



# CHERRYWOOD

## PLANNING SCHEME

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Appropriate Assessment Screening Report



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# 1 INTRODUCTION

## 1.1 Background

Dún Laoghaire-Rathdown County Council has prepared a draft Planning Scheme for Cherrywood Strategic Development Zone. This Plan will set out objectives and policies which will be used to guide the development of the area.

All land use plans, such as this draft Planning Scheme, must undergo a formal 'test' or be screened to see if they would have likely significant effects on specific sites designated for their nature conservation importance. These sites are those designated under European Commission's Natura 2000 network of sites. 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 this '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 specified in the legislation, 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 draft Planning Scheme complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Scott Cawley Ltd on behalf of Dún Laoghaire-Rathdown County Council has carried out the screening of the draft Scheme to see if it requires an AA. This Report documents the outputs of this process.

## 1.2 Aim of this Report

The aims of this Report are:

- to identify the Natura 2000 network within the "zone of influence" of the proposed Planning Scheme;
- to identify the linkages between the sensitivities of the individual Natura 2000 sites and the implications of the draft Planning Scheme;
- to determine if the implementation of the Strategic Development Zone draft Planning Scheme could result in likely significant effects on the Natura 2000 sites in terms of impacts on their sensitivities (i.e. SCREENING).

# 2 OVERVIEW OF THE STRATEGIC DEVELOPMENT ZONE PLANNING SCHEME

## 2.1 Overall aim

The overall aim of Cherrywood Strategic Development Zone is set out in the Government Order that designated the area as an SDZ. S.I. NO. 535 of 2010, states that Cherrywood SDZ may accommodate:

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

## 2.2 Description of Location

The draft Planning Scheme provides the following description of the SDZ area:

*The Strategic Development Zone lands, of approx. 360 hectares which are located in the administrative area of Dún Laoghaire Rathdown, are the largest undeveloped land bank in the County and one of the most sizable undeveloped areas within the Dublin Metropolitan Area. The lands are located approximately 16km south east from Dublin City Centre, 8 km south of Dún Laoghaire, 3 km from the coastline, and 4 km from the Dublin mountains. There is also an historical connection to the Dublin Mountains, with Cherrywood originally being part of their hinterland, which has been severed somewhat by the completion of the South East Motorway (M50). The lands have a varied landscape and topography, flanked by three valleys; Druids Glen, Brides Glen and the Cherrywood/Loughlinstown River Valley, and the historical ruins of Tully Church identifying the high point/pinnacle of the plan area.*

*The boundaries of the area are characterised by housing along Cherrywood Road, the N11 and Brennanstown Road. The majority of the plan area is undeveloped and rural in context with dispersed housing along Lehaunstown Lane. There is some recent residential development in the form of housing and apartments and an emerging business park, these are located close to the D loop at the Wyattville interchange.*

*The bulk of the lands are located between the N11 (to the north) and the M50 (to the south), with strategic road network connections, and a Quality Bus Corridor along the N11 to the city centre. Public transport infrastructure has been further improved, in recent years, with the extension of the Luas Green Line from Sandyford, providing 5 No. stops within the plan area; Carrickmines, Brennanstown, Laughanstown, Cherrywood and Brides Glen stations/stops.*

Para 2.3.3.

The location of the boundary of the SDZ and the draft Planning Scheme (which slightly differ) are shown in the draft Planning Scheme.

## 2.3 Scope and Structure of the draft Planning Scheme

The draft Planning Scheme is structured in the following way:

- Overall Strategy including the overarching vision for the SDZ.
- Proposed Development in Scheme including primary land uses, scale of development, heights and linkages.
- Built and Cultural Heritage including existing archaeology and protected structures
- Physical Infrastructure including transport, utilities, energy and waste management
- Green Infrastructure
- Development Areas- type, extent and overall design
- Sequencing and Phasing of Development

It is accompanied by several maps showing locations of development areas and infrastructure proposals.

### 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); 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

Sources of information relied upon are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from [www.osi.ie](http://www.osi.ie) and Dún Laoghaire Rathdown County Council.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from [www.npws.ie](http://www.npws.ie)
- Information on water quality in the area available from [www.epa.ie](http://www.epa.ie)
- Information on the River Basin Districts from [www.wfdireland.ie](http://www.wfdireland.ie)
- Information on soils, geology and hydrogeology in the area available from [www.gsi.ie](http://www.gsi.ie)
- *Status of EU Protected Habitats in Ireland.* (National Parks & Wildlife Service, 2008)
- *The Status of Birds in Ireland: An Analysis of Conservation Concern 2008-2013* (Lynas et al, 2007)
- Relevant Development Plans in neighbouring areas.

