

## SCREENING STATEMENT FOR APPROPRIATE ASSESSMENT

## DUBLIN AIRPORT CENTRAL MASTERPLAN

March 2016





# SCREENING STATEMENT FOR APPROPRIATE ASSESSMENT PROPOSED DUBLIN AIRPORT CENTRAL MASTERPLAN

## PREPARED FOR FINGAL COUNTY COUNCIL

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## Contents

1	INTRODUCTION	. 3
1.1	Background	. 3
1.2	Aim of this Report	. 3
2	OVERVIEW OF DUBLIN AIRPORT CENTRAL MASTERPLAN LANDS	. 3
2.1	Fingal Development Plan 2011-2017	
2.2	Dublin Airport Local Area Plan 2006-2015	. 4
2.3	Proposed Dublin Airport Central Masterplan	. 4
2.4	Relationship between the proposed Dublin Airport Central Masterplan and the County	y
Dev	elopment Plan	
2.5	Overview of the Receiving Environment	. 5
3	METHODOLOGY	. 6
3.1	Formal Guidance	. 6
3.2	Sources of Information Used	. 6
4	ANALYSIS OF EUROPEAN SITES	. 7
4.1	Identification of European sites	. 7
4.2	Reasons for Designation, Site Sensitivities and Threats	
4.3	Identification of source-pathway-receptor links to European sites	
5	IDENTIFICATION OF ANY POTENTIAL LIKELY SIGNIFICANT EFFECTS	
5.1	Assessment Methodology	11
5.2	Assessment of Objectives	12
5.3	Assessment of Supporting Text	13
<b>5.3.</b> 2	1 Chapter 1: Introduction	13
5.3.2	2 Chapter 2: Planning and Transportation Policy Context	13
5.3.3	3 Chapter 3: Existing Lands and Environmental Context	13
5.3.4	•	
5.3.5	5 Chapter 5: Vision and Principles	13
5.3.6	Chapter 6: Development Strategy	14
5.3.7	7 Chapter 7: Phasing and Implementation	14
5.3.8	··	
5.4	In-combination effects	
5.5	Screening Conclusions	16
6	References	17

#### 1 INTRODUCTION

#### 1.1 Background

Proposed land use plans and proposed variations must undergo a formal "test" or "screening" to see if they would have likely significant effects on specific sites designated for their nature conservation importance. These sites are those designated under the European Commission's Natura 2000 network of sites (hereafter "European sites"<sup>1</sup>). These sites are designated on the basis of the presence of certain habitats and species that are deemed to be of international importance.

The EC Habitats and Birds Directives are the framework for the designation of these sites. The EC Habitats Directive requires the "screening" of plans and projects under Article 6(3). If the screening process results in a judgement that likely significant effects may occur or cannot be ruled out, then a more detailed 'appropriate assessment' (AA) is required. Whilst the structure of this assessment process is not laid down in law, there are guidance documents that are used to provide an indication of how this assessment may be carried out.

In order to ensure that the proposed Dublin Airport Central Masterplan (hereafter "Masterplan") complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation (Planning and Development (Amendment) Act 2010, as amended), Fingal County Council appointed Scott Cawley Ltd. to carry out the screening of the proposed Masterplan to see if it requires an AA.

#### 1.2 Aim of this Report

The aims of this report are:

- To identify the European site network within the "zone of influence" of the proposed Masterplan;
- To identify the linkages between the sensitivities of the individual European sites and the implications of the proposed Masterplan;
- To determine if the implementation of the proposed Masterplan could result in likely significant effects on the European sites (i.e. screening) in isolation and in combination with other plans and projects.

#### 2 OVERVIEW OF DUBLIN AIRPORT CENTRAL MASTERPLAN LANDS

#### 2.1 Fingal Development Plan 2011-2017

The County Development Plan was adopted in 2011 and was implemented within the planning hierarchy beneath the National Spatial Strategy and Regional Planning Guidelines. It was subject to an AA in accordance with the EC Habitats Directive. The Development Plan sets out Fingal County

<sup>&</sup>lt;sup>1</sup> Natura 2000 sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats. In Ireland these sites are designed as *European sites* - defined under the Planning Acts and/or Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

Council's policies, objectives and land use zonings for the development of the County over the Plan period. The Plan seeks to secure the development and improvement in a sustainable manner of the economic, environmental, cultural and social assets of the County.

In the Development Plan the proposed Masterplan lands Are zoned as: "'HT' High Technology -Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment".

The lands are subject to map based Local Objective 378 which seeks to "Consider within the context of the Masterplan, the nature and scale of appropriate HT uses and enterprise centre related to aviation and airport business, research and development associated with airports or aviation and Air Transport Infrastructure, having regard to the site's strategic location within the Dublin Airport Authority Lands."

#### 2.2 Dublin Airport Local Area Plan 2006-2015

The Dublin Airport Local Area Plan (LAP) was adopted in 2006. The lifetime of the LAP was extended by three years in 2012 to cover up to June 2015. The LAP has now expired and therefore is no longer applicable to the Dublin Airport area, however, Fingal County Council intends to prepare a new LAP for the airport and all associated lands.

Through the adoption of the Fingal Development Plan 2011-2017 land use zonings and local objectives as outlined in the development plan have superseded those outlined in the extant LAP. These establish the Masterplan as the framework for future development within the subject lands.

### 2.3 Proposed Dublin Airport Central Masterplan

The proposed Masterplan is a framework for the future development of two parcels of land, Zone 1 and Zone 2, located adjacent to Dublin Airport. The proposed Masterplan specifically focuses on the development of Phase 1 and Phase 2 of Zone 1 for high quality, high value office accommodation supplemented with ancillary uses. It outlines key guiding principles to guide the development framework for the masterplan area including; urban design and quality space making, movement and circulation, economic conditions, and environmental and building sustainability. The lands are zoned in the Fingal Development Plan 2011-2017, and are subject to Local Objective 378, see section 2.1 above.

## 2.4 Relationship between the proposed Dublin Airport Central Masterplan and the County **Development Plan.**

The proposed Masterplan will sit under the Development Plan and therefore will be implemented alongside policies and objectives contained therein. The current Development Plan and subsequent variations have undergone AA and were not deemed to pose any likely significant effects on any Europeans sites and/or no adverse impacts to European site integrity as a result of implementation of the plans either alone or in combination with other plans/project.

In the Development Plan the proposed Masterplan lands are zoned as: "'HT' High Technology -Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment".

The lands are subject to map based Local Objective 378 which seeks to "Consider within the context of the Masterplan, the nature and scale of appropriate HT uses and enterprise centre related to aviation and airport business, research and development associated with airports or aviation and Air Transport Infrastructure, having regard to the site's strategic location within the Dublin Airport Authority Lands."

The County Development Plan contains several maps that identify areas of ecological importance (designated areas, ecological buffer zones, nature protection areas, sensitive habitats) and also maps showing green infrastructure in the County. Sheet 11 of the County Development Plan (Green Infrastructure) does not identify any green infrastructure features within or in the immediate vicinity of the Masterplan lands. The lands are identified as being located partially in the 'Outer Public Safety Zone'. It also identifies surrounding lands to the north and east as 'Protect and provide for Greenbelt'.

This is relevant to the AA process as the EC Habitats Directive Article 10 and the Habitats Regulations 2011 place a high degree of importance on such non-European site areas as features that connect the European site network.

#### 2.5 Overview of the Receiving Environment

The masterplan lands are located in Dublin Airport, Co. Dublin. They are bounded to the north by Corballis Road North and Corballis Drive to the south. The existing multi-storey Terminal 2 short-term car park building is located to the west of the Masterplan lands and the Aer Lingus Hangar is located to the north. Other buildings associated with the airport are located to the east and south. The lands are comprised primarily of buildings and artificial surfaces Other habitats on the lands include amenity grassland, scattered trees and parkland, some small patches of recolonising bare ground and linear patches of broadleaved woodland and conifer/broadleaved woodland.

The immediate surrounding area is heavily built up as a consequence of activities associated with Dublin Airport. The site is immediately surrounded by areas of hard standing, which include access roads and buildings associated with activities at Dublin Airport. Forrest Little Golf Club is located c. 1km north-west of the proposed development site, while the M1 Motorway is located c. 1.3km east. In the greater area beyond Dublin Airport, there are agricultural fields, hedgerows and treelines.

The desktop study found no records of any species or habitats for which European sites listed in Table 1 are designated within the subject lands or environs. Herring Gull (*Larus argentatus*), for which Ireland's Eye SPA (004117) and Lambay Island SPA (004069) are designated, was recorded *c.* 120m west of the proposed development site in Dublin Airport (2011)<sup>2</sup>.

The proposed development site is located within the Mayne-Santry-Coastal river catchment. According to the EPA Envision Map Viewer<sup>3</sup>, the Cuckoo Stream is located *c*. 580m south of the subject lands. It flows in a south-easterly direction for *c*. 5.6km downstream of the subject lands until it converges with the River Mayne. From there, the River Mayne flows for *c*. 2.1km on into the Mayne Estuary transitional waterbody (Baldoyle Bay). According to the EPA Envision Map Viewer the water quality of the Cuckoo Stream is currently unknown, however water quality monitoring by the DAA classifies it as 'seriously polluted'. The water quality of the River Mayne is classified as 'Poor' (i.e. Q2-3, Q3), as recorded at the Hole-in-the-wall Road Bridge monitoring station, located *c*. 100m downstream of the confluence of the Cuckoo Stream and the River Mayne. The water quality of the Mayne Estuary transitional waterbody is classified as 'Eutrophic'. Kealy's Stream drains lands

<sup>&</sup>lt;sup>2</sup> According to NBDC online data <u>www.biodiversityireland.ie</u> accessed 13<sup>th</sup> January 2016.

<sup>&</sup>lt;sup>3</sup> http://gis.epa.ie/Envision accessed 13th January 2016

located within Dublin Airport. Kealy's Stream, which is culverted beneath the airport, re-surfaces to the east of the subject lands, just north of Kealy's Pub (west of the R132). Water quality monitoring by the DAA classifies Kealy's Stream as 'seriously polluted'. It converges with the Sluice River (water quality unknown) downstream of the subject lands and discharges to the Mayne Estuary.

Foul effluent generated in the area is currently pumped to Ringsend Wastewater Treatment Works (WWTW) via the existing North Fringe Sewer, which is located south of Dublin Airport. This is treated prior to discharge to Dublin Bay. According to the EPA Envision Map Viewer Dublin Bay's coastal waters are 'Unpolluted'. Under the 'Trophic Status Assessment Scheme' classification of the EPA, 'Unpolluted' means there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present (EPA, 2015). The most recent available water quality data for the Irish Sea indicates it is 'Unpolluted'.

#### 3 **METHODOLOGY**

#### 3.1 Formal Guidance

The Screening stage has taken account of guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 revision).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000, updated April 2015); hereafter referred to as MN2000.
- Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007).
- Guidelines for Good Practice Appropriate Assessment of Plans Under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011)

#### 3.2 Sources of Information Used

Information relied upon included the following information sources, which included maps, ecological and water quality data:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie;
- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie;
- Information on water quality in the area available from <a href="www.epa.ie">www.epa.ie</a>;
- Information on the Eastern River Basin District from www.wfdireland.ie;

- Information on soils, geology and hydrogeology in the area available from www.gsi.ie;
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2013a and 2013b);
- Information on Special Conservation Interests for SPAs in Ireland from Irelands Article 12 submission to the EU Commission on the Status and trends of bird species 2008-2012;
- Information on the conservation status of birds in Ireland (Colhoun & Cummins, 2013);
- Fingal Development Plan 2011-2017;
- Fingal Development Plan 2011 2017 Natura Impact Statement; and
- Knowledge of the lands from previous field work carried out in the area.

## 3.3 Screening Steps

Best practice in AA Screening promotes a site-led approach to the process. The site-led approach puts the environmental conditions that maintain site integrity first. So the first steps in the screening stage are identifying the European sites within the "zone of influence" of the Plan and then collecting as much information as possible on the "Qualifying Interests" or "Special Conservation Interests" and how site integrity may be defined for each European site. The site-led approach focuses on how the site integrity can be maintained by avoiding impacts on key environmental conditions. This approach allows issues such as cumulative impacts to be identified.

Current guidance on the zone of influence to be considered during the AA process states the following:

"A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects".

The site-led approach is summarised as follows:

- 1. Which European sites lie within a 15km buffer zone?
- 2. What are the Qualifying Interests/Special Conservation Interests for each Europeam site?
- 3. What are the underpinning ecological and environmental conditions to maintain these Qualifying Interests at Favourable Conservation Status?
- 4. What are the threats actual or potential that could affect the underpinning factors?
- 5. Are there aspects of the proposed Masterplan that could give rise to these threats?

