature legislation to protect biodiversity</li> <li>Maintaining, enhancing and protecting for ecosystems, and green infrastructure</li> <li>Ensuring sustainable agriculture, and forestry</li> <li>Sustainable management of fish stocks</li> <li>Reducing invasive alien species</li> <li>Addressing the global need to contribute towards averting global biodiversity loss</li> </ul> </li> </ul>	<p>Actions for Biodiversity 2011-2016 Ireland's National Biodiversity Plan, 2011</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

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<p>The Clean Air for Europe Directive (2008/50/EC)</p> <p>Fourth Daughter Directive (2004/107/EC)</p>	<ul style="list-style-type: none"> <li>The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive)</li> <li>Sets new air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives</li> <li>Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values</li> <li>Allows the possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.</li> <li>The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air</li> </ul>	<ul style="list-style-type: none"> <li>Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole</li> <li>Aims to assess the ambient air quality in Member States on the basis of common methods and criteria;</li> <li>Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and Community measures;</li> <li>Ensures that such information on ambient air quality is made available to the public;</li> <li>Aims to maintain air quality where it is good and improving it in other cases;</li> <li>Aims to promote increased cooperation between the Member States in reducing air pollution.</li> </ul>	<p>Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011)</p> <p>Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons in Ambient Air Regulations 2009 (S.I. No. 58 of 2009)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
<p>Noise Directive 2002/49/EC</p>	<p>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.</p>	<p>The Directive requires competent authorities in Member States to:</p> <ul style="list-style-type: none"> <li>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;</li> <li>Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and</li> <li>Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.</li> </ul> <p>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.</p>	<p>Environmental Noise Regulations 2006 (S.I. No. 140 of 2006)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>

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<p>Floods Directive (2007/60/EC)</p>	<ul style="list-style-type: none"> <li>Establishes a framework for the assessment and management of flood risks</li> <li>Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community</li> </ul>	<ul style="list-style-type: none"> <li>Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment</li> <li>Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3</li> <li>Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above</li> <li>Inform the public and allow the public to participate in planning process</li> </ul>	<p>European Communities (Assessment and Management of Flood Risks) Regulations (S.I. 122/2010)</p> <p>European Union (Environmental Impact Assessment) (Flood Risk) Regulations 2012 (S.I. No. 470/2012)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
<p>Water Framework Directive (2000/60/EC)</p>	<ul style="list-style-type: none"> <li>Establish a framework for the protection of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats</li> <li>Preserve and prevent the deterioration of water status and where necessary improve and maintain "good status" of water bodies</li> <li>Promote sustainable water usage</li> <li>The Water Framework Directive repealed the following Directives: <ul style="list-style-type: none"> <li>The Drinking Water Abstraction Directive</li> <li>Sampling Drinking Water Directive</li> <li>Exchange of Information on Quality of Surface Freshwater Directive</li> <li>Shellfish Directive</li> <li>Freshwater Fish Directive</li> <li>Groundwater (Dangerous Substances) Directive</li> <li>Dangerous Substances Directive</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive</li> <li>Achieve "good status" for all waters by December 2015</li> <li>Manage water bodies based on identifying and establishing river basins districts</li> <li>Involve the public and streamline legislation</li> <li>Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas</li> <li>Establish a programme of monitoring for surface water status, ground water status and protected areas</li> <li>Recover costs for water services</li> </ul>	<p>European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003) (as amended)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
<p>Groundwater Directive (2006/118/EC)</p>	<ul style="list-style-type: none"> <li>Protect, control and conserve groundwater</li> <li>Prevent the deterioration of the status of all bodies of groundwater</li> <li>Implements measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.</li> </ul>	<ul style="list-style-type: none"> <li>Meet minimum groundwater standards listed in Annex 1 of Directive</li> <li>Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II</li> </ul>	<p>European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9/2010) (as amended)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>