#### 3.3 Consultation

The Council held a consultation meeting with the National Parks and Wildlife Service on 6<sup>th</sup> April 2011 where the views on the potential issues to be covered in the AA process were informally discussed. These have been taken into account in this report.

### **3.4 Timing of Screening in the Strategic Development Zone Planning Scheme process**

There is no legal requirement as to when the screening of any plan for likely significant effects should take place. Good practice agreed amongst AA professionals is that it should be a relatively brief stage at the beginning of the plan review process. Its aim is to decide if the plan needs to be taken forward to a more detailed level of assessment (Stage 2: Appropriate Assessment or AA) and which Natura 2000 sites may be potentially affected. 'Screening' is not the same as an 'AA' – it only requires sufficient information to decide if a significant effect is likely. An AA – or Stage 2 AA- goes into more detail to test whether those effects could result in damage to the European site.

The Screening stage was undertaken at the stage prior to the preparation of detailed policies in the draft Planning Scheme. This was an ideal stage to start as the Screening process was able to highlight particular sensitivities of Natura 2000 sites and hence help to avoid drafting policies that would have a direct conflict with these sensitivities. Once the draft Planning Scheme was finalised, it allowed the Screening Stage to be completed.

### **3.5 Screening Steps**

The Screening process has investigated whether any of the consequences of implementing the Planning Scheme would be likely to result in significant effects on the Natura 2000 sites in the "zone of influence" of the draft Scheme.

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 Natura 2000 sites within the zone of influence of the draft Planning Scheme and then collecting information as to the Qualifying interests and how site integrity may be defined for each Natura 2000 site. The site-led approach focuses on how the site integrity can be maintained by avoiding impacts on the key environmental conditions. This approach allows issues such as cumulative impacts to be identified.

The Site-led approach is summarised as follows:

1. Which Natura 2000 sites lie within the Cherrywood SDZ Planning Scheme and its zone of influence?
2. What are the qualifying interests for each Natura 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 draft Planning Scheme that could give rise to these threats?

If, based upon the currently available information, there are aspects of the draft Planning Scheme that could affect the Natura 2000 sites then they will require further analysis in the form of a Stage 2: Appropriate Assessment. The outcome of this Screening exercise has been that there are no significant impacts predicted and therefore Stage 2 is not deemed necessary.

## 4 IDENTIFICATION OF NATURA 2000 SITES

### 4.1 Zone of influence

Whilst a site-led approach is regarded as being best-practice, it is important to set an appropriate zone of influence based upon the nature of the Plan being assessed. The principle factors affecting the size of the zone are resource-use and waste production. Cherrywood SDZ will involve use of resources and production of wastes at a County-level (water supply, energy and waste production). Therefore the zone of influence will include Natura 2000 sites within a considerable distance of the SDZ boundary. In accordance with the Department of Environment, Heritage and Local Government guidance (DoEHLG, 2010), an initial distance of 15km from the draft Planning Scheme boundary was selected for consideration of Natura 2000 sites. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the draft Planning Scheme on Natura 2000 sites. Spatial boundary data on the Natura 2000 network were extracted from the NPWS website on 7<sup>th</sup> November 2011.

All Natura 2000 sites which fall within 15km of the draft Planning Scheme are listed in Table 1 below. Table 2 lists the non-Natura 2000 sites.

**Table 1: Natura 2000 sites found in the Cherrywood SDZ Planning Scheme and within 15km buffer zone.**

| <b>Sites within the Cherrywood Strategic Development Zone</b>         |   |
|---|---|
| <b>Candidate Special Areas of Conservation</b>                        | <b>Special Protection Areas</b>                                       |
| <b>None</b>   | <b>None</b>   |
| <b>Sites within 15km of the Cherrywood Strategic Development Zone</b> |   |
| <b>Candidate Special Areas of Conservation</b>                        | <b>Special Protection Areas</b>                                       |
| Ballyman Glen - 3km south   | Dalkey Islands - 4km east   |
| Knocksink Woods - 3.3km south   | (South Dublin Bay) Sandymount Strand / R. Tolka Estuary - 4.4km north |
| South Dublin Bay - 4.4km north  | Wicklow Mountains - 5.2km south west                                  |
| Wicklow Mountains - 5.2km south west                                  | North Bull Island - 9.8km north                                       |
| Bray Head- 6.4 km south east  | Howth Head Coast - 13km north   |
| North Dublin Bay -9.8km north   |   |
| Glen of the Downs - 10.4km south                                      |   |
| Glenasmole Valley - 11.3km west                                       |   |
| Howth Head - 13km north   |   |
| Carrigower Bog - 13.8km south   |   |