If, based upon the currently available information, there are aspects of the proposed Masterplan that could affect the European sites then they will require further analysis in the form of a Stage 2: Appropriate Assessment (production of a NIR and the process of Appropriate Assessment).

## 4 ANALYSIS OF EUROPEAN SITES

### 4.1 Identification of European sites

In accordance with the Department of Environment, Heritage and Local Government guidance (DoEHLG, 2010), an initial distance of 15km from the proposed Masterplan was selected for consideration of European sites. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the implementation of the Masterplan on European sites.

Spatial boundary data on the European sites was referenced against the boundaries presented on the NPWS website on 12<sup>th</sup> January 2016. All European sites which fall within 15km of the Masterplan lands are listed in Table 1 below, and presented in Figure 1.

Table 1 European Sites within 15km of the proposed Masterplan				
Special Areas of Conservation	Special Protection Areas			
Malahide Estuary	Malahide Estuary			
Baldoyle Bay	Baldoyle Bay			
North Dublin Bay	North Bull Island			
Rogerstown Estuary	Rogerstown Estuary			
South Dublin Bay	South Dublin Bay and River Tolka Estuary			
Howth Head	Howth Head Coast			
Ireland's Eye	Irelands Eye			
Lambay Island	Lambay Island			
Rockabill to Dalkey Island				

Skerries Islands SF Rockabill to Dalkey Island 15km Rogerstown Estuary Rogerstown Estuar Lambay Island Malahide Estua 5km Ireland's Eye Baldoyle Bay Baldoyle Ba Ireland's E rth Bull Island North Dublin Carton Rye Water Valley South Dublin Bayland River Tolka Estuary Dalkey Islands Rockabill to Dalkey Island Glenasmole Valley Wicklow, Mountains 150094/01 Legend Dublin Airport Masterplan AA Screening Masterplan Area Fingal County Council 150094 1:200,000 @ A4 Special Protection Area (SPA) 00 12/01/2016 Special Area of Conservation (SAC) Scott Ca Way Line,
Collage House,
Rock Road,
Blackrock,
Co. Dublin,
letted
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Figure 1. All European sites within 15km of the site

#### 4.2 Reasons for Designation, Site Sensitivities and Threats

In order to identify those sites that could be potentially affected, it was necessary to describe the European site in the context of why it has been designated (i.e. its "Qualifying Interests") and the environmental and ecological conditions that maintain the condition of these features. The Qualifying Interests and threats to the sites were extracted from the NPWS website database<sup>4</sup> and Status of EU Protected Habitats and Species in Ireland (NPWS, 2013a and 2013b).

The results of this desktop exercise are presented in Appendix 1, Table 1A. This table lists each European Site within 15km of the Masterplan lands, qualifying interests (QIs)/special conservation interests (SCIs) for European Sites, key environmental conditions supporting each QI/SCI and key threats to each QI/SCI. The key threats to QI/SCI species are summarized in Appendix 1, Table 1B.

The key output of this stage was the identification of the types of threats to the integrity of the European sites. These can then be related to the consequences of implementing the proposed Masterplan to see if there is a risk of any likely significant effects. These generic threats do not take account of specific sensitivities at each European site.

## 4.3 Identification of source-pathway-receptor links to European sites

For likely significant effects to arise, there must be a risk enabled by having a 'source' (e.g. construction works at a proposed development site), a 'receptor' (e.g. a SAC), and a 'pathway' between the source and the receptor (e.g. a watercourse connecting a proposed development site to a SAC). The identification of a pathway does not automatically mean significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. duration of construction works), the characteristics of the pathway (e.g. water quality status of watercourse receiving run-off from construction) and the characteristics of the receptor (e.g. the ecology including conservation status of the SAC reason for designation). Information on the receiving environment was used to identify any such pathways.

The key output of this stage was to identify the European sites with a pathway for potential likely significant effects between the proposed Masterplan and the European site, taking into account the Conservation Objectives of the site and the receiving environment, which made them relevant to the AA process. As stated, identification of a pathway does not automatically mean significant effect will arise, but aids in assessing the relevant sections of the proposed Masterplan in Section 5. The results are presented in Appendix 1, Table 1C. In summary, potential pathways between the Masterplan and the following European sites were identified:

### SACs:

- Baldoyle Bay SAC;
- North Dublin Bay SAC; and
- South Dublin Bay SAC.

#### SPAs:

- Baldoyle Bay SPA;
- North Bull Island SPA; and
- South Dublin Bay and River Tolka Estuary SPA.

These pathways were by virtue of:

www.npws.ie Accessed 12/01/2016

- surface water run-off to watercourses, either the River Mayne or Sluice, discharging to Baldoyle Bay; and
- treated foul effluent discharge from Ringsend WWTW to Dublin Bay.

#### 5 IDENTIFICATION OF ANY POTENTIAL LIKELY SIGNIFICANT EFFECTS

#### 5.1 Assessment Methodology

The proposed Masterplan consists of seven Chapters and Appendices. The main text includes Maps and Figures. All of the proposed Masterplan has been assessed both in isolation and in combination with other Plans and projects that could influence the same geographic area or European sites.

The assessment first focused on the Objectives within the Masterplan and then examined the supporting text that is used to provide the background and clarification to the Objectives.

The Sections of the proposed Masterplan include:

Chapter 1: Introduction

Chapter 2: Planning and Transportation Policy Context

Chapter 3: Existing Lands and Environmental Context

Chapter 4: Economic Context

Chapter 5: Vision and Principles

Chapter 6: Development Strategy

Chapter 7: Phasing and Implementation

There are 44 Objectives that have been assessed both in isolation and in combination with the other Objectives.

Each objective was taken in turn and compared against the attributes and targets (see Appendix 1, Table 1D) for each of the Conservation Objectives for the European sites within the zone of influence of proposed Masterplan. This helped to identify if there was a likelihood of significant effects on any European sites. The following criteria were used to assess the potential for likely significant effects:

- **Direct Habitat Loss within European site** (e.g. roads and other development occurring on undeveloped sites, coastal protection works).
- Indirect effects on the ecological networks supporting European sites (e.g. roads and other linear developments forming barriers to movements of mobile species or loss of sites that support an overall population of species).
- Indirect threat to quality including changes to surface and ground water quality and volumes, air quality (E.g. wastewater treatment plants, septic tanks, changes to agricultural drainage, changes to flood regime)
- **Direct/indirect disturbance of sensitive habitats/species (**E.g. recreation at coastal sites, riverside walkways etc).
- **Direct/Indirect threats to European sites by invasive species.** (E.g. landscaping, forestry, urbanisation).

The results of the assessment of the Objectives are provided in Appendix 1, Table 1E.

The assessment of the supporting text followed a similar approach to judge as to whether the interpretation and implementation of the text could result in likely significant effects on European sites. Section 5.3 provides the results of the assessment of supporting text for each chapter.

#### 5.2 Assessment of Objectives

Table 1E (in Appendix 1) presents the results of the assessment of each individual Objective. It was important to consider the potential effect of the Objective in isolation and also assuming that all Objectives are implemented as in several cases there were Objectives that addressed potential likely significant effects in others.

Positive impacts were noted in several cases which will have the overall effect of minimizing greenhouse gas emissions, protecting air quality, water supply, coastal and surface water quality. Many objectives simply had no reasonable linkage between the consequences of their implementation and the potential for likely significant effects on the European Sites in terms of impacts on the Conservation Objectives.

The following Objectives will directly act to avoid likely significant effects on European Sites:

- Objective UT7: To provide a holding tank of an agreed volume at the existing Pumping Station on the R132 road.
- Objective UT8: To liaise and work with Irish Water to ensure that there is adequate capacity within the wastewater collection and treatment system to cater for the proposed development.
- Objective UT9: To require that development within the Masterplan lands incorporate SUDS (Sustainable Drainage Systems) in the surface water design in line with the GDSDS (Greater Dublin Strategic Drainage Study) Regional Drainage Policies, 2005, Volume 2 New Development and Volume 3 Environmental Management.
- Objective UT10: To require the provision of additional SuDS devices to cater for the development of the Masterplan lands in line with previous agreements in relation to runoff rates for new and redeveloped sites.
- Objective UT11: Ensure a Construction Management Plan (CMP) is produced as part of any planning application detailing how surface water run-off, especially in relation to release of silt and other pollutants, will be controlled during construction.
- Objective FL1: To require that new development should not itself be subject to an inappropriate risk of flooding nor should it cause or exacerbate such a risk at other locations.
- Objective EH1: Ensure that green infrastructure and landscape design proposals associated with proposals for development do not lead to the introduction or spread of invasive species.
- Objective EH2: All proposed development will be subject to Appropriate Assessment Screening and/or Natura Impact Statement, whichever is deemed relevant, to ensure no significant adverse effects on the integrity of any European sites either in isolation or incombination with other plans and projects, having regard to their conservation objectives.
- Objective WQ1: To ensure adequate protection of waterbodies adjacent the Masterplan area with the objective of contributing to the improvement in the water quality of these waterbodies as identified in the Water Framework Directive.
- Objective AQ1: To ensure no significant degradation in the air quality of the Masterplan or surrounding environment.

In some cases, the implementation of the objective is open to interpretation at the project-level and the nature of the likely significant effect arising is dependent on the location of the proposal. Therefore, whilst it was not possible to predict at the strategic-level, in such cases it would be reasonable to apply AA at the lower levels of planning so that the project could be designed taking into account the potential likely significant effects. In such cases it was assumed with a high level of confidence that mitigation measures could be applied when carrying out a project-level AA to address likely significant effects on European Sites.

The result of the assessment was that all of the objectives were not regarded to give rise to likely significant effects on European Sites.

#### 5.3 Assessment of Supporting Text

#### 5.3.1 **Chapter 1: Introduction**

This Chapter does not include any proposals that themselves pose likely significant effects on European sites. It sets out the context for the Masterplan in the local planning hierarchy.

#### 5.3.2 **Chapter 2: Planning and Transportation Policy Context**

This Chapter does not include any proposals that themselves pose likely significant effects on European sites. It sets out the context for the statutory planning and transportation policy for the lands already proposed by relevant national, regional and local level strategies, policies and plans.

#### 5.3.3 **Chapter 3: Existing Lands and Environmental Context**

- This Chapter describes the baseline receiving environment of the Masterplan lands in terms of the physical, infrastructural and environmental context. The following text in isolation has the potential to pose likely significant effects on European sites:
  - Section 3.3.2.... "However, the wider existing North Fringe sewer system that this rising main feeds into is at or nearing capacity and is required to be upgraded in the short to medium terms".
  - Section 3.3.3.... "The attenuation tank is operating close to or at capacity".

However, none of the supporting text represent sources of likely significant effects on European sites that are not addressed either by previous assessments (e.g. for the County Development Plan) of by the proposed Masterplan objectives, in particular Objectives UT6, UT7 & UT8 assessed in Section 5.2 above. When implemented in combination with the Objectives of the Masterplan the overall result is neutral.

#### 5.3.4 **Chapter 4: Economic Context**

This Chapter does not include any proposals that themselves pose likely significant effects on European sites. It sets out the economic context, arising from economic analysis, for the Masterplan lands given their unique location within Dublin Airport.

#### 5.3.5 **Chapter 5: Vision and Principles**

- The following text is deemed to provide positive impacts on surface water quality, not necessarily in response to potential likely significant effects on European sites:
  - 5.1.3.....(in reference to the Green Lung) "This interconnected system of spaces is also the opportunity for sustainable stormwater management and biodiversity".

- Section 5.4 Sustainability Principles is deemed to provide positive impacts in relation to greenhouse gas emission rates through ensuring energy efficiency.
- The following text in isolation has the potential to pose likely significant effects on European sites, specifically in relation to wind energy, e.g wind turbines and bird strike for Special Conservation Interest bird species for the Special Protection Areas.
  - 5.4....."New development proposals will be required to demonstrate reduced energy consumption in their design and construction and should incorporate where possible alternative energy technologies such as bio-energy, solar energy, heat pumps, heat recovery and wind energy".

However, none of the supporting text represent sources of likely significant effects on European sites that are not addressed either by previous assessments (e.g. for the County Development Plan) of by the proposed Masterplan objectives assessed in Section 5.2 above. Given the nature of the site, with airport actively discouraging birds from utilizing the area, and landscaping proposals to ensure prevention of birds hazard and in relation to Appropriate Assessment of development proposals at project level as a matter of law, when implemented in combination with the Objectives of the Masterplan the overall result is neutral.