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<p>Drinking Water Directive (98/83/EC)</p>	<ul style="list-style-type: none"> <li>• Improve and maintain the quality of water intended for human consumption</li> <li>• Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean</li> </ul>	<ul style="list-style-type: none"> <li>• Set values applicable to water intended for human consumption for the parameters set out in Annex I</li> <li>• Set values for additional parameters not included in Annex I, where the protection of human health within national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1) (a)</li> <li>• Implement all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5</li> <li>• Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause</li> <li>• Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action</li> <li>• Undertake remedial action to restore the quality of the water where necessary to protect human health</li> <li>• Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial</li> </ul>	<p>European Union (Drinking Water) Regulations 2014 (S.I. No. 106 of 2007) (as amended)</p> <p>European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
<p>Urban Waste Water Treatment Directive (91/271/EEC)</p>	<ul style="list-style-type: none"> <li>• This Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors</li> <li>• The objective of the Directive is to protect the environment from the adverse effects of waste water discharges</li> </ul>	<ul style="list-style-type: none"> <li>• Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment</li> <li>• Annex II requires the designation of areas sensitive to eutrophication which receive water discharges</li> <li>• Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors</li> </ul>	<p>European Communities (Urban Waste Water Treatment) Regulations 2001 (S.I. No. 254/2001)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>

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<p>Environmental Liability Directive (2004/35/EC)</p>	<ul style="list-style-type: none"> <li>Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage</li> </ul>	<ul style="list-style-type: none"> <li>Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent</li> <li>Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures</li> <li>Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7.</li> <li>The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive</li> <li>The competent authority shall be entitled to initiate cost recovery proceedings against the operator</li> <li>The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met</li> </ul>	<p>European Communities (Environmental Liability) Regulations, 2008</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
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<p>SEA Directive (2001/42/EC)</p>	<ul style="list-style-type: none"> <li>• Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development</li> <li>• Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out an environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive</li> <li>• Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme</li> <li>• Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission</li> <li>• Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects</li> <li>• Inform relevant authorities and stakeholders on the decision to implement the plan or programme</li> <li>• Issue a statement to include requirements detailed in Article 9 of the Directive</li> <li>• Monitor and mitigate significant environmental effects identified by the assessment</li> </ul>	<p>European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435/ 2004) (as amended)</p> <p>Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436/2004) (as amended)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
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<p>EIA Directive (2011/92/EU as amended by 2014/52/EU)</p>	<ul style="list-style-type: none"> <li>Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment</li> <li>Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4</li> </ul>	<ul style="list-style-type: none"> <li>All projects listed in Annex I are considered as having significant effects on the environment and require an EIA</li> <li>For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III.</li> <li>The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor</li> <li>Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made</li> <li>The information to be provided by the developer in accordance with paragraph 1 shall include at least:             <ul style="list-style-type: none"> <li>a description of the project comprising information on the site, design and size of the project;</li> <li>a description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects;</li> <li>the data required to identify and assess the main effects which the project is likely to have on the environment;</li> <li>an outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects;</li> <li>a non-technical summary of the information referred to each of the above</li> </ul> </li> </ul>	<p>European Communities (Environmental Impact Assessment) Regulations 1989 (S.I. No. 349/1989) (as amended)</p> <p>European Union (Environmental Impact Assessment) (Flood Risk) Regulations 2012 (S.I. No. 470/2012)</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations</p>
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<b>National</b>				
<b>Policy/ Framework / Initiative / Strategy</b>	<b>High Level Aim/ Purpose/ Objective</b>	<b>Lower level relevant objectives , actions etc.</b>	<b>Relevant legislation</b>	<b>Relevance to the Planning Scheme</b>
Infrastructure and Capital Investment 2012-16: Medium Term Exchequer Framework	<ul style="list-style-type: none"> <li>Reviews infrastructure and capital spending over a medium timeframe to ensure investment is made in the best areas</li> <li>Identifies gaps in existing infrastructure that require addressing to aid economic recovery, social cohesion and environmental sustainability</li> </ul>	<p>The approach identifies four main components of the investment strategy as follows:</p> <ul style="list-style-type: none"> <li>Economic infrastructure – encompassing transport networks, energy provision and telecommunications capacity</li> <li>Investment in the productive sector and human capital – such as direct supports for enterprise development; science, technology and innovation advancement; supports for tourism, agriculture, fisheries and forestry; and capital investment in education infrastructure</li> <li>Environmental infrastructure – including our waste and water systems and investment for environmental sustainability</li> <li>Critical social investment – such as the health service and social housing programmes</li> </ul>	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)	<ul style="list-style-type: none"> <li>Outlines a policy for how a sustainable travel and transport system can be achieved</li> <li>Sets out five key goals: <ul style="list-style-type: none"> <li>To reduce overall travel demand.</li> <li>To maximise the efficiency of the transport network.</li> <li>To reduce reliance on fossil fuels.</li> <li>To reduce transport emissions.</li> <li>To improve accessibility to transport.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Others lower level aims include: <ul style="list-style-type: none"> <li>reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking</li> <li>improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies</li> <li>strengthening institutional arrangements to deliver the targets</li> </ul> </li> </ul>	not applicable	In combination with this Policies the Planning Schemewill contribute towards smarter travel and associated positive environmental effects.
Ireland's First National Cycle Policy Framework (2009)	<ul style="list-style-type: none"> <li>Outlines objectives and actions aimed at developing a strong cycle network in Ireland</li> <li>Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed</li> </ul>	<ul style="list-style-type: none"> <li>Sets a target where 10% of all journeys will be made by bike by 2020</li> <li>Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative</li> </ul>	not applicable	In combination with this Framework the Planning Schemewill contribute towards smarter travel and associated positive environmental effects.
Scoping Study for a National Cycle Network (NCN)	<ul style="list-style-type: none"> <li>Investigated the feasibility of developing a National Cycle Network for recreational routes in rural areas, urban areas and connecting larger urban areas</li> <li>The scoping study and subsequent workshops resulted in a recommended National Cycle Network</li> </ul>	not applicable	not applicable	In combination with this Study the Planning Schemewill contribute towards smarter travel and associated positive environmental effects.