Table 1 above shows that there are no Natura 2000 sites within the SDZ and draft Planning Scheme boundary. The nearest site is located at Ballyman Glen (cSAC), approximately 3km south of the SDZ lands. The nearest SPA is located 4km east at the Dalkey Islands.

All of these sites are presented on Figure 1.

### 4.2 Examination of non-Natura 2000 sites.

In addition to examining Natura 2000 sites, Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHA) which fall within 15km of the draft Planning Scheme have also been examined. Although NHAs and pNHAs do not form part of the Natura 2000 Network, they often provide an important supporting role to the network,

particularly when it comes to fauna species which often do not obey site boundaries. For example, a pNHA/NHA that provides regular feeding grounds for a population of Golden Plover for which a separate site is designated as a SPA plays a role in the maintenance of the species at favourable conservation status for that SPA. In other words, in that example, in order to protect the Natura 2000 network it may also be important to protect the pNHA /NHA which provides a supporting role to it. These supporting roles are discussed in Section 5.

**Table 2: Natural Heritage Areas and Proposed Natural Heritage Areas found in the Cherrywood SDZ draft Planning Scheme and within 15km buffer zone.**

| <b>Sites within the Cherrywood Strategic Development Zone</b>         |                               |
|---|-------------------------------|
| <b>Proposed Natural Heritage Areas</b>                                | <b>Natural Heritage Areas</b> |
| <b>None</b>   | <b>None</b>                   |
| <b>Sites within 15km of the Cherrywood Strategic Development Zone</b> |                               |
| <b>Proposed Natural Heritage Areas</b>                                | <b>Natural Heritage Areas</b> |
| Loughlinstown Wood - 0.03km east                                      | <b>None</b>                   |
| Dingle Glen - 0.4km west  |                               |
| Dalkey Coastal Zone & Killiney Hill - 1.5km east                      |                               |
| Ballybetagh Bog - 2.7 km south  |                               |
| Fitzsimon's Wood - 3.6km west   |                               |
| Dargle River Valley -5.5km south                                      |                               |
| Powerscourt Woodland - 5.7km south                                    |                               |
| Powerscourt Waterfall - 6km south                                     |                               |
| Great Sugar Loaf - 6.3km south  |                               |
| Glencree Valley -8.9km south  |                               |
| Kilmacanoge Marsh -9.1km south  |                               |
| Dolphins, Dublin Docks - 9.7km north                                  |                               |
| Grand Canal 10.8km - south  |                               |
| Dodder Valley - 11.km north west                                      |                               |
| Royal Canal 11.3km - south  |                               |
| The Murrough - 14.3km south   |                               |

Table 1 above shows that there are no pNHA or NHA sites within the SDZ or draft Planning Scheme boundaries. The nearest pNHA is located at Loughlinstown Woods on the eastern side of the N11 dual carriageway. There are no Natural Heritage Areas within 15km of the draft Planning Scheme or SDZ lands.

## **5 ECOLOGICAL NETWORK SUPPORTING NATURA 2000 SITE INTEGRITY**

An analysis of the proposed Natural Heritage Areas and adopted Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. It is assumed that these supporting roles mainly relate to mobile fauna such as mammals and birds which may use pNHAs and NHAs as "stepping stones" between Natura 2000 sites.