#### 5.3.6 **Chapter 6: Development Strategy**

None of the supporting text represent sources of impacts on the European sites that are not addressed either by previous assessments (e.g. for the FDP) or by the proposed Masterplan Objectives assessed in Section 5.2 above.

#### 5.3.7 **Chapter 7: Phasing and Implementation**

- The following text is deemed to provide positive impacts on surface and coastal water quality, not necessarily in response to potential likely significant effects on European sites:
  - o 7.1..... "The provision of office development will be planned to coincide with predicted demand levels as determined by the occupation of the completed building forms and by specific infrastructural requirements particularly those associated with the surrounding road network and water services infrastructure. This process will be managed and monitored through the development management process as planning applications for elements of the scheme are assessed, and in consultation with key stakeholders.

This is supported by Masterplan Objectives that also address this topic; Objective UT1, UT5, UT6, UT7 & UT8.

#### 5.3.8 **Appendix A: Landscaped Public Realm**

- Vegetation, Planting and Character.....
  - The following text is deemed to provide positive impacts by reducing the risk of bird mortality via airstrike:
    - "Importantly the trees species recommended for use in the public realm will not attract birds and have been used at other airport locations".
    - "All landscaping proposals for the development will undergo specific assessment prior to planning application stage to determine precise detail in respect of species, typology, quantum and location, to ensure the prevention of bird hazard"
- Planting Guidance and Typical Species.....
  - Ornamental trees, native trees, shrubs and grasses are proposed. There is the potential for non-native invasive species to be introduced to the local surface water network via landscape planting. However, none of the supporting text represent

sources of potential likely significant effects on European sites that are not addressed either by previous assessments or by the proposed Masterplan objectives assessed in Section 5.2 above. In particular, Objective EH1 of the proposed Masterplan addresses the potential introduction and/or spread of invasive species. Objective GI16 of the Fingal Development Plan relates specifically green infrastructure and ensuring that it does not lead to spread of invasive species, as well as Objective BD10 to ensure development proposals do not lead to the spread of invasive species, in particular, that they do not form part of landscape design proposals for proposed developments. When implemented in combination with the Objectives of the Development Plan and of the Masterplan the overall result is neutral.

## Surface materials.....

The following text is deemed to provide positive impacts on surface and coastal water quality, not necessarily in response to potential likely significant effects on European sites:

Percentages of permeable paving shall be in the following ranges:

- Plazas in the building clusters: 70% of permeable concrete;
- In the Green Lung: 100% of stabilized gravel;
- Along the access streets: permeable paved car park lanes and pavements;
- Transition Square: 0% (as 100% shall be constructed by a high quality pavement, smooth surface).
- Stormwater Management and Stormwater Integration.....
  - The text in these sections is deemed to provide positive impacts on surface and coastal water quality by integration SuDS features into the design of future development, not necessarily in response to potential likely significant effects on European sites.

#### 5.4 In-combination effects

The following have been considered for in-combination effects:

- Fingal Development Plan 2011-2017;
- **Dublin City Development Plan;**
- Eastern River Basin Management Plan;
- Mayne River Water Management Unit;
- FEMFRAMS;
- The Greater Dublin Drainage Initiative;
- National Aviation Policy 2015;
- Smarter Travel: A Sustainable Transport Future 2009-2020;
- Investing in our Transport Future: A Strategic Framework for Investment in Land Transport,
- Greater Dublin Area: Draft Transportation Strategy 2011-2030;
- Regional Planning Guidelines for the Greater Dublin Area 2010-2022;
- Fingal/North Dublin Transport Study: Stage 2 Appraisal Report 2015;
- National Spatial Strategy 2002-2020.

The proposed Masterplan does not increase the amount of zoned land, or significantly alter the appropriate uses identified in the Fingal Development Plan. All elements of the proposed Masterplan have been individually been screened out above. Once the environmental protection measures within the existing development plan, which was subject to an Appropriate Assessment, together with the protective objectives of the proposed Masterplan are followed, adhered to and implemented, it is predicted that the proposed Masterplan will not give rise to in-combination effects.

#### 5.5 Screening Conclusions

Following an analysis of the proposed Dublin Airport Central Masterplan and potential relationships with European sites within the zone of influence, it was concluded that there would be no likelihood of significant effects on any European sites either alone or in combination with other plans or projects. This was informed by the collection of best available scientific data on the European sites and identification of the condition, sensitivities and threats to the integrity of the sites and QIs/SCIs therein. This was also informed by:

- The emphasis placed on the use of Green Infrastructure particularly in relation to use of SuDS within the Masterplan lands;
- The emphasis placed on protecting and improving the water quality of waterbodies adjacent to the Masterplan lands;
- The emphasis placed on the protection of European sites in both the Fingal Development Plan 2011-2017, which includes a number of commitments and objectives to protect European sites, and the Masterplan which and will ensure Appropriate Assessment Screening at project level:
  - Objective AA1 of the Fingal Development Plan: Ensure that all plans and projects in the county that could, either individually or incombination with other plans and projects, have a significant effect on a Natura 2000 site (or sites) will be subject to Appropriate Assessment Screening".
  - Objective EH2 of the Masterplan to: "All proposed development will be subject to Appropriate Assessment Screening and/or Natura Impact Statement, whichever is deemed relevant, to ensure no significant adverse effects on the integrity of any European sites either in isolation or in-combination with other plans and projects, having regard to their conservation objectives".

Therefore, it was our view that an Appropriate Assessment was not required.

#### 6 References

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## Appendix 1

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
Special Areas of	Conservation (SACs)			
Rogerstown Estuary SAC (000208)	Annex I habitats for which the sites is designated:  • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Salicornia and other annuals colonizing mud and sand [1310] • Atlantic salt meadows Glauco-Puccinellietalia maritimae [1330] • Mediterranean salt meadows Juncetalia maritimi [1410] • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] • *Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Estuaries – Unfavourable - Inadequate     Mudflats and sandflats not covered by seawater at low tide –Unfavourable - Inadequate     Salicornia and other annuals colonizing mud and sand – Unfavourable -Inadequate     Spartina swards – Unfavourable - Inadequate     Atlantic salt meadows – Unfavourable - Inadequate     Mediterranean salt meadows –Unfavourable - Inadequate     Shifting dunes along the shoreline – Unfavourable - inadequate     Fixed coastal dunes – Unfavourable - bad	To maintain the favourable conservation condition of the following in Rogerstown Estuary SAC:  • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Salicornia and other annuals colonizing mud and sand • Mediterranean salt meadow  To restore the favourable conservation condition of the following in Rogerstown Estuary SAC:  • Atlantic salt meadows • Shifting dunes along the sho reline • *Fixed coastal dunes with he rbaceous vegetation	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Surface and ground water quality</li> <li>Appropriate levels of disturbance</li> <li>Water levels</li> <li>Appropriate disturbance levels</li> <li>Tidal currents</li> <li>Wind energy</li> <li>Erosion / deposition levels</li> <li>Recreational activities</li> <li>Trampling overuse</li> </ul>

<sup>&</sup>lt;sup>5</sup> Sourced from Status of EU Protected Habitats and Species in Ireland (NPWS, 2013). <sup>6</sup> Sourced from Site Conservation Objectives (<u>www.npws.ie</u> accessed 13/01/16)