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<p>Strategic Framework for Integrated Land use and Transport (SFILT) – Department of Transport, Tourism And Sport</p>	<ul style="list-style-type: none"> <li>• Presents the findings and conclusions of a steering group which was convened and tasked with overseeing the preparation of an integrated, evidence-based framework that would guide key land transport investment decisions.</li> </ul>	<p>Key features of the framework policy include the following:</p> <ul style="list-style-type: none"> <li>• Focus on economic growth</li> <li>• Principles to frame future investment</li> </ul>	<p>not applicable</p>	<p>In combination with this Study the Planning Schemewill contribute towards smarter travel and associated positive environmental effects.</p>
<p>National Climate Change Strategy 2007 – 2012 (2007)</p>	<ul style="list-style-type: none"> <li>• Outlines measures to be undertaken to meet greenhouse gas emission commitments</li> </ul>	<p>not applicable</p>	<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Climate Action and Low Carbon Development Act 2015</p>	<ul style="list-style-type: none"> <li>• Ireland’s national policy in response to climate change is determined, in part, by legislation.</li> </ul>	<p>In particular, Ireland’s first-ever dedicated climate change law, the Climate Action and Low Carbon Development Act 2015 , provides for the making of:</p> <ul style="list-style-type: none"> <li>• five-yearly National Mitigation Plans to specify the policy measures to reduce greenhouse gas emissions</li> <li>• a National Adaptation Framework to specify the national strategy for the application of adaptation measures in different sectors and by local authorities to reduce the vulnerability of the State to the negative effects of climate change.</li> </ul> <p>The Act also establishes the Climate Change Advisory Council to advise ministers and the government on climate change matters.</p>	<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)</p>	<ul style="list-style-type: none"> <li>• White paper setting out a framework for delivering a sustainable energy future in Ireland</li> <li>• Outlines strategic Goals for: <ul style="list-style-type: none"> <li>o Security of Supply</li> <li>o Sustainability of Energy</li> <li>o Competitiveness of Energy Supply</li> </ul> </li> </ul>	<p>The underpinning Strategic Goals are:</p> <ul style="list-style-type: none"> <li>• Ensuring that electricity supply consistently meets demand</li> <li>• Ensuring the physical security and reliability of gas supplies to Ireland</li> <li>• Enhancing the diversity of fuels used for power generation</li> <li>• Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks</li> <li>• Creating a stable attractive environment for hydrocarbon exploration and production</li> <li>• Being prepared for energy supply disruptions</li> </ul>	<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