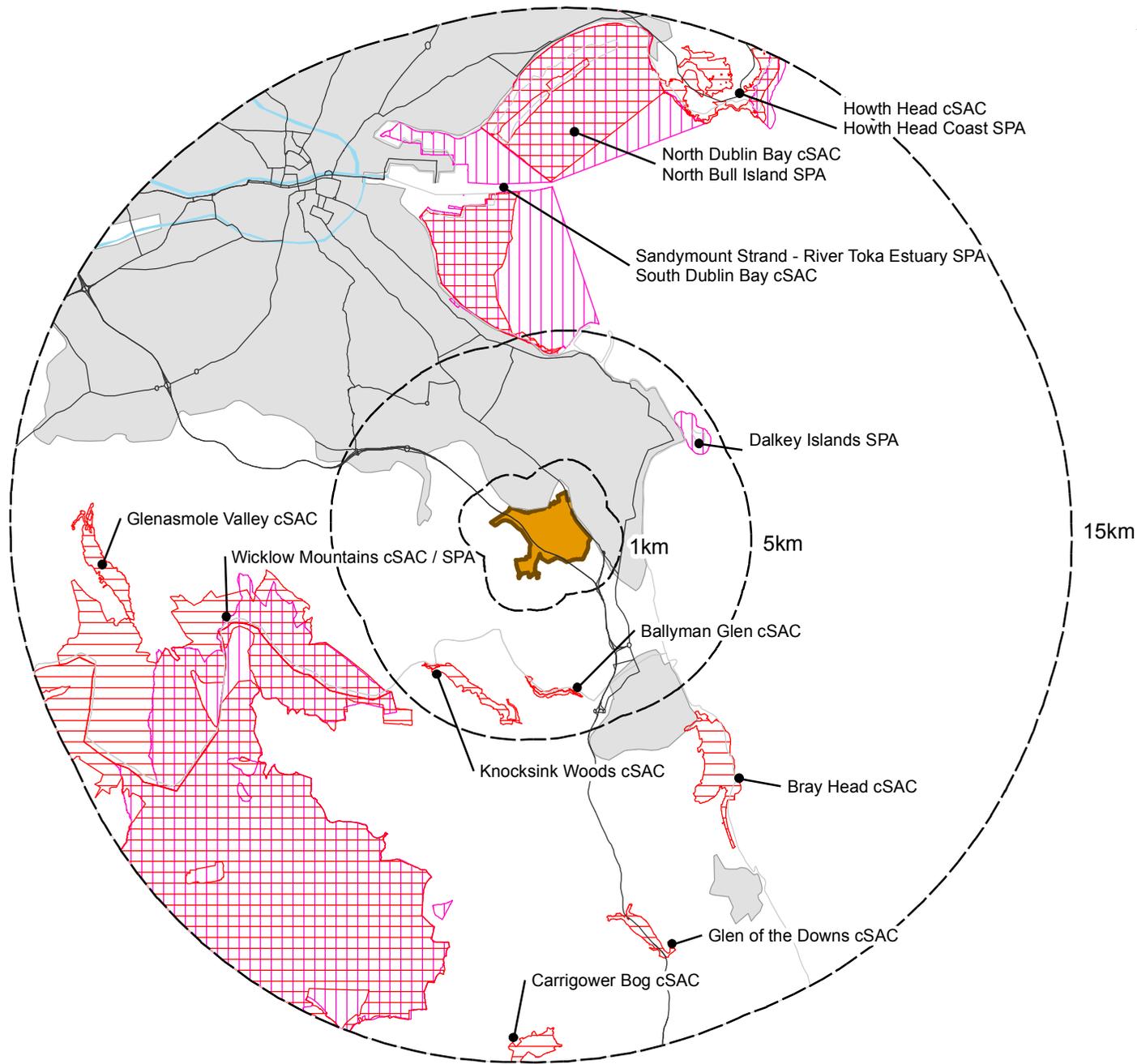
**Table 3 Possible Non-Natura 2000 designated sites that may support the Natura 2000 network.**

| <b>Name of Proposed Natural Heritage Area/Natural Heritage Area.</b> | <b>Feature and Habitat Used by Feature</b>                    | <b>Natura 2000 Site potentially linked to the pNHA/NHA Supported</b> |
|--|---|--|
| Dodder Valley  | Kingfisher associated with the river system and natural river | -  |

|                       |                                |   |
|-----------------------|--------------------------------|---|
|                       | vegetation.                    |   |
| Powerscourt Waterfall | Killarney Fern                 | -   |
| Great Sugar Loaf      | Dry heath and upland grassland | Wicklow Mountains SPA (Merlin & Peregrine Falcon) |
| Royal Canal           | Otter- canal habitat           | -   |
| Grand Canal           | Otter – canal habitat          | -   |

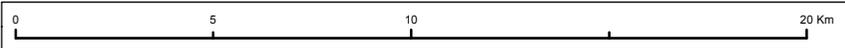
Therefore it has been noted that any potential for impacts on the Great Sugar Loaf could potentially lead to impacts on the Wicklow Mountains SPA.