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
Malahide Estuary SAC (000205)	Annex I habitats for which the sites is designated:  • Mudflats and sandflats not covered by seawater at low tide [1140] • Salicornia and other annuals colonizing mud and sand [1310] • Spartina swards Spartinion maritimae [1320] • Atlantic salt meadows Glauco-Puccinellietalia maritimae [1330] • Mediterranean salt meadows Juncetalia maritimi [1410] • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] • *Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Mudflats and sandflats not covered by seawater at low tide –     Unfavourable/Inadequate     Salicornia and other annuals colonizing mud and sand –     Unfavourable/Inadequate     Spartina swards – N/A     Atlantic salt meadows –     Unfavourable/Inadequate     Mediterranean salt meadows –     Unfavourable/Inadequate     Shifting dunes along the shoreline – Unfavourable/Inadequate     Fixed coastal dunes –     Unfavourable/Bad	To maintain the favourable conservation condition of the following in Malahide Estuary SAC:  • Mudflats and sandflats not covered by seawater at low tide  • Salicornia and other annuals colonizing mud and sand  • Mediterranean salt meadow  To restore the favourable conservation condition of the following in Malahide Estuary SAC:  • Atlantic salt meadows  • Shifting dunes along the sho reline  • Fixed coastal dunes with her baceous vegetation	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Railway viaduct</li> <li>Appropriate agricultural practices including grazing pressures.</li> <li>Surface and ground water quality</li> <li>Appropriate levels of disturbance</li> <li>Water levels</li> <li>Air quality</li> <li>Tidal currents</li> <li>Erosion and deposition rates</li> <li>Recreational activities</li> <li>Trampling overuse</li> </ul>
Rockabill to Dalkey Island SAC	Annex I habitats for which the sites is designated:  • Reefs [1170]	<ul> <li>Reefs [1170] -         Unfavourable/Bad</li> <li>Harbour porpoise Phocaena         phocaena [1170] -         Favourable</li> </ul>	To maintain the favourable conservation condition of the following in Rockabill to Dalkey Island SAC:  • Reefs	<ul> <li>Tidal currents</li> <li>Direct disturbance to habitats</li> <li>Prey abundance</li> <li>Water quality</li> <li>Disturbance/noise</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
	<ul><li>sites is designated:</li><li>Harbour porpoise <i>Phocaena</i> phocaena [1170]</li></ul>		Harbour porpoise	
Lambay Island SAC (000204)	Annex I habitats for which the site is designated:  Reefs [1170]  Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]  Annex II species for which the sites is designated:  Grey seal Halichoerus grypus [1364]  Harbour seal Phoca vitulina [1365]	<ul> <li>Reefs - Unfavourable - bad</li> <li>Vegetated sea cliffs – Unfavourable – Inadequate</li> <li>Grey seal - Favourable</li> <li>Harbour seal - Favourable</li> </ul>	To maintain the favourable conservation condition of the following in Lambay Island SAC:  Reefs Vegetated sea cliffs of the Atlantic and Baltic coasts Grey Seal Harbour Seal	<ul> <li>Geology</li> <li>Coastal habitats</li> <li>Prey abundance</li> <li>Water quality</li> <li>There is no current understanding of grey seal habitat use, requirements or preferences outside of the terrestrial/coastal interface. Terrestrial habitat occupied by grey seals during breeding and other shore-based phases of the annual cycle include coastland and marine littoral habitats such as grass banks islands of various size to estuarine sandbanks, intertidal rock ledges and boulder beaches.</li> </ul>
Irelands Eye SAC (002193)	Annex I habitats for which the sites is designated:  Perennial vegetation of stony banks [1220]  Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	<ul> <li>Perennial vegetation of stony banks [1220] – Unfavourable/Inadequate</li> <li>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] – Unfavourable/Inadequate</li> </ul>	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:  • [1220] Perennial vegetation of stony banks  • [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Maintaining appropriate agricultural practices including grazing pressures.</li> <li>Surface and ground water quality</li> <li>Maintaining appropriate levels of disturbance</li> <li>Water levels</li> <li>Air quality</li> <li>Tidal currents</li> <li>Erosion and deposition rates</li> </ul>
Baldoyle Bay	Annex I habitats for which the	<ul> <li>Mudflats and sandflats not</li> </ul>	To maintain the favourable	<ul> <li>Water quality including nutrient levels, water</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
SAC (000199)	<ul> <li>site is designated:</li> <li>Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>Salicornia and other annuals colonizing mud and sand [1310]</li> <li>Atlantic salt meadows Glauco-Puccinellietalia maritimae [1330]</li> <li>Mediterranean salt meadows Juncetalia maritimi [1410]</li> </ul>	covered by seawater at low tide – Unfavourable/Inadequate • Salicornia and other annuals colonizing mud and sand – Unfavourable/Inadequate • Atlantic salt meadows – Unfavourable/Inadequate • Mediterranean salt meadows – Unfavourable/Inadequate	conservation condition of the following in Baldoyle Bay SAC:  • Mudflats and sandflats not covered by seawater at low tide  • Salicornia and other annuals colonizing mud and sand  • Atlantic salt meadows  • Mediterranean salt meadows	clarity, sediment levels  Appropriate agricultural practices including grazing pressures.  Surface and ground water quality  Appropriate levels of access and disturbance  Water levels  Air quality  Tidal currents  Erosion and deposition rates  Maintenance of habitat extent and condition
North Dublin Bay SAC (000206)	Annex I habitats for which the sites is designated:  • Mudflats and sandflats not covered by seawater at low tide [1140]  • Annual vegetation of drift lines [1210]  • Salicornia and other annuals colonizing mud and sand [1310]  • Atlantic salt meadows Glauco-Puccinellietalia maritimae [1330]  • Mediterranean salt meadows Juncetalia maritimi [1410]	Mudflats and sandflats not covered by seawater at low tide —     Unfavourable/Inadequate     Annual vegetation of drift lines —     Unfavourable/Inadequate     Salicornia and other annuals colonizing mud and sand —     Unfavourable/Inadequate     Atlantic salt meadows —     Unfavourable/Inadequate     Mediterranean salt meadows —     Unfavourable/Inadequate     Embryonic shifting dunes —     Unfavourable/Inadequate	To maintain the favourable conservation condition of the following in North Dublin Bay SAC:  • Mudflats and sandflats not covered by seawater at low tide  • Atlantic salt meadows  • Petalwort  • Mediterranean salt meadows  To restore the favourable conservation condition of the following in North Dublin Bay	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Appropriate agricultural practices including grazing pressures.</li> <li>Surface and ground water quality</li> <li>Appropriate levels of disturbance</li> <li>Water levels</li> <li>Air quality</li> <li>Tidal currents</li> <li>Erosion and deposition rates</li> <li>Height and frequency of the tides availability of foreshore sand and the average strength of the onshore winds</li> <li>Damp, calcareous sand in dune slacks and machair</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
	Embryonic shifting dunes [2110] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190]  Annex II species for which the sites is designated:  Petalwort Petalophyllum	Shifting dunes along the shoreline – Unfavourable/Inadequate Fixed coastal dunes – Unfavourable/Bad Humid dune slacks – Unfavourable/Inadequate  Annex II species for which the sites is designated:  Petalwort - Favourable	SAC:     Annual vegetation of drift lines     Salicornia and other annuals colonizing mud and sand     Embryonic shifting dunes     Shifting dunes along the shoreline     Fixed coastal dunes with herbaceous vegetation     Humid dune slacks	
Howth Head SAC (000202)	ralfsii [1395]  Annex I habitats for which the sites is designated:  • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]  • European dry heaths [4030]	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Unfavourable/Inadequate European dry heaths [4030] - Unfavourable/Bad	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:  • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]  • European dry heaths [4030]	<ul> <li>Controlling heath Fires</li> <li>Controlling recreational activities, visitor pressure</li> </ul>
South Dublin Bay SAC (000210)	Annex I habitats for which the sites is designated:  • Mudflats and sandflats not covered by seawater at low tide [1140]	Mudflats and sandflats not covered by seawater at low tide     Unfavourable/Inadequate	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:	<ul> <li>Controlling bait digging</li> <li>Land reclamation for industrial / infrastructure usage</li> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Maintaining appropriate levels of disturbance</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
			<ul> <li>Mudflats and sandflats not covered by seawater at low tide [1140]</li> </ul>	<ul><li> Tidal currents</li><li> Erosion and deposition rates</li></ul>
<b>Special Protection</b>	on Areas (SPAs)			
Lambay Island SPA (004069)	<ul> <li>Fulmar (Fulmarus glacialis)</li> <li>[A009]</li> <li>Cormorant (Phalacrocorax carbo) [A017]</li> <li>Shag (Phalacrocorax aristotelis) [A018]</li> <li>Greylag Goose (Anser anser)</li> <li>[A043]</li> <li>Lesser Black-backed Gull (Larus fuscus) [A183]</li> <li>Herring Gull (Larus argentatus) [A184]</li> <li>Kittiwake (Rissa tridactyla)</li> <li>[A188]</li> <li>Guillemot (Uria aalge)</li> <li>[A199]</li> <li>Razorbill (Alca torda) [A200]</li> <li>Puffin (Fratercula arctica)</li> <li>[A204]</li> </ul>	• [A009] – Green • [A017] – Amber • [A018] – Amber • [A043] – Amber • [A183] – Amber • [A184] – Red • [A188] – Amber • [A199] – Amber • [A200] – Amber • [A204] – Amber	To maintain or restore the favo urable conservation condition of the bird species listed as Special Conservation I nterests for this SPA:  • Fulmarus glacialis [breeding] • Phalacrocorax carbo [breeding] • Phalacrocorax aristotelis [breeding] • Anser anser [wintering] • Larus fuscus [breeding] • Larus argentatus [breeding + wintering] • Rissa tridactyla [breeding] • Uria aalge [breeding] • Alca torda [breeding]	<ul> <li>Geology</li> <li>Coastal habitats</li> <li>Food supply</li> <li>Appropriate levels of disturbance</li> </ul>
Rogerstown Estuary SPA (004015)	<ul> <li>Greylag Goose (Anser anser)</li> <li>[A043]</li> <li>Light-bellied Brent Goose</li> <li>(Branta bernicla hrota)</li> <li>[A046]</li> <li>Shelduck (Tadorna tadorna)</li> </ul>	<ul> <li>[A043] – Amber</li> <li>[A046] – Amber</li> <li>[A048] – Amber</li> <li>[A056] – Red</li> <li>[A130] – Amber</li> </ul>	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Water levels</li> <li>Tidal currents</li> <li>Wind energy</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
	[A048] • Shoveler (Anas clypeata) [A056] • Oystercatcher (Haematopus ostralegus) [A130] • Ringed Plover (Charadrius hiaticula) [A137] • Grey Plover (Pluvialis squatarola) [A141] • Knot (Calidris canutus) [A143] • Dunlin (Calidris alpina) [A149] • Black-tailed Godwit (Limosa limosa) [A156] • Redshank (Tringa totanus) [A162] • Wetlands & waterbirds [A999]	• [A137] – Amber • [A141] – Amber • [A143] – Red • [A149] – Amber • [A156] – Amber • [A162] – Red	<ul> <li>Anser anser [wintering]</li> <li>Branta bernicla hrota [wintering]</li> <li>Tadorna tadorna [wintering]</li> <li>Anas clypeata [wintering]</li> <li>Haematopus ostralegus [wintering]</li> <li>Charadrius hiaticula [wintering]</li> <li>Pluvialis squatarola [wintering]</li> <li>Calidris canutus [wintering]</li> <li>Calidris alpina [wintering]</li> <li>Limosa limosa [wintering]</li> <li>Tringa totanus [wintering]</li> </ul>	<ul> <li>Erosion / deposition levels</li> <li>Freshwater influx</li> <li>Coastal habitats</li> <li>Food supply</li> <li>Appropriate levels of disturbance</li> </ul>
Malahide Estuary SPA (004025) (also known as Broadmeadow / Swords SPA)	<ul> <li>Great Crested Grebe</li> <li>(Podiceps cristatus) [A005]</li> <li>Light-bellied Brent Goose</li> <li>(Branta bernicla hrota) [A046]</li> <li>Shelduck (Tadorna tadorna)</li> <li>[A048]</li> <li>Pintail (Anas acuta) [A054]</li> <li>Goldeneye (Bucephala clangula) [A067]</li> <li>Red-breasted Merganser</li> <li>(Mergus serrator) [A069]</li> <li>Oystercatcher (Haematopus</li> </ul>	<ul> <li>[A005] – Amber</li> <li>[A046] – Amber</li> <li>[A048] – Amber</li> <li>[A054] – Red</li> <li>[A067] – Amber</li> <li>[A069] – Green</li> <li>[A130] – Amber</li> <li>[A140] – Red</li> <li>[A141] – Amber</li> <li>{A143] – Red</li> <li>[A149] – Amber</li> </ul>	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:  • Podiceps cristatus [wintering]  • Branta bernicla hrota [wintering]  • Tadorna tadorna [wintering]  • Anas acuta [wintering]	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Freshwater influx</li> <li>Railway viaduct</li> <li>Water levels</li> <li>Tidal currents</li> <li>Wind energy</li> <li>Erosion / deposition levels</li> <li>Coastal habitats</li> <li>Food supply</li> <li>Appropriate levels of disturbance</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
	ostralegus) [A130] • Golden Plover (Pluvialis apricaria) [A140] • Grey Plover (Pluvialis squatarola) [A141] • Knot (Calidris canutus) [A143] • Dunlin (Calidris alpina) [A149] • Black-tailed Godwit (Limosa limosa) [A156] • Bar-tailed Godwit (Limosa lapponica) [A157] • Redshank (Tringa totanus) [A162] • Wetlands & Waterbirds [A999]	• [A156] – Amber • [A157] – Amber • [A162] – Red	<ul> <li>Bucephala clangula         [wintering]</li> <li>Mergus serrator [wintering]</li> <li>Haematopus ostralegus         [wintering]</li> <li>Pluvialis apricaria [wintering]</li> <li>Pluvialis squatarola         [wintering]</li> <li>Calidris canutus [wintering]</li> <li>Calidris alpina [wintering]</li> <li>Limosa limosa [wintering]</li> <li>Limosa lapponica [wintering]</li> <li>Tringa totanus [wintering]</li> <li>Wetlands &amp; Waterbirds</li> </ul>	
Baldoyle Bay SPA (004016)	<ul> <li>Light-bellied Brent Goose         (Branta bernicla hrota) [A046]</li> <li>Shelduck (Tadorna tadorna)         [A048]</li> <li>Ringed Plover (Charadrius hiaticula) [A137]</li> <li>Golden Plover (Pluvialis apricaria) [A140]</li> <li>Grey Plover (Pluvialis squatarola) [A141]</li> <li>Bar-tailed Godwit (Limosa lapponica) [A157]</li> <li>Wetlands &amp; Waterbirds [A999]</li> </ul>	<ul> <li>[A046] – Amber</li> <li>[A048] – Amber</li> <li>[A137] – Amber</li> <li>[A140] – Red</li> <li>[A141] – Amber</li> <li>[A157] – Amber</li> </ul>	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:  • Branta bernicla hrota [wintering]  • Tadorna tadorna [wintering]  • Charadrius hiaticula [wintering]  • Pluvialis apricaria [wintering]  • Pluvialis squatarola	<ul> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Water levels</li> <li>Tidal currents</li> <li>Wind energy</li> <li>Erosion / deposition levels</li> <li>Freshwater influx</li> <li>Intertidal habitats</li> <li>Coastal habitats</li> <li>Food supply</li> <li>Appropriate levels of disturbance</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
			[wintering] • Limosa lapponica [wintering] • Wetlands & Waterbirds	
Irelands Eye SPA (004117)	<ul> <li>Cormorant (Phalacrocorax carbo) [A017]</li> <li>Herring Gull (Larus argentatus) [A184]</li> <li>Kittiwake (Rissa tridactyla) [A188]</li> <li>Guillemot (Uria aalge) [A199]</li> <li>Razorbill (Alca torda) [A200]</li> </ul>	• [A017] - Amber • [A184] - Red • [A188] – Amber • [A199] – Amber • [A200] – Amber	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:  • Phalacrocorax carbo [breeding] • Larus argentatus [breeding] • Rissa tridactyla [breeding] • Uria aalge [breeding] • Alca torda) [A200] [breeding]	<ul> <li>Breeding Habitat</li> <li>Coastal habitats</li> <li>Foraging Habitat</li> <li>Foraging Resources</li> <li>Water quality</li> <li>Coastal habitats</li> <li>Food supply</li> <li>Appropriate levels of disturbance</li> </ul>
Howth Head Coast SPA (004113)	• Kittiwake ( <i>Rissa tridactyla</i> )	• [A188] – Amber	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:  • Rissa tridactyla [breeding]	<ul> <li>Breeding Habitat (sea cliffs)</li> <li>Foraging Habitat (Irish sea)</li> <li>Food supply</li> <li>Appropriate levels of disturbance</li> </ul>
North Bull Island SPA (004006)	<ul> <li>Oystercatcher (Haematopus ostralegus) [A130]</li> <li>Light-bellied Brent Goose (Branta bernicla hrota) [A046]</li> <li>Shelduck (Tadorna tadorna) [A048]</li> </ul>	<ul> <li>[A130] – Amber</li> <li>[A140] – Red</li> <li>[A141] – Amber</li> <li>[A143] – Red</li> <li>[A144] – Green</li> <li>[A149] – Amber</li> </ul>	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:	<ul> <li>Foraging Habitat</li> <li>Breeding Habitat</li> <li>Food supply</li> <li>Appropriate Levels of disturbance</li> <li>Water quality including nutrient levels, water clarity, sediment levels</li> </ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
	<ul> <li>Teal (Anas crecca) [A052]</li> <li>Pintail (Anas acuta) [A054]</li> <li>Shoveler (Anas clypeata)</li> <li>[A056]</li> <li>Golden Plover (Pluvialis apricaria) [A140]</li> <li>Grey Plover (Pluvialis squatarola) [A141]</li> <li>Knot (Calidris canutus)</li> <li>[A143]</li> <li>Sanderling (Calidris alba)</li> <li>[A144]</li> <li>Dunlin (Calidris alpina)</li> <li>[A149]</li> <li>Black-tailed Godwit (Limosa limosa) [A156]</li> <li>Bar-tailed Godwit (Limosa lapponica) [A157]</li> <li>Curlew (Numenius arquata)</li> <li>[A160]</li> <li>Redshank (Tringa totanus)</li> <li>[A162]</li> <li>Turnstone (Arenaria interpres) [A169]</li> <li>Black-headed Gull (Larus ridibundus) [A179]</li> <li>Wetlands &amp; Waterbirds</li> <li>[A999]</li> </ul>	• [A046] – Amber • [A048] – Amber • [A149] – Amber • [A052] – Amber • [A054] – Red • [A156] – Amber • [A167] – Red • [A160] – Red • [A162] – Red • [A169] – Green • [A179] - Red	<ul> <li>Branta bernicla hrota [wintering]</li> <li>Tadorna tadorna [wintering]</li> <li>Anas crecca [wintering]</li> <li>Anas acuta [wintering]</li> <li>Anas clypeata [wintering]</li> <li>Haematopus ostralegus [wintering]</li> <li>Pluvialis apricaria [wintering]</li> <li>Pluvialis squatarola [wintering]</li> <li>Calidris canutus [wintering]</li> <li>Calidris alba [wintering]</li> <li>Calidris alpina [wintering]</li> <li>Limosa limosa [wintering]</li> <li>Limosa lapponica [wintering]</li> <li>Numenius arquata [wintering]</li> <li>Tringa totanus [wintering]</li> <li>Arenaria interpres [wintering]</li> <li>Chroicocephalus ridibundus [wintering]</li> <li>Wetlands</li> </ul>	<ul> <li>Water levels</li> <li>Tidal currents</li> <li>Erosion / deposition levels</li> <li>Freshwater influx</li> <li>Intertidal habitats</li> <li>Air Quality</li> </ul>
South Dublin Bay and River Tolka Estuary	<ul> <li>Light-bellied Brent Goose</li> <li>(Branta bernicla hrota) [A046]</li> <li>Oystercatcher (Haematopus</li> </ul>	<ul> <li>[A046] – Amber</li> <li>[A130] – Amber</li> <li>[A137] – Amber</li> </ul>	To maintain the favourable conservation condition of the bird species listed as Special	<ul><li>Foraging Habitat</li><li>Breeding Habitat</li><li>Food supply</li></ul>