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National Climate Change Adaptation Framework (DECLG, 2012)	The National Climate Change Adaptation Framework provides a strategic policy focus to ensure adaptation measures are taken across different sectors and levels of government to reduce Ireland's vulnerability to the negative impacts of climate change.	Actions include those relating to: <ul style="list-style-type: none"> <li>• Research and Knowledge Base</li> <li>• Governance</li> <li>• Local Plans</li> <li>• Stakeholder Consultation</li> </ul>	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
National Renewable Energy Action Plan	<ul style="list-style-type: none"> <li>• A strategic approach for Ireland including measures to meet European targets for 2020 including Ireland's 16% target of gross final consumption to come from renewables by 2020</li> </ul>	not applicable	Renewable Energy Directive 2009/28/EC	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
National Energy Efficiency Action Plan for Ireland 2007 – 2020 (2007)	<ul style="list-style-type: none"> <li>• This is the second National Energy Efficiency Action Plan for Ireland</li> </ul>	<ul style="list-style-type: none"> <li>• The Plan reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate</li> </ul>	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
Sustainable Development – A Strategy for Ireland (1997)	<ul style="list-style-type: none"> <li>• Provides an analysis and a strategic framework for sustainable development in Ireland</li> <li>• Identifies the approaches required to support sustainable development</li> </ul>	not applicable	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
Wildlife Act of 1976 Wildlife (Amendment) Act, 2000	<ul style="list-style-type: none"> <li>• The act provides protection and conservation of wild flora and fauna</li> </ul>	<ul style="list-style-type: none"> <li>• Provides protection for certain species, their habitats and important ecosystems</li> <li>• Give statutory protection to NHAs</li> <li>• Enhances wildlife species and their habitats</li> <li>• Includes more species for protection</li> </ul>	not applicable	The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation

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<p>Actions for Biodiversity 2011-2016 Ireland's National Biodiversity Plan, 2011</p>	<ul style="list-style-type: none"> <li>• Sets out strategic objectives, targets and actions to conserve and restore Ireland's biodiversity and to prevent and reduce the loss of biodiversity in Ireland and globally</li> </ul>	<ul style="list-style-type: none"> <li>• To mainstream biodiversity in the decision making process across all sectors</li> <li>• To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity</li> <li>• To increase awareness and appreciation of biodiversity and ecosystems services</li> <li>• To conserve and restore biodiversity and ecosystem services in the wider countryside</li> <li>• To conserve and restore biodiversity and ecosystem services in the marine environment</li> <li>• To expand and improve on the management of protected areas and legally protected species</li> <li>• To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services</li> </ul>	<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)</p>	<ul style="list-style-type: none"> <li>• Sets out comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process</li> <li>• Ensures flood risk is a key consideration in preparing development plans and local area plans and in the assessment of planning applications</li> <li>• Implementation of the Guidelines is through actions at national, regional, local authority and site-specific levels</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid inappropriate development in areas at risk of flooding</li> <li>• Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off</li> <li>• Ensure effective management of residual risks for development permitted in floodplains</li> <li>• Avoid unnecessary restriction of national, regional or local economic and social growth</li> <li>• Improve the understanding of flood risk among relevant stakeholders</li> <li>• Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management.</li> </ul>	<p>Planning and Development Act 2000 (as amended)</p> <p>S.I. No. 122/2010 EC (Assessment and Management of Flood Risks) Regulations 2010</p> <p>S.I. No. 470/2012 European Union (Environmental Impact Assessment) (Flood Risk) Regulations 2012.</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of these Guidelines</p>
<p>European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003)</p> <p>European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)</p>	<ul style="list-style-type: none"> <li>• Transpose the Water Framework Directive into legislation</li> <li>• Outlines the general duty of public authorities in relation to water</li> <li>• Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions</li> </ul>	<ul style="list-style-type: none"> <li>• Implements River basin districts and characterisation of RBDs and River Basin Management Plans</li> <li>• Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs</li> <li>• Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies</li> <li>• Allows the competent authority to recover the cost of damage/destruction of status of water body</li> <li>• Outlines environmental objectives and programme of measures and environmental quality standards for priority substances</li> <li>• Outlines criteria for assessment of groundwater</li> </ul>	<p>Water Framework Directive 2000/60/EC</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation</p>