N



### Legend

- Roads
- Buffer Zones
- County Border
- Rivers
- cSAC
- SPA
- Urban
- Cherrywood SDZ



|                    |  |                 |    |
|--------------------|--|-----------------|----|
| <b>Title</b>       | Figure 1: Natura 2000 sites in respect of the Cherrywood SDZ |                 |    |
| <b>Project</b>     | Cherrywood SDZ Planning Scheme                               |                 |    |
| <b>Project No.</b> | 110033   |                 |    |
| <b>Client</b>      | Dun Laoghaire-Rathdown Co. Co.                               |                 |    |
| <b>Date</b>        | 12/11/2011   | <b>Revision</b> | 00 |



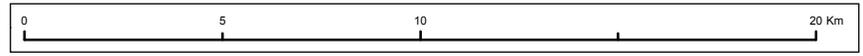
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### Legend

- Roads
- Buffer Zones
- pNHA
- NHA
- Country
- Rivers
- Urban Clip
- Cherrywood SDZ



|                    |   |                 |    |
|--------------------|---|-----------------|----|
| <b>Title</b>       | Figure 2: pNHAs & NHAs in respect of the Cherrywood SDZ Planning Scheme |                 |    |
| <b>Project</b>     | Cherrywood SDZ Planning Scheme  |                 |    |
| <b>Project No.</b> | 110033  |                 |    |
| <b>Client</b>      | Dun Laoghaire-Rathdown Co. Co.  |                 |    |
| <b>Date</b>        | 11/12/2011  | <b>Revision</b> | 00 |



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## **6 REASONS FOR DESIGNATION, SITE SENSITIVITIES AND THREATS**

In order to identify those sites that could be potentially affected by the draft Planning Scheme, it is necessary to describe the Natura 2000 site in the context of why it has been designated (its qualifying interests) and the environmental and ecological conditions that maintain the condition of the Natura 2000 site. The qualifying interests and threats to the site were extracted from the NPWS website database and from consultation with the National Parks and Wildlife Service.

The results of this desktop exercise are presented in Appendix A. The key output of this stage is the identification of the types of threats to the integrity of the Natura 2000 sites. These can then be related to the consequences of implementing the SDZ Planning Scheme to see if there is a risk of any likely significant effects.

The following threats have been identified:

### **Agricultural activities**

- Agricultural Intensification;
- Fertilisation;
- Grazing, (undergrazing /overgrazing);
- Restructuring agricultural land holdings;
- Forestry (afforestation/deforestation);
- Stock Feeding;
- Drainage/flooding;
- Offshore/onshore aquaculture;
- Pesticides.
- Peat Extraction

### **Economic and Infrastructural Development**

- Golf Courses;
- Roads, motorways;
- Coastal protection works;
- Treated/untreated sewage outflows;
- Treated/untreated stormwater runoff;
- Abstraction for Water supply;
- Housing developments;
- Communications Networks (overhead lines);
- Quarries;
- Canalisation/River Channel Maintenance;
- Disposal of household waste;
- Introduction/spread of Invasive Alien Species.

### **Recreation and Leisure**

- Walking, horse riding and non-motorised vehicles;
- Water sports;
- Bait Digging;
- New Paths and Tracks.

## **7 IDENTIFICATION OF POTENTIAL IMPACTS**

### **7.1 Methodology**

Each of the potential threats to the Natura 2000 sites have been examined in turn and the following question asked:

*"Is there any risk that the implementation of the Planning Scheme could lead to this threat?"*

The response to this question is presented below following a detailed examination of the Planning Scheme and discussions with Dún Laoghaire-Rathdown County Council.

It can be seen in some places that the design of the draft Planning Scheme has pre-empted the potential for likely significant effects and has addressed them accordingly. The screening of the draft Planning Scheme does not take into account any mitigation measures that may be applied when individual projects are applied that could further address impacts on ecological receptors.

In making these judgements, each Natura 2000 site is examined for a potential source-pathway-receptor link. In ecological and environmental impact assessment, for an impact to occur there must be a risk enabled by having a 'source' (e.g. works during the construction of individual aspects of the Scheme), a 'receptor' (e.g. a Natura 2000 site or a supporting pNHA or NHA), and a pathway between the source and the receptor (e.g. a watercourse which connects the draft Planning Scheme lands to a Natura 2000 site).