Site Name & Code	Qualifying Interests	Current Conservation Status <sup>5</sup>	Conservation Management Objectives <sup>6</sup>	Conditions underpinning site integrity
SPA (004024)	ostralegus) [A130] • Ringed Plover (Charadrius hiaticula) [A137] • Grey Plover (Pluvialis squatarola) [A140] • Knot (Calidris canutus) [A143] • Sanderling (Calidris alba) [A144] • Dunlin (Calidris alpina) [A149] • Bar-tailed Godwit (Limosa lapponica) [A157] • Redshank (Tringa totanus) [A162] • Black-headed Gull (Larus ridibundus) [A179] • Roseate Tern (Sterna dougallii) [A192] • Common Tern (Sterna hirundo) [A193] • Arctic Tern (Sterna paradisaea) [A194] • Wetlands & Waterbirds [A999]	• [A140] – Amber • [A143] – Red • [A144] – Green • [A157] – Amber • [A157] – Red • [A179] - Red • [A192] – Amber • [A193] – Amber • [A194] – Amber	Conservation Interests for this SPA:  • Branta bernicla hrota [wintering] • Haematopus ostralegus [wintering] • Charadrius hiaticula [wintering] • Calidris canutus [wintering] • Calidris alba [wintering] • Calidris alpina [wintering] • Limosa lapponica [wintering] • Tringa totanus [wintering] • Chroicocephalus ridibundus [wintering] • Sterna dougallii [passage] • Sterna hirundo [breeding + passage] • Sterna paradisaea [passage] • Wetlands []  Proposed for removal from list of SCIs with no SSCO: • Pluvialis squatarola [wintering]	<ul> <li>Appropriate Levels of disturbance</li> <li>Water quality including nutrient levels, water clarity, sediment levels</li> <li>Water levels</li> <li>Tidal currents</li> <li>Erosion / deposition levels</li> <li>Freshwater influx</li> <li>Intertidal habitats</li> <li>Air Quality</li> </ul>

Qualifying Interests of European Sites [EU Reference Code]	Main pressures and threats to h	nabitat conservation status <sup>7,8,9,10,11</sup>
Habitats		
Estuaries [1130]	Aquaculture Fishing Nautical sports	Dredging Piers/Harbours/Slipways Water Pollution
	Other recreational activities	
Mudflats and sandflats not covered by seawater at low tide [1140]	Water Pollution Aquaculture Fishing	Dredging Nautical sports Other recreational activities
Reefs [1170]	Hand collection  Aquaculture Fishing Water Pollution Industrial ports Intensive fish farming Piers/Harbours/Slipways	Exploration and extraction of oil or gas Dredging Geotechnical survey Nautical sports Hand collection
Annual vegetation of drift lines [1210]	Agricultural activities Grazing Removal of beach materials Piers/Harbours/Slipways Walking, horse riding and non- motorised vehicles Off-road motorised vehicles Other human intrusions and disturbances	Trampling, overuse Other leisure and tourism impacts (beach cleaning) Dumping of solid waste Dumping of dredging material Sea defence or coastal protection works Reduction or loss of specific habitat features Changes in abiotic conditions
Perennial vegetation of stony banks [1220]	Sand and gravel extraction Removal of beach materials Pipelines Disposal of inert materials Dumping of solid waste Trampling, overuse	Walking, horse riding and non- motorised vehicles Other forms of pollution Landfill, land reclamation and drying out Sea defence or coastal protection works Changes in abiotic conditions
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Invasive non-native species Sand and gravel extraction Sea defence/coastal protection works Paths, tracks, cycling tracks Sea-level change Non intensive sheep grazing Railways lines Piers/Harbours/Slipways Discharges	Disposal of household/ recreational/industrial wastes Structures, buildings in the landscape Other urbanisation and industrial and similar activities Diffuse water pollution (agriculture. Forestry, household sewage and waste water) Collapse of terrain, landslide Flooding and rising precipitations

<sup>7</sup> Sourced from Status of EU Protected Habitats and Species in Ireland (NPWS, 2013a & 2013b).

<sup>8</sup> Sourced from Birdguides (2003-2006), Birds of the Western Palaearctic. Version 2.0.1.

<sup>9</sup> Sourced from BirdLife International (2013). IUCN Red List for birds. Downloaded from http://www.birdlife.org, January 2012 10 Sourced from AEWA, (2006), Technical Series No. 11, International Single Species Action Plan for Light-bellied Brent Goose (East Canadian High Artic Population) Branta bernicla hrota.

<sup>&</sup>lt;sup>11</sup>Sourced from Irelands Article 12 submission to the EU Commission on the *Status and trends of bird species* (2008-2012) http://ec.europa.eu/environment/nature/knowledge/rep\_birds/index\_en.htm

within 15km of the proposed Masterplan (also see Table 1A)			
Qualifying Interests of European Sites [EU Reference Code]	Main pressures and threats to habitat conservation status <sup>7,8,9,10,11</sup>		
Salicornia and other annuals colonizing mud and sand [1310]	Invasive non-native species Erosion Silting up Intensive cattle grazing Intensive sheep grazing Diffuse water pollution (household sewage and waste waters) Species composition change	Reclamation of land from sea, estuary or marsh Dykes, embankments and artificial beaches Walking, horse riding and non- motorised vehicles Changes in abiotic conditions	
Spartina swards <i>Spartinion</i> maritimae [1320]	N/A		
Atlantic salt meadows Glauco-Puccinellietalia maritimae [1330]	Intensive cattle/sheep grazing Walking, horse riding and non- motorised vehicles Disposal of household/recreational waste Other industrial/commercial area Reclamation of land from sea, estuary or marsh	Polderisation Erosion Invasive non-native species	
Mediterranean salt meadows <i>Juncetalia</i> <i>maritimi</i> [1410]	Intensive cattle/sheep grazing Paths, tracks, cycling tracks Modification of hydrographic functioning	Erosion Infilling of ditches, dykes, ponds, pools, marshes or pits	
Embryonic shifting dunes [2110]	Intensive grazing Sand and gravel extraction Paths, tracks, cycling routes Disposal of household/recreational waste Recreational activities Sports and leisure structures Trampling, overuse Intensive maintenance – cleaning of beaches	Fences, fencing Invasive non-native species Dredging Erosion Sea defence or coastal protection works Species composition change Changes in abiotic conditions	
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	Intensive grazing Sand and gravel extraction Paths, tracks, cycling routes Disposal of household/recreational waste Recreational activities Trampling, overuse Intensive maintenance – cleaning of beaches	Fences, fencing Invasive non-native species Dredging Erosion Sea defence or coastal protection works Species composition change Changes in abiotic conditions	
*Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Agricultural intensification Abandonment of pastoral systems, lack of grazing Forest and plantation management and use Trampling, overuse Dumping Sea defence or coastal protection	Sand and gravel extraction Roads, paths and railroads Discontinuous urbanisation Disposal of household/recreational waste Recreational activities Sports and recreational structures Erosion	

Table 1B Main Pressures and Threats to the Qualifying Interests of European Sites within 15km of the proposed Masterplan (also see Table 1A)			
Main pressures and threats to habitat conservation status <sup>7,8,9,10,11</sup>			
omposition change grazing	Changes in abiotic conditions Invasive non-native species		
al intensification ment of pastoral systems, nzing grazing d plantation management gravel extraction ths and railroads uous urbanisation nal activities	Sand and gravel extraction Sports and recreational structures Trampling, overuse Invasive non-native species Sea defence or coastal protection works Species composition change Erosion Changes in abiotic conditions Disposal of household/recreational waste		
al intensification sive cattle/sheep grazing ment of pastoral systems, azing lanting on open ground d quarrying rgy production ths and railroads habitation horse riding and non- I vehicles notorized driving	Fences, fencing Air pollution, air borne pollutants Invasive non-native species Problematic native species Burning down Erosion Species composition change Damage by herbivores Collapse of terrain, landslide Changes in abiotic conditions Changes in biotic conditions		
notorized driving			
njury by collision ater pollution ing/removal of marine ater pollution	Noise nuisance, noise pollution Seismic exploration, explosions Changes in abiotic conditions Noise nuisance, noise pollution Seismic exploration, explosions Changes in abiotic conditions		
ing/removal of marine nal activities	Marine water pollution Noise nuisance, noise pollution Seismic exploration, explosions Changes in abiotic conditions		
No threats or pressures  Ingestion of anthropogenic sea debris (can lead to death).			
Renewable abiotic energy use, invasive non-native species, changes in abiotic conditions, roads, paths and railroads, outdoor sports and leisure activities, recreational activities.			
Degradation of foraging sites due to land reclamation, pollution, human disturbance and invasion by <i>Spartina</i> species.  Marine water pollution, fishing and harvesting aquatic resources, renewable			
s, na c	, roads, paths and railroad al activities. on of foraging sites due to e and invasion by <i>Spartina</i>		