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European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)	<ul style="list-style-type: none"> <li>• Transpose the requirements of the Water Framework Directive into Irish Legislation</li> </ul>	<ul style="list-style-type: none"> <li>• Outlines environmental objectives to be achieved for surface water bodies</li> <li>• Outlines surface water quality standards</li> <li>• Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality</li> </ul>	Water Framework Directive 2000/60/EC	The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation
European Communities Environmental Objectives (Groundwater) Regulations of 2010 (SI 9 of 2010)	<ul style="list-style-type: none"> <li>• Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation</li> </ul>	<ul style="list-style-type: none"> <li>• Outlines environmental objectives to be achieved for groundwater bodies of groundwater against pollution and deterioration in quality</li> <li>• Sets groundwater quality standards</li> <li>• Outlines threshold values for the classification and protection of groundwater</li> </ul>	Water Framework Directive 2000/60/EC Groundwater Directive (2006/118/EC)  European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9/2010) (as amended)	The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation
Water Pollution Acts 1977 to 1990	<ul style="list-style-type: none"> <li>• The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division</li> </ul>	<p>The Water Pollution Acts enable local authorities to:</p> <ul style="list-style-type: none"> <li>• prosecute for water pollution offences;</li> <li>• attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters;</li> <li>• issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution;</li> <li>• issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices;</li> <li>• seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects;</li> <li>• prepare water quality management plans for any waters in or adjoining their functional areas</li> </ul>	Water Services Act 2013	The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation
European Communities (Urban Waste Water Treatment) Regulations 2001 (S.I. No. 254/2001)	<ul style="list-style-type: none"> <li>• Transpose the Urban Waste Water Treatment Directive into Irish Legislation</li> <li>• Aims to protect receiving waters from environmental damage arising from Urban Wastewater</li> </ul>	<ul style="list-style-type: none"> <li>• Sets out the legislative requirements for urban waste water collection and treatment systems</li> <li>• Provides for monitoring programmes of discharges</li> <li>• Specifies threshold values and minimum standards for water quality</li> </ul>	Urban Waste Water Treatment Directive (91/271/EEC)	The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation

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<p>Water Services Act 2007</p> <p>Water Services (Amendment) Act 2012</p> <p>Water Services Act (No. 2) 2013</p>	<ul style="list-style-type: none"> <li>Provides the water services infrastructure</li> <li>Outlines the responsibilities involved in delivering and managing water services</li> <li>Identifies the authority in charge of provision of water and waste water supply</li> <li>Irish Water was given the responsibility of the provision of water and wastewater services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 Local Authorities in Ireland</li> </ul>	<p>Key strategic objectives include:</p> <ul style="list-style-type: none"> <li>Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector.</li> <li>Ensuring the provision of adequate water and sewerage services in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced.</li> <li>Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards</li> <li>Ensuring the provision of the remaining infrastructure needed to provide secondary wastewater treatment, for compliance with the requirements of the EU Urban Wastewater Treatment Directive.</li> <li>Promoting water conservation through Irish Water's Capital Investment Plan, the Rural Water Programme and other measures.</li> <li>Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems.</li> <li>Ensuring a fair funding model to deliver water services.</li> <li>Overseeing the establishment of an economic regulation function under the CER.</li> </ul>	<p>not applicable</p>	<p>The Council is obliged to comply with, as relevant and appropriate, the requirements of this legislation</p>
<p>Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan 2014-2016</p>	<ul style="list-style-type: none"> <li>This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.</li> </ul>	<p>Six strategic objectives as follows:</p> <ul style="list-style-type: none"> <li>Meet Customer Expectations.</li> <li>Ensure a Safe and Reliable Water Supply.</li> <li>Provide Effective Management of Wastewater.</li> <li>Protect and Enhance the Environment.</li> <li>Support Social and Economic Growth.</li> <li>Invest in Our Future.</li> </ul>	<p>The Water Services (No. 2) Act (2013)</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>National Spatial Strategy 2002-2020 (2002)</p>	<ul style="list-style-type: none"> <li>Planning framework for Ireland</li> <li>Aims to achieve a better balance of social, economic and physical development across Ireland, supported by effective planning</li> </ul>	<ul style="list-style-type: none"> <li>Proposes that areas of sufficient scale and critical mass will be built up through a network of gateways, hubs and key town</li> </ul>	<p>Planning and Development Act 2000 (as amended)</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