Table 1B Main Pressures and Threats to the Qualifying Interests of European Site within 15km of the proposed Masterplan (also see Table 1A)			
Qualifying Interests of European Sites [EU Reference Code]	Main pressures and threats to habitat conservation status <sup>7,8,9,10,11</sup>		
Black-tailed Godwit (Limosa limosa) [A156]	Human disturbance, spread of invasive species (Spartina species), and loss of grassland feeding sites (may avoid saline influenced coastal grasslands if don't contain earthworms). Juvenile birds which select good wintering sites also select good breeding sites, therefore maintaining high quality wintering sites is crucial to raising productivity on breeding grounds and slowing the rate of decline.		
Common Tern (Sterna hirundo) [A193]	Renewable abiotic energy use, shipping lanes, ports, marine constructions, invasive non-native species, renewable abiotic energy use, roads, paths and railroads, outdoor sports and leisure activities, recreational activities.		
Cormorant (Phalacrocorax carbo) [A017]	Off-shore windfarms and on-shore powerline collisions, persecution from angling/aquaculture industry, drowning in gill nets, predation by Gulls at colony.		
Curlew (Numenius arquata) [A160]	Human disturbance, pollution, and hunting.		
Dunlin (Calidris alpina) [A149]	Land reclamation (drainage), and the invasion of alien plant species (such as the grass <i>Spartina anglica</i> which has spread on British mudflats, resulting in the reduction in size of feeding areas available). The species is also threatened by disturbance on intertidal mudflats from construction work and foot-traffic on footpaths.		
Golden Plover (Pluvialis apricaria) [A140]	Susceptible to very cold winter temperatures and severe weather conditions.  Disturbance and loss of roosting and feeding grounds, spread of Spartina species.		
Goldeneye (Bucephala clangula) [A067]	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, changes in biotic conditions.		
Great Crested Grebe (Podiceps cristatus) [A005]	Drowning in gill-nets, overfishing.		
Grey Plover (Pluvialis squatarola) [A141]	Over-fishing, disturbance and habitat loss at roost sites.		
Greylag Goose (Anser anser) [A043]	Poisoning from lead shot ingestion, agricultural changes, disturbance from both terrestrial and aquatic recreation at roosting sites		
Guillemot (Uria aalge) [A199]	Renewable abiotic energy use, marine water pollution.		
Herring Gull (Larus argentatus) [A184]	Competition for food with other <i>Larus</i> species. Licensed culling for protection of other seabirds (e.g. terns), botulism.		
Kittiwake (Rissa tridactyla) [A188]	Renewable abiotic energy use, marine water pollution, fishing and harvesting aquatic resources.		
Knot (Calidris canutus) [A143]	Over-fishing, and water pollution from historical landfills, over-exploitation of shellfish, human disturbance at roosts and feeding sites,		
Lesser Black-backed Gull (Larus fuscus) [A183]	Competition for food with other <i>Larus</i> species. Licensed culling for protection of other seabirds (e.g. terns), botulism.		
Light-bellied Brent Goose (Branta bernicla hrota) [A046]	Habitat loss/degradation (human induced) – agriculture, infrastructural development, human settlement, tourism, recreation, dams, invasive species; accidental mortality – collision; persecution; pollution – global warming, sea		

Table 1B Main Pressures and Threats to the Qualifying Interests of European Sites within 15km of the proposed Masterplan (also see Table 1A)				
Qualifying Interests of European Sites [EU Reference Code]	Main pressures and threats to habitat conservation status <sup>7,8,9,10,11</sup>			
	level rise, water pollution; natural disasters – drought, storms, flooding; changes in native species dynamics – competitors, pathogens/parasites; poor regeneration, restricted range; human disturbance – recreation, transport, agricultural, industrial.			
Oystercatcher (Haematopus ostralegus) [A130]	Over-fishing of benthic shellfish and the resulting disappearance of intertidal mussel and cockle beds, also threatened by habitat degradation on its wintering grounds due to land reclamation, pollution, and human disturbance.			
Pintail (Anas acuta) [A054]	Recreational activities, water pollution infilling, water sports and other amenity activities.			
Puffin (Fratercula arctica) [A204]	Invasive non-native species, marine water pollution, renewable abiotic energy use.			
Razorbill (Alca torda) [A200]	Renewable abiotic energy use, marine water pollution.			
Red-breasted Merganser (Mergus serrator) [A069]	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution.			
Redshank (Tringa totanus) [A162]	Human disturbance, spread of invasive species (Spartina species), loss of breeding habitat.			
Ringed Plover (Charadrius hiaticula) [A137]	Over-fishing, and water pollution from historical landfills, botulism, disturbance at coastal roost sites			
Roseate Tern (Sterna dougallii) [A192]	Sea level rise and extreme weather events (waves washing over colonies can destroy entire colonies). Human disturbance (day-trippers, sailors), and predation by gulls and rats. rat and gull predation of breeding colonies			
Sanderling (Calidris alba) [A144]	Outdoor sports and leisure activities, recreational activities, marine and freshwater aquaculture, renewable abiotic energy use, marine water pollution, changes in abiotic conditions.			
Shag (Phalacrocorax aristotelis) [A018]	Windfarms, overfishing, oil spills, persecution from angling/ aquaculture industry, drowning in gill nets, predation by gulls at colony.			
Shelduck (Tadorna tadorna) [A048]	Habitat loss at feeding and roosting sites. Spartina invasion of feeding areas.			
Shoveler (Anas clypeata) [A056]	Wintering habitat loss, potential impact from collisions with overhead lines, poisoning from lead-shot ingestion.			
Teal (Anas crecca) [A052]	Drainage of feeding sites, disturbance at roost sites, poisoning from lead-shot ingestion, hunting.			
Turnstone (Arenaria Renewable abiotic energy use, marine and freshwater aquaculture, ou sports and leisure activities, recreational activities, marine water pollu ecosystem modifications, changes in abiotic conditions.				
Wetlands & Waterbirds [A999]	Bait digging, wildfowling, spread of Spartina, disturbance including dog walkers, recreational activities, water pollution, infilling, oil spillages from shipping (sourced Natura 2000 forms for each site).			



Site name and code	Distance from Proposed Development (approximate)	Reasons for designation <sup>12</sup> (*= Priority Habitat)	Source-pathway-receptor links between proposed development and European site?
Special Areas of Cons	servation (SAC)		
Baldoyle Bay SAC (000199)	Located c. 6km east of the proposed development site	Conservation Objectives Version 1.0 (19/11/2012)  Annex I Habitats:  Mudflats and sandflats not covered by seawater at low tide [1140]  Salicornia and other annuals colonising mud and sand [1310]  Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]  Mediterranean salt meadows (Juncetalia maritimi) [1410]	Yes. There is a potential pathway between the proposed Masterplan lands and the European site, as surface water runoff arising from the site will be discharged to local watercourses, River Mayne and Sluice, which ultimately discharge to Baldoyle Bay.
Malahide Estuary SAC (000205)	Located c. 4.5km northeast of the proposed development site	Conservation Objectives Version 1.0 (27/05/2013)  Annex I Habitats:  Mudflats and sandflats not covered by seawater at low tide [1140]  Salicornia and other annuals colonising mud and sand [1310]  Spartina swards (Spartinion maritimae) [1320]  Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]  Mediterranean salt meadows (Juncetalia maritimi) [1410]  Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]  Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	No. Due to distance separating the site from the Masterplan lands and lack of connecting pathways e.g. watercourses.
North Dublin Bay SAC (000206)	Located <i>c.</i> 7.2km south-	Conservation Objectives Version 1.0 (06/11/2013)  Annex I Habitats:	Yes. There is a potential link between the proposed development and the European Site, as treated

<sup>12</sup> "Qualifying Interests" for SACs and "Special Conservation Interests" for SPAs based on relevant Statutory Instruments for each SPA, and NPWS Conservation Objectives for SACs downloaded from <a href="https://www.npws.ie">www.npws.ie</a> in January 2016.

Table 1C Analys	sis of impact pat	hways to European sites within 15km.	
	east of the proposed development site	<ul> <li>Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>Annual vegetation of drift lines [1210]</li> <li>Salicornia and other annuals colonising mud and sand [1310]</li> <li>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]</li> <li>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>Embryonic shifting dunes [2110]</li> <li>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</li> <li>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</li> <li>Humid dune slacks [2190]</li> <li>Annex II Species:</li> <li>Petalophyllum ralfsii (Petalwort) [1395]</li> </ul>	foul water arising from the proposed development will be discharged from Ringsend WWTP into Dublin Bay.
Rogerstown Estuary SAC (000208)	Located c. 8.5km north- east of the proposed development site	Conservation Objectives Version 1.0 (14/08/2013)  Annex I Habitats:  Estuaries [1130]  Mudflats and sandflats not covered by seawater at low tide [1140]  Salicornia and other annuals colonising mud and sand [1310]  Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]  Mediterranean salt meadows (Juncetalia maritimi) [1410]  Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]  Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	No. Due to distance separating the site from the Masterplan lands and lack of connecting pathways e.g. watercourses.
South Dublin Bay SAC (000210)	Located c. 10km southeast of the proposed development site	Detailed Conservation Objectives Version 1.0 (22/08/2013)  Annex I Habitats:  Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. There is a potential link between the proposed development and the European Site, as treated foul water arising from the proposed development will be discharged from Ringsend WWTP into Dublin Bay.

Table 1C Analysi	s of impact pat	hways to European sites within 15km.	
Rockabill to Dalkey Island SAC (003000)	Located <i>c.</i> 10.7km east of the proposed development site	Detailed Conservation Objectives Version 1.0 (07/05/2013)  Annex I Habitats:  Reefs [1170]  Annex II Species:  Phocoena phocoena (Harbour Porpoise) [1351]	No. Due to the distance separating the site and the Masterplan lands and the substantial marine water buffer between the European site and WWTW outfall pipe at Ringsend.
Ireland's Eye SAC (002193)	Located <i>c</i> . 10.7km east of the proposed development site	Generic Conservation Objectives Version 4.0 (13/02/2015)  Annex I Habitats:  Perennial vegetation of stony banks [1220]  Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	No. Due to the distance separating the site and the Masterplan lands and the substantial marine water buffer between the European site and WWTW outfall pipe at Ringsend.
Howth Head SAC (000202)	Located c. 11km southeast of the proposed development site	Generic Conservation Objectives Version 4.0 (13/02/2015)  Annex I Habitats:  Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]  European dry heaths [4030]	No. Due to the distance separating the site and the Masterplan lands, and the marine water buffer between the European site and: - the WWTW outfall pipe at Ringsend; - the discharge points of the River Mayne and Sluice into Baldoyle Bay. In the case of European dry heaths the fact that this habitat is located above the shoreline and therefore there is no hydrological connection to it.
Lambay Island SAC (000204)	Located c. 15km northeast of the proposed development site	Detailed Conservation Objectives Version 1.0 (22/07/2013)  Annex I Habitats:  Reefs [1170]  Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]  Annex II Species:  Halichoerus grypus (Grey Seal) [1364]  Phoca vitulina (Common Seal) [1365]	No. Due to the distance separating the site and the Masterplan lands, and the marine water buffer between the European site and: - the WWTW outfall pipe at Ringsend; - the discharge points of the River Mayne and Sluice into Baldoyle Bay.
Special Protection Ar	eas (SPA)		

Table 1C Analys	is of impact pat	hways to European sites within 15km.	
Malahide Estuary SPA (004025)	Located c. 4.5km northeast of the proposed development site	Conservation Objectives Version 1.0 (16/08/2013)  Great Crested Grebe (Podiceps cristatus) [A005]  Light-bellied Brent Goose (Branta bernicla hrota) [A046]  Shelduck (Tadorna tadorna) [A048]  Pintail (Anas acuta) [A054]  Goldeneye (Bucephala clangula) [A067]  Red-breasted Merganser (Mergus serrator) [A069]  Oystercatcher (Haematopus ostralegus) [A130]  Golden Plover (Pluvialis apricaria) [A140]  Grey Plover (Pluvialis squatarola) [A141]  Knot (Calidris canutus) [A143]  Dunlin (Calidris alpina) [A149]  Black-tailed Godwit (Limosa limosa) [A156]  Bar-tailed Godwit (Limosa lapponica) [A157]  Redshank (Tringa totanus) [A162]  Wetland and Waterbirds [A999]	No due to distance separating the site from the Masterplan lands and lack of connecting pathways e.g. watercourses.
Baldoyle SPA (004016)	Located c. 6km east of the proposed development site	<ul> <li>Detailed Conservation Objectives Version 1.0 (27/02/2013)</li> <li>Light-bellied Brent Goose (Branta bernicla hrota) [A046]</li> <li>Shelduck (Tadorna tadorna) [A048]</li> <li>Ringed Plover (Charadrius hiaticula) [A137]</li> <li>Golden Plover (Pluvialis apricaria) [A140]</li> <li>Grey Plover (Pluvialis squatarola) [A141]</li> <li>Bar-tailed Godwit (Limosa lapponica) [A157]</li> <li>Wetland and Waterbirds [A999]</li> </ul>	Yes. There is a potential pathway between the proposed Masterplan lands and the European site, as surface water runoff arising from the site will be discharged to local watercourses, River Mayne and Sluice, which ultimately discharge to Baldoyle Bay.

Table 1C Analys	is of impact pat	hways to European sites within 15km.	
South Dublin Bay and River Tolka Estuary SPA (004024)	Located c. 10km southeast of the proposed development site	Detailed Conservation Objectives Version 1.0 (09/03/2015)  Light-bellied Brent Goose (Branta bernicla hrota) [A046]  Oystercatcher (Haematopus ostralegus) [A130]  Ringed Plover (Charadrius hiaticula) [A137]  Grey Plover (Pluvialis squatarola) [A141]  Knot (Calidris canutus) [A143]  Sanderling (Calidris alba) [A144]  Dunlin (Calidris alpina) [A149]  Bar-tailed Godwit (Limosa lapponica) [A157]  Redshank (Tringa totanus) [A162]  Black-headed Gull (Chroicocephalus ridibundus) [A179]  Roseate Tern (Sterna dougallii) [A192]  Common Tern (Sterna hirundo) [A193]  Arctic Tern (Sterna paradisaea) [A194]  Wetland and Waterbirds [A999]	Yes. There is a potential link between the proposed development and the European Site, as treated foul water arising from the proposed development will be discharged from Ringsend WWTP into Dublin Bay.
North Bull Island SPA (004006)	Located c. 7.2km southeast of the proposed development site	Detailed Conservation Objectives Version 1.0 (09/03/2015)  Light-bellied Brent Goose (Branta bernicla hrota) [A046]  Shelduck (Tadorna tadorna) [A048]  Teal (Anas crecca) [A052]  Pintail (Anas acuta) [A054]  Shoveler (Anas clypeata) [A056]  Oystercatcher (Haematopus ostralegus) [A130]  Golden Plover (Pluvialis apricaria) [A140]  Grey Plover (Pluvialis squatarola) [A141]  Knot (Calidris canutus) [A143]  Sanderling (Calidris alba) [A144]  Dunlin (Calidris alpina) [A149]	Yes. There is a potential link between the proposed development and the European Site, as treated foul water arising from the proposed development will be discharged from Ringsend WWTP into Dublin Bay.

Rogerstown	Located c.	<ul> <li>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>Curlew (<i>Numenius arquata</i>) [A160]</li> <li>Redshank (<i>Tringa totanus</i>) [A162]</li> <li>Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</li> <li>Wetland and Waterbirds [A999]</li> <li>Conservation Objectives Version 1.0 (20/05/2013)</li> </ul>	No due to distance separating the site from the
Estuary SPA (004015)	8.5km northeast of the proposed development site	<ul> <li>Greylag Goose (Anser anser) [A043]</li> <li>Light-bellied Brent Goose (Branta bernicla hrota) [A046]</li> <li>Shelduck (Tadorna tadorna) [A048]</li> <li>Shoveler (Anas clypeata) [A056]</li> <li>Oystercatcher (Haematopus ostralegus) [A130]</li> <li>Ringed Plover (Charadrius hiaticula) [A137]</li> <li>Grey Plover (Pluvialis squatarola) [A141]</li> <li>Knot (Calidris canutus) [A143]</li> <li>Dunlin (Calidris alpina) [A149]</li> <li>Black-tailed Godwit (Limosa limosa) [A156]</li> <li>Redshank (Tringa totanus) [A162]</li> <li>Wetland and Waterbirds [A999]</li> </ul>	Masterplan lands and lack of connecting pathways e.g. watercourses.
Ireland's Eye SPA (004117)	Located c. 10.7km east of the proposed development site	Generic Conservation Objectives Version 4.0 (13/02/2015)  Cormorant (Phalacrocorax carbo) [A017] Herring Gull (Larus argentatus) [A184] Kittiwake (Rissa tridactyla) [A188] Guillemot (Uria aalge) [A199]	No. Due to the distance separating the site and the Masterplan lands and the substantial marine water buffer between the European site and WWTW outfall pipe at Ringsend.



		Razorbill (Alca torda) [A200]	
Howth Head Coast SPA (004113)	Located <i>c.</i> 12.5km east of the proposed development site	Generic Conservation Objectives Version 4.0 (13/02/2015)  • Kittiwake (Rissa tridactyla) [A188]	No. Due to the distance separating the site and the Masterplan lands, and the marine water buffer between the European site and: - the WWTW outfall pipe at Ringsend; - the discharge points of the River Mayne and Sluice into Baldoyle Bay.
Lambay Island SPA (004069)	Located c. 15km northeast of the proposed development site	Generic Conservation Objectives Version 4.0 (13/02/2015)  Fulmar (Fulmarus glacialis) [A009]  Cormorant (Phalacrocorax carbo) [A017]  Shag (Phalacrocorax aristotelis) [A018]  Greylag Goose (Anser anser) [A043]  Lesser Black-backed Gull (Larus fuscus) [A183]  Herring Gull (Larus argentatus) [A184]  Kittiwake (Rissa tridactyla) [A188]  Guillemot (Uria aalge) [A199]  Razorbill (Alca torda) [A200]  Puffin (Fratercula arctica) [A204]	No. Due to the distance separating the site and the Masterplan lands, and the marine water buffer between the European site and: - the WWTW outfall pipe at Ringsend; - the discharge points of the River Mayne an Sluice into Baldoyle Bay.

#### Site specific conservation objectives of the QIs of Baldoyle Bay SAC, North Dublin Bay SAC and South Dublin Bay SAC Table 1D

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide which is defined by the following list of attributes and targets (taken from Baldoyle Bay SAC conservation objectives):

Attribute	Measure	Target
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes.
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sand dominated by Angulus tenuis community complex; and Estuarine sandy mud with Pygospio elegans and Tubificoides benedii community complex

#### 1210 Drift lines

To restore the favourable conservation condition of Drift lines which is defined by the following list of attributes and targets (taken from the North Dublin Bay SAC conservation objectives):

Habitat area	Hectares	Area increasing, subject to natural processes, including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: typical species and sub - communities	Percentage cover at a representative sample of monitoring stops	Maintain the presence of species - poor communities with typical species: sea rocket (Cakile maritima), sea sandwort (Honckenya peploides), prickly saltwort (Salsola kali) and oraches (Atriplex spp.)
Vegetation structure: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover

#### 1310 Salicornia and other annuals colonizing mud and sand

To maintain the favourable conservation condition of Salicornia and other annuals colonizing mud and sand which is defined by the following list of attributes and targets (taken from **Baldoyle Bay SAC conservation objectives):** 



Attribute	Measure	Target
Habitat area	Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain/restore creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub - communities	Percentage cover	Maintain the presence of species - poor communities with typical species listed in Saltmarsh Monitoring Project (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - Spartina anglica	Hectares	No significant expansion of common cordgrass ( <i>Spartina anglica</i> ), with an annual spread of less than 1%

### 1330 Atlantic salt meadows (Glaucotlantinellietalia maritimae)

To maintain the favourable conservation condition of Atlantic salt meadows (Glaucotlantinellietalia maritimae) which is defined by the following list of attributes and targets (taken from **Baldoyle Bay SAC conservation objectives):** 

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession.
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes.
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions.
Physical structure: creeks and pans	Occurrence	Maintain/restore creek and pan structure, subject to natural processes, including erosion and succession.



Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime.
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession.
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward.
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of the area outside of the creeks vegetated.
Vegetation composition: typical species and sub - communities	Percentage cover at a representative sample of monitoring stops	Maintain range of sub communities with typical species listed in Saltmarsh Monitoring Project (McCorry and Ryle, 2009).
Vegetation structure: negative indicator species - Spartina anglica	Hectares	No significant expansion of common cordgrass ( <i>Spartina anglica</i> ), with an annual spread of less than 1%.

## 1395 Petalwort Petalophyllum ralfsii

To maintain the favourable conservation condition of Petalwort which is defined by the following list of attributes and targets (taken from North Dublin Bay SAC conservation objectives):

Attribute	Measure	Target
Distribution of populations	Number and geographical spread	No decline
Population size	Number of individuals	No decline. The population at Bull Island estimated at a maximum of 5,824 thalli. Actual population is more likely to be 5% of this, or c. 300 thalli.
Area of suitable habitat	Hectares	No decline. Area of suitable habitat at Bull Island is estimated to be c.0.04ha
Hydrological conditions: soil moisture	Occurrence	Maintain hydrological conditions so that substrate is kept moist and damp throughout the year, but not subject to prolonged inundation by flooding in winter.
Vegetation: height and cover	Centimetres and percentage	Maintain open, low vegetation, with a high percentage of bryophytes (small acrocarps and liverwort turf) and bare ground.

### 1410 Mediterranean salt meadows (Juncetalia maritimi)

To maintain the favourable conservation condition of Mediterranean salt meadows (Juncetalia maritimi) which is defined by the following list of attributes and targets (taken from **Baldoyle Bay SAC conservation objectives):** 

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.



Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species	Percentage cover	Maintain range of sub-communities with typical species listed in Saltmarsh Monitoring Project (McCorry and Ryle, 2009).
Vegetation structure: negative indicator species - Spartina anglica	Hectares	No significant expansion of common cordgrass ( <i>Spartina anglica</i> ), with an annual spread of less than 1%

# 2110 Embryonic shifting dunes

To restore the favourable conservation condition of Embryonic shifting dunes which is defined by the following list of attributes and targets (taken from North Dublin Bay SAC conservation objectives):

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions.
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession.
Vegetation composition: plant health of foredune grasses	Percentage cover	More than 95% of sand couch ( <i>Elytrigia juncea</i> ) and/or lyme-grass ( <i>Leymus arenarius</i> ) should be healthy (i.e. green plant parts above ground and flowering heads present).



Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sand couch ( <i>Elytrigia juncea</i> ) and/or lyme-grass ( <i>Leymus arenarius</i> ).
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover.

### 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes)

To restore the favourable conservation condition of Shifting dunes along the shoreline with Ammophila arenaria ('white dunes') which is defined by the following list of attributes and targets (taken from North Dublin Bay SAC conservation objectives):

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions.
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession.
Vegetation composition: plant health of dune grasses	Percentage cover	95% of marram grass ( <i>Ammophila arenaria</i> ) and/or lymegrass ( <i>Leymus arenarius</i> ) should be healthy (i.e. green plant parts above ground and flowering heads present).
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities dominated by marram grass (Ammophila arenaria) and/or lymegrass (Leymus arenarius).
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover.

### 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)

To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') which is defined by the following list of attributes and targets (taken from North Dublin Bay SAC conservation objectives):

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical



sediment supply		obstructions.
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession.
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes.
Vegetation structure: sward height	Centimetres	Maintain structural variation within sward.
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et al. (2013).
Vegetation composition: negative indicator species (including <i>Hippophae rhamnoides</i> )	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover.
Vegetation composition: scrub/trees	Percentage cover	No more than 5% cover or under control.

### 2190 Humid dune slacks

To restore the favourable conservation condition of Humid dune slacks with herbaceous vegetation ('grey dunes') which is defined by the following list of attributes and targets (taken from North Dublin Bay SAC conservation objectives):

Attribute	Measure	Target
Habitat area	Hectares	Area increasing, subject to natural processes including erosion and succession.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions.
Physical structure: hydrological and flooding regime	Water table levels; groundwater fluctuations (metres)	Maintain natural hydrological regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession.
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et al. (2013).



Vegetation composition: cover of Salix repens	Percentage cover; centimetres	Maintain less than 40% cover of creeping willow (Salix repens)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage cover	No more than 5% cover or under control

# Table 1D Site specific conservation objectives of the SCIs of Baldoyle Bay SPA, North Bull Island SPA and South Dublin Bay & River Tolka Estuary SPA

Arctic Tern Sterna paradisaea [A194], Common Tern Sterna hirundo [A193]

To maintain the favourable conservation condition of Common Tern and Arctic Tern which is defined by the following list of attributes and targets (taken from South Dublin Bay and River Tolka Estuary SPA conservation objectives):

Attribute	Measure	Target
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline
Productivity rate: fledged young per breeding pair	Mean number	No significant decline
Passage population: individuals	Number	No significant decline
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline
Distribution: roosting areas	Number; location; area (hectares)	No significant decline
Prey biomass available	Kg	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding population
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers among the post-breeding aggregation of terns



#### Roseate Tern Sterna dougallii [A192]

To maintain the favourable conservation condition of Roseate Tern which is defined by the following list of attributes and targets (taken from South Dublin Bay and River Tolka Estuary SPA conservation objectives):

Attribute	Measure	Target
Passage population: individuals	Number	No significant decline
Distribution: roosting areas	Number; location; area (hectares)	No significant decline
Prey biomass available	Kg	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns

Light-bellied Brent Goose Branta bernicla hrota [A046], Shelduck Tadorna tadorna [A048], Ringed Plover Charadrius hiaticula [A137], Golden Plover Pluvialis apricaria [A140], Grey Plover Pluvialis squatarola [A141], Bar-tailed Godwit Limosa lapponica [A157], Pintail Anas acuta [A054], Shoveler Anas clypeata [A056], Oystercatcher Haematopus ostralegus [A130], Knot Calidris canutus [A143], Sanderling Calidris alba [A144], Dunlin Calidris alpina [A149], Black-tailed Godwit Limosa limosa [A156], Bar-tailed Godwit Limosa lapponica [A156], Curlew Numenius arquata [A160], Redshank Tringa, totanus [A162], Turnstone Arenaria interpres [A169], Black-headed Gull Chroicocephalus ridibundus [A179].