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Grid25 Implementation Programme	<ul style="list-style-type: none"> <li>Framework for the development of the electricity transmission grid in the short, medium and long terms, to support a long-term sustainable and reliable electricity supply</li> </ul>	<ul style="list-style-type: none"> <li>Seeks to implement the provisions of the 2007 Government White Paper on Energy - "Delivering a Sustainable Energy Future for Ireland" in terms of development of electricity transmission infrastructure</li> </ul>	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
National Landscape Strategy 2015	<ul style="list-style-type: none"> <li>Aims to implement the European Landscape Convention in Ireland by providing for specific measures to promote the protection, management and planning of the landscape.</li> </ul>	<p>The objectives of the National Landscape Strategy are to:</p> <ul style="list-style-type: none"> <li>Recognise landscapes in law</li> <li>Develop a National Landscape Character Assessment;</li> <li>Develop Landscape Policies;</li> <li>Increase Landscape Awareness;</li> <li>Identify Education, Research and Training Needs; and</li> <li>Strengthen Public Participation.</li> </ul>	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
National Forestry Programme 2014-2020	<ul style="list-style-type: none"> <li>Represents Ireland's proposals for 100% State aid funding for a new Forestry Programme for the period 2014 – 2020.</li> </ul>	<p>Measures include the following:</p> <ul style="list-style-type: none"> <li>Afforestation and Creation of Woodland</li> <li>NeighbourWood Scheme</li> <li>Forest Roads</li> <li>Reconstitution Scheme</li> <li>Woodland Improvement Scheme</li> <li>Native Woodland Conservation Scheme</li> <li>Knowledge Transfer and Information Actions</li> <li>Producer Groups</li> <li>Innovative Forest Technology</li> <li>Forest Genetic Reproductive Material</li> <li>Forest Management Plans</li> </ul>	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
National Peatlands Strategy (draft/in preparation)	<ul style="list-style-type: none"> <li>This Draft Strategy, prepared by the National Parks and Wildlife Service, will, when finalised, establish principles in relation to Irish peatlands in order to guide Government policy. The Draft Strategy aims to provide a framework for which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution.</li> </ul>	not applicable	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
National Biodiversity Action Plan	<ul style="list-style-type: none"> <li>This Action Plan sets out an integrated strategy for collective delivery of the potential benefits of bioenergy resources across the agriculture, enterprise, transport, environment and energy sectors.</li> </ul>	Includes detailed actions for the electricity sector, transport fuel sector, heat sector, research and development sector.	not applicable	To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management

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<p>Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme (draft/in preparation)</p>	<ul style="list-style-type: none"> <li>The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive. The Programme is being implemented through CFRAM Studies which are being undertaken for each of the six river basin districts in Ireland.</li> </ul>	<p>CFRAM Studies are being undertaken for all River Basin Districts.</p> <p>The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Maps have been published and Draft Flood Risk Management Plans are being consulted on.</p>	<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p><b>Regional, County and Local</b></p>				
<p><b>Plan / Programme / Guidelines/ Project</b></p>	<p><b>High Level Aim/ Purpose/ Objective</b></p>	<p><b>Lower level relevant objectives , actions etc.</b></p>	<p><b>Relevant legislation in Ireland</b></p>	<p><b>Relevance to the Planning Scheme</b></p>
<p>Regional Planning Guidelines for the Greater Dublin area 2010-2022 (RPGs)</p>	<ul style="list-style-type: none"> <li>Provide a long-term strategic planning framework for the development of regions</li> </ul>	<ul style="list-style-type: none"> <li>Aim to give regional effect to the National Spatial Strategy</li> <li>Guide the Development Plans and lower tier plans of planning authorities</li> </ul>	<p>Requirement of the Planning and Sustainable Development Act (2000), as amended</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Dublin City Development Plan 2016-2022</p>	<ul style="list-style-type: none"> <li>Reinforces higher level plans planning policy with the promotion of the intensification and consolidation of the City.</li> </ul>	<ul style="list-style-type: none"> <li>It seeks to achieve this by way of regeneration and renewal of the inner city and redevelopment of brownfield areas.</li> <li>It also emphasises the City's role as the national gateway and key economic driver of growth for the region and state as a whole, with the need for the city to develop sufficient critical mass to compete at an international level.</li> </ul>	<p>Requirement of the Planning and Development Act (2000), as amended</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Dublin Docklands Area 2008-2013 Master Plan</p>	<ul style="list-style-type: none"> <li>Sets out comprehensive guidance for the physical, economic and social regeneration of the entire functional area of Docklands, addressing issues such as land use transportation, infrastructure, urban design, arts, tourism and leisure.</li> </ul>	<ul style="list-style-type: none"> <li>It underscored the importance of the regeneration strategy and provides a valuable platform to renew and up-date the regeneration strategy for the SDZ lands.</li> </ul>		<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

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<p>Dublin Port Master Plan 2012-2040</p>	<ul style="list-style-type: none"> <li>The Masterplan sets out a vision for the operations of the port and land utilisation.</li> </ul>	<ul style="list-style-type: none"> <li>It acknowledges the importance of the emerging cruise liner tourism and potential of the natural amenities of Dublin Bay.</li> <li>The SDZ will ensure a synergy is created with the masterplan vision for the port lands as a significant employment hub with emerging tourism potential.</li> </ul>		<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Planning Scheme for Strategic Development Zones Grand Canal Dock, North Lotts and Grangegorman</p>	<ul style="list-style-type: none"> <li>An area of land designated by the Government to contain specified developments of economic or social importance to the State</li> <li>Aims to create sustainable communities under a master plan to facilitate the requirements by which it was acquired by the State</li> </ul>	<ul style="list-style-type: none"> <li>Development includes necessary infrastructural and community facilities and services</li> </ul>	<p>Local Government (Planning and Development) Act, 1963 (as amended)</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Development Plans including those for adjoining local authorities, Fingal, Dún Laoghaire-Rathdown, South Dublin and Counties Meath, Kildare and Wicklow</p>	<ul style="list-style-type: none"> <li>Outlines planning objectives for County/Town development over six year lifespan (including greenway and other transport objectives)</li> <li>Strategic framework for planning and sustainable development including those set out in National Spatial Strategy and Regional Planning Guidelines</li> </ul>	<ul style="list-style-type: none"> <li>Identifies future infrastructure, development and zoning required</li> <li>Protects and enhances amenities and environment</li> <li>Guides planning authority in assessing proposals</li> </ul>	<p>Requirement of the Planning and Development Act (2000), as amended</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Local Plans including Dublin LECP</p>	<ul style="list-style-type: none"> <li>Statutory documents which provide detailed planning policies to ensure proper planning and sustainable development of area</li> <li>Set out objectives for future planning and development</li> </ul>	<ul style="list-style-type: none"> <li>Identifies issues of relevance to the area and outlines principles for future development of area</li> <li>Is consistent with relevant County/Town Development Plans, National Spatial Strategy and Regional Planning Guidelines</li> </ul>	<p>Local Government (Planning and Development) Act, 1963 (as amended)</p> <p>Requirement of the Planning and Development (Amendment) Act (2010)</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Greater Dublin Area Cycle Network Plan</p> <p>Note that this Plan incorporates the Sutton to Sandycove cycleway and the parts of the National Cycle Route Network, including parts of the Draft Dublin to Galway Greenway Plan</p>	<ul style="list-style-type: none"> <li>Sets out a ten year cycling strategy for Counties Dublin, Kildare, Meath and Wicklow</li> <li>Plan to increase regions cycle network dramatically</li> <li>The Plan refers to the EuroVelo International Cycle Route Network of the European Cyclists Federation is a network of 15 long distance cycle routes connecting and uniting the whole European continent. Two of these routes are in Ireland including EV2 from Galway through Dublin to London, Berlin, Warsaw and Moscow.</li> </ul>	<p>Aims to identify and determine:</p> <ul style="list-style-type: none"> <li>The Urban Cycle Network at the Primary, Secondary and Feeder level</li> <li>The Inter-Urban Cycle Network linking the relevant sections of the Urban Network including the elements of the National Cycle Network within the Greater Dublin Area including linkages to key transport locations outside of urban areas such as airports and ports</li> <li>The Green Route Network being cycle routes for development of tourist, recreational and leisure purposes.</li> </ul>	<p>not applicable</p>	<p>The Greater Dublin Area Cycle Network Plan has been integrated into the Transport Plan.</p>

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<p>Regional &amp; County Green Infrastructure Plans/Strategies – including any relevant Waterways Ireland plans/programmes</p>	<ul style="list-style-type: none"> <li>Promotes the maintenance and improvement of green infrastructure in an area</li> <li>Aims to protect and enhance biodiversity and habitats</li> </ul>	<p>not applicable</p>	<p>not applicable</p>	<p>In combination with these plans/strategies / programmes the Transport Plan will contribute towards smarter travel and associated positive environmental effects.</p>
<p>River Basin Management Plans and associated Programmes of Measures Including Eastern CFRAMS</p>	<ul style="list-style-type: none"> <li>Establish a framework for the protection of water bodies at River Basin District (RBD) level</li> <li>Preserve, prevent the deterioration of water status and where necessary improve and maintain “good status” of water bodies in that RBD</li> <li>Promote sustainable water usage</li> </ul>	<ul style="list-style-type: none"> <li>Aims to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive</li> <li>Identifies and manages water bodies in the RBD</li> <li>Establishes a programme of measures for monitoring and improving water quality in the RBD</li> <li>Involves the public through consultations</li> </ul>	<p>Requirement of the Water Framework Directive (2000/60/EC)</p> <p>European Communities (Water Policy) Regulations, 2003 (SI No. 722) (as amended)</p> <p>Guidelines for the Establishment of River Basin District Advisory Councils (RBDAC)</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Water Quality Management Plans</p>	<ul style="list-style-type: none"> <li>Ensure that the quality of waters covered by the plan is maintained</li> <li>Maintain and improve the quantity and quality of water included in the Plan scope</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring of water bodies against quality standards</li> <li>Outlines management programmes for water catchments</li> <li>Purpose is to maintain and improve the quantity and quality of groundwater</li> </ul>	<p>Water Pollution Acts 1977 to 1990</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Management Plans for European sites</p>	<p>Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for Special Area of Conservation involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans.</p>	<p>Integrated Management Plans can be practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations and with special regard to local communities.</p>	<p>Habitats Directive</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