To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA (taken from Baldoyle Bay SPA conservation objectives)

Attribute	Measure	Target
Population trend	Numbers / Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by all of the above named species, other than that occurring from natural patterns of variation

#### Wetlands [A999]

Maintain the favourable conservation condition

Attribute	Measure	Target
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Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not
		significantly less than the area specified in the site conservation objectives, other than
		that occurring from natural patterns of variation

Objective	Text	Comments on the potential for likely significant effects to arise from,
		or to have been addressed by, the Objective
Objective MP1	To safeguard the current and future operational, safety and access requirements of Dublin Airport while optimising the development potential of Zone 1 in the Masterplan lands.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MP2	To promote economic growth and employment generation at the Masterplan lands with potential to capitalise on the airport location and integrate with sustainable transportation networks that exist or are planned for Dublin Airport.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MP3	To facilitate the wide range of uses acceptable in principle and open for consideration under the 'HT' Zoning that applies to the Masterplan lands, but primarily to promote the development of a high quality office accommodation that reflect the unique characteristics of this airport location.	In isolation, could pose likely significant effects on European sites via surface water run-off and foul water discharge. However when implemented in combination with the other Objectives that mitigate such potential effects and the legal requirement for project-level AA Screening, there is no likelihood of significant effects.
Objective MP4	For the most part, the use classes associated with the 'HT' Zoning shall apply for new development within the Masterplan lands subject to the contents of Table 6.1. In assessing proposals for new development, regard shall be had to Table 6.1 which clarifies the nature and extent of appropriate use classes for the Masterplan lands, which are considered necessary to ensure consistency between the overall HT use classes and the specific requirements of Local Objective 378	In isolation could pose likely significant effects on European sites via surface water run-off and foul water discharge. However when implemented in combination with the other Objectives that mitigate such potential effects, and the legal requirement for project level AA Screening, there is no likelihood of significant effects.
Objective MP5	To limit multi-tenancy office development in new buildings through the imposition of a minimum floor area threshold of 1,000 sq m for single office units	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MP6	Where the former Aer Lingus Head Office Building (HOB) is to be refurbished for alternative use, to allow for the full range of office sizes to be accommodated within the existing building. This would facilitate the establishment of incubator or start up enterprises, create a central hub and provide a potential catalyst for further development within Zone 1.	In isolation, could pose likely significant effects on European sites via surface water run-off and foul water discharge. However this refers to refurbishment of an existing development with existing connections to surface and foul water sewers, and when implemented in combination with the other Objectives, and the legal requirement for project level AA Screening, there is no likelihood of significant effects.
Objective MP7	To allow for the accommodation of local service (including cafes and restaurants) and local retail uses at appropriate locations to serve the needs of the local working population, to animate the public realm and active zones and to create a sense of community.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.

Objective MP8	To provide for ancillary car parking generally within the associated multi-storey car parks.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MP9	To have regard to the location of Zone 1 within the Inner Noise Zone and require that buildings are designed to the appropriate standards to mitigate noise impact for occupants and users.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective BDG1	Ensure that all development within the Dublin Airport Masterplan area will be of a high standard of design, to reflect the prestigious nature of an international gateway airport, and its location adjacent to Dublin City.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective BDG2	Encourage and promote the use of contemporary architecture for new developments except where such architecture is incongruous for a particular location.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective BDG3	Require an urban design statement with each planning application for development within the Dublin Airport Masterplan area, to ensure architectural coherence and quality in the Airport area; this shall demonstrate compliance with the approved Dublin Airport Masterplan	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective BDG4	<ul> <li>Submit a detailed design appraisal for developments in excess of 300 sq m of retail/ commercial/ office development in. The design appraisal is required to: <ul> <li>Explain the design principles and design concept</li> <li>Demonstrate how the twelve urban design criteria, as set out in the Fingal County Development Plan, have been taken into account when designing schemes in urban areas. Each of the twelve criteria is of equal importance and has to be considered in an integrated manner</li> <li>Outline how the development meets the Development Plan Objectives, and the objectives of any Local Area Plan, Masterplan, Urban Centre Strategy, Framework Plan or other similar Plan affecting the site</li> <li>Include photographs of the site and its surroundings</li> <li>Include other illustrations such as photomontages, perspectives, sketches</li> <li>Outline detailed proposals for open space and ensure the provision of open space is designed in from the beginning when designing a new scheme</li> </ul> </li> </ul>	Likely to have positive effects on the following and thus resulting in positive effects on European sites: - greenhouse gas emission rates through ensuring energy efficiency and that renewable energy sources are maximised in the design; - water supply and surface water quality through the incorporation of green infrastructure.

	Outline how Green Infrastructure integrates into the scheme.	
Objective BDG5	Ensure that all proposed business and industrial development demonstrates regard to the Design Guidelines for Business Parks and Industrial Areas.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective BDG6	Require that new multi-storey car parks are designed to be of a high architectural standard, be visually unobtrusive, and that environmental considerations are taken into account in all new planning applications for such development.	Not enough specificity on 'environmental considerations' to permit complete assessment, but likely to have positive effects on European sites by ensuring incorporation in new development applications. When implemented in combination with the other Objectives and legal requirement for AA Screening at project level, there is no likelihood of significant effects.
Objective PR1	To ensure that the public realm as a whole, is legible, cohesive, of high quality, and operates as a connected network.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective PR2	To ensure that principles of Green Infrastructure inform the design of the public realm and that the provision of Transition Square and the Green Lung are advanced as critical elements of the Masterplan.	Likely to have positive effects on European sites through protecting surface water quality.
Objective MA1	Promote best practice mobility management and travel planning via sustainable transport modes.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MA2	Require mobility management plans and transport impact assessments to be submitted with a planning application for proposed trip intensive developments.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MA3	Require all developments to be supported by a viable mobility management plan that provides a reliable basis for the achievement of acceptable modal shares for both public and private transport within an appropriate timeframe.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MA4	To restrict any floorspace development at a level above the quantum of 41,677 sq.m of Phase 1 of Zone 1 in advance of a further transportation assessment study.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective MA5	To work with the NTA, other agencies and Dublin Airport to promote land-use planning measures which aim for transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transportation.	Not enough specificity on the extent of 'environmental impacts' to permit complete assessment, but likely to have positive effects on European sites. When implemented in combination with the other Objectives and legal requirement for AA Screening at project level, there is no likelihood of significant effects.
Objective MA5	To ensure that the transportation corridor for any future public transport proposals are safeguarded.	Not enough specificity to permit complete assessment at this level. However, when implemented in combination with the other Objectives and legal requirement for AA Screening at project level, there is no likelihood of significant effects.
Objective UT1	Develop, protect, improve and extend existing utilities and services and	Not enough specificity to permit complete assessment but likely to have a

	to provide these services to facilitate the sustainable development of the Masterplan area proper planning and sustainable development.	positive effect by ensuring that development is sustained by a suitable water supply and sufficient wastewater treatment plant capacity.
Objective UT2	To facilitate energy infrastructure provision, including the development of renewable energy sources at suitable locations, so as to provide for the further physical and economic development of the Masterplan lands.	In isolation could pose likely significant effects on European sites e.g wind turbines and bird strike for Special Conservation Interest bird species for the Special Protection Areas. However when implemented in combination with the other Objectives that mitigate such potential effects and the legal requirement for AA at project level, there is no likelihood of significant effects.
Objective UT3	To ensure that communications infrastructure follows best practice with regard to siting and design.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective UT4	To secure the expansion of high quality infrastructure within the Masterplan lands, in the interests of promoting economic growth and competitiveness.	Not enough specificity to permit complete assessment but likely to have a positive effect by ensuring that development is sustained by a suitable water supply and sufficient wastewater treatment plant capacity. When implemented in combination with the other Objectives and the legal requirement for AA at project level, there is no likelihood of significant effects.
Objective UT5	To work with Irish Water in the development, protection, improvement and extension of the water supply system to facilitate the sustainable development of the Masterplan area in line with the approved Masterplan and the Fingal County Development Plan.	Not enough geographic specificity to permit complete assessment but likely to have a positive effect by ensuring that development is sustained by a suitable water supply.
Objective UT6	To provide a new foul sewer to connect the Masterplan lands to the public foul sewer system on the R132 road.	Not enough geographic specificity to permit complete assessment but likely to have positive effects on European sites through ensuring that development is sustained by a suitable connection to a wastewater treatment plant.
Objective UT7	To provide a holding tank of an agreed volume at the existing Pumping Station on the R132 road.	Likely to have positive effects on European sites through the protection of surface water quality that drains into European sites.
Objective UT8	To liaise and work with Irish Water to ensure that there is adequate capacity within the wastewater collection and treatment system to cater for the proposed development.	Likely to have positive effects on European sites through ensuring that there is sufficient wastewater treatment plant capacity prior to development taking place and hence protecting water surface and coastal water quality.
Objective UT9	To require that development within the Masterplan lands incorporate SUDS (Sustainable Drainage Systems) in the surface water design in line with the GDSDS (Greater Dublin Strategic Drainage Study) Regional Drainage Policies, 2005, Volume 2 New Development and Volume 3 Environmental Management.	Likely to have positive effects on European sites through the protection of surface water quality that drains into European sites.
Objective UT10	To require the provision of additional SuDS devices to cater for the development of the Masterplan lands in line with previous agreements	Likely to have positive effects on European sites through the protection of surface water quality that drains into European sites.

	in relation to run-off rates for new and redeveloped sites.	
Objective UT11	Ensure a Construction Management Plan (CMP) is produced as part of any planning application detailing how surface water run-off, especially in relation to release of silt and other pollutants, will be controlled during construction.	Likely to have positive effects on European sites through the protection of surface water quality and water courses that drain into European sites.
Objective FL1	To require that new development should not itself be subject to an inappropriate risk of flooding nor should it cause or exacerbate such a risk at other locations.	Likely to have positive effects on European sites through the protection of surface water quality that drains into European sites.
Objective FL2	To ensure that a flood risk assessment is carried out for any development proposal, where flood risk may be an issue in accordance with the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoECLG/OPW, 2009). This assessment shall be appropriate to the scale and nature of risk to the potential development.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective EH1	Ensure that green infrastructure and landscape design proposals associated with proposals for development do not lead to the introduction or spread of invasive species.	Likely to have positive effects on European sites through the protection of introduction and release of invasive species via surface water drainage or through other vectors such as soil.
Objective EH2	All proposed development will be subject to Appropriate Assessment Screening and/or Natura Impact Statement, whichever is deemed relevant, to ensure no significant adverse effects on the integrity of any European sites either in isolation or in-combination with other plans and projects, having regard to their conservation objectives.	All individual applications for development will be screened for Appropriate Assessment as a matter of law and developments that pose adverse effects on the integrity of European sites will not be considered under Article 6(3) of the EC. Habitats Directive. Article 6(4) may be applied where applicable.
Objective EH3	To conserve, protect and enhance the architectural heritage and to ensure that new development makes a positive contribution to the historic character of the area.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective EH4	To require archaeological assessment where it is considered a development could have an effect on a recorded monument, zone of archaeological potential or as yet undefined element of archaeological heritage or their setting.	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective N1	To ensure that the Masterplan has regard to relevant measures and actions set out in the "Dublin Environmental Noise Action Plan December 2013-November 2018."	No. Absence of cause-effect linkage between implications of Objective and any likely significant effects on European Sites.
Objective WQ1	To ensure adequate protection of waterbodies adjacent the Masterplan area with the objective of contributing to the improvement in the water quality of these waterbodies as identified in the Water Framework Directive.	Likely to have positive effects on European sites through the protection of surface water quality that drains into European sites.



Objective AQ1	To ensure no significant degradation in the air quality of the Masterplan	Likely to have positive effects on European sites through the protection of air
	or surrounding environment.	quality of the surrounding environment.
Objective C1	To seek to ensure the Masterplan lands contribute to the Dublin	No. Absence of cause-effect linkage between implications of Objective and
	Airport's Sustainability Policies	any likely significant effects on European Sites.