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<p>Greater Dublin Area Transport Strategy 2016</p> <p>Investing in our Transport Future – A Strategic Investment Framework for Land Transport</p> <p>Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)</p> <p>Ireland's First National Cycle Policy Framework (2009)</p>	<p>Outlines policies for how a sustainable travel and transport systems can be achieved</p>	<ul style="list-style-type: none"> <li>• Others lower level aims include: <ul style="list-style-type: none"> <li>○ reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment</li> <li>○ ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking</li> <li>○ improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies</li> <li>○ strengthening institutional arrangements to deliver the targets</li> </ul> </li> </ul>	<p>not applicable</p>	<p>In combination with this Policy the Planning Schemewill contribute towards smarter travel and associated positive environmental effects.</p>
<p>Outputs from the South Eastern and Shannon Catchment Flood Risk Assessment and Management Programme</p>	<ul style="list-style-type: none"> <li>• The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive. The Programme is being implemented through CFRAM Studies which are being undertaken for each of the six river basin districts in Ireland.</li> </ul>	<p>CFRAM Studies are being undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. In 2014, draft Flood Maps will be published. The final output from the studies will be CFRAM Plans, to be published in December 2016. The Plans will define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.</p>	<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Waste Management Plan for Dublin Region</p>	<p>The regional plan provides the framework for waste management for a period of six years and sets out a range of policies and actions in order to meet specified mandatory and performance targets. The strategic vision of the regional waste plan is to rethink our approach to managing waste, by viewing our waste streams as valuable material resources, leading to a healthier environment and sustainable commercial opportunities for our economy.</p>	<p>Strategic objectives:</p> <ul style="list-style-type: none"> <li>• Policy &amp; Legislation</li> <li>• Prevention</li> <li>• Resource Efficiency</li> <li>• Coordination</li> <li>• Infrastructure Planning</li> <li>• Enforcement &amp; Regulations</li> <li>• Protection</li> <li>• Other Wastes</li> </ul>	<p>European Directive (2008/98/EC) on Waste (Waste Framework Directive); Council Decision (200/532/EC) establishing a list of wastes; and Regulation (1013/2006) on the shipments of waste</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

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<p>Freshwater Pearl Mussel Basin Management Plans</p>	<ul style="list-style-type: none"> <li>Identifies the current status of the species and the reason for loss or decline</li> <li>Identifies measure required to improve or restore current status</li> </ul>	<ul style="list-style-type: none"> <li>Identifies pressures on Freshwater Pearl Mussels for each of the designated populations in Ireland</li> <li>Outlines restoration measures required to ensure favourable conservation status</li> </ul>	<p>Requirement of Water Framework Directive (2000/60/EC) and Habitats Directive (92/43/EEC) European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003) European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) The Wildlife Act 1976 and the Wildlife (Amendment) Act 2000</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Dublin City Biodiversity Action Plan</p>	<p>Biodiversity Action Plan sets out a strategy for increasing our understanding and appreciation of biodiversity in the City along with measures for enhancing the protection of this valuable resource.</p>		<p>not applicable</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
<p>Various projects provided for by the above plans and programmes including the Dublin Waste to Energy Facility project, S2S – Dollymount promenade and flood protection project, S2S – Cycleway and Footway Interim works 2013 project, North City Arterial Watermain and Clontarf Flood defenses project, Waste Water Treatment Plan Extension works at Ringsend Alexandra Basin Redevelopment Project, Dublin Eastern Bypass Project (feasibility/pre-planning etc.), Water Supply Project Eastern and Midland Region (feasibility/pre-planning etc.)</p>	<p>These projects have been provided for by higher level plans and programmes</p>	<p>These projects will contribute towards the development of the Poolbeg and surrounding area and will contribute towards environmental protection and management</p>	<p>Interactions with the various legislation detailed above</p>	<p>To cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management</p>