The risk of the impact does not automatically mean it will occur, or that it will be significant. However, identification of the risk does mean that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

The screening process at the SDZ Planning Scheme does not remove the need to carry out screening at the planning application stage. However, screening of planning applications for the need to carry out AA should take the conclusions of this Screening into account.

### **7.2 Relationship between the draft Planning Scheme and Natura 2000 sites.**

Table 4 below sets out the relationship between the proposed Strategic Development Zone Planning Scheme and the threats to the key environmental conditions as set out above.

**Table 4: Relationship between the proposed Strategic Development Zone draft Planning Scheme and the threats to the key environmental conditions.**

| <b>Threat</b>                            | <b><i>"Is there any risk that the implementation of the Planning Scheme could lead to this threat?"</i></b>   |
|--|---|
| <b>Agricultural activities</b>           |   |
| Agricultural Intensification             | There are no elements of the draft Planning Scheme that would be anticipated to give rise to agricultural intensification.  |
| Fertilisation                            | There are no elements of the draft Planning Scheme that would be anticipated to give rise to fertilisation of lands within Natura 2000 sites.   |
| Grazing, (undergrazing /overgrazing)     | There are no elements of the draft Planning Scheme that would be anticipated to give rise to changes in grazing regimes.  |
| Restructuring agricultural land holdings | There are no elements of the draft Planning Scheme that would be anticipated to give rise to restructuring of rural land holdings.  |
| Forestry (afforestation/deforestation)   | There are no elements of the draft Planning Scheme that would be anticipated to give rise to forestry project or removal of forestry within or near Natura 2000 sites.  |
| Stock Feeding                            | There are no elements of the draft Planning Scheme that would be anticipated to give rise to changes in feeding of stock within or near Natura 2000 sites.  |
| Drainage/flooding                        | The draft Planning Scheme has identified areas prone to flooding and has integrated flood control measures and flood relief features into the SDZ. In addition there are no elements of the draft Planning Scheme that would be anticipated to give rise to flooding or changes in Natura 2000 sites. |
| Offshore/onshore aquaculture             | There are no elements of the draft Planning Scheme that would be anticipated to give rise to aquaculture activities.  |
| Pesticides.                              | Whilst there will be a need to use pesticides within pest control and invasive species control programmes as a result of the draft Planning Scheme, there are no identified pathways between the SDZ lands and the Natura sites that would allow pesticides to reach sensitive ecological receptors.  |
| Peat Extraction                          | There are no elements of the draft Planning Scheme that would be anticipated to give rise to peat extraction within Natura 2000 sites.  |
| <b>Economic and Infrastructural</b>      |   |

| <b>Development</b>                  |  |
|-------------------------------------|--|
| Golf Courses                        | There are no elements of the draft Planning Scheme that would be anticipated to give rise to new Golf Course developments within or near Natura 2000 sites. There are five Golf Courses located within 5km of the SDZ lands.   |
| Roads, motorways                    | There are no elements of the draft Planning Scheme that would be anticipated to give rise to additional roads within or near Natura 2000 sites. Impacts on local transport routes are detailed in the Planning Scheme and the Environmental Report and are not deemed to affect Natura 2000 sites.   |
| Coastal protection works            | There are no elements of the draft Planning Scheme that would be anticipated to give rise directly or indirectly to any works at the coast.  |
| Treated/untreated sewage outflows   | Sewage produced by development will be piped to the Shanganagh Wastewater Treatment Plant where it will undergo treatment before being discharged to sea. The treatment plant is undergoing an upgrade that will be completed in 2012. The design capacity for the upgraded plant will be 186,000 PE which is able to accommodate the increase in population as a result of the draft Planning Scheme. The treated effluent does not discharge into any Natura 2000 site. Therefore there is no risk that the implementation of the draft Planning Scheme will result in any impact on Natura 2000 sites.  |
| Treated/untreated stormwater runoff | The surface water runoff from development areas within the SDZ will be managed according to SUDS principles and hence there will be minimal impact on the hydrological balance in the catchment of the two rivers draining the area. The Shanganagh River, which drains the site, does not drain into any Natura 2000 sites. Therefore there is no risk that the implementation of the draft Planning Scheme will result in any impact on Natura 2000 sites.   |
| Abstraction for Water Supply        | <p>The draft Planning Scheme details the nature of the existing and proposed phasing if a water supply is required to implement the draft Planning Scheme.</p> <p>The local water distribution network within the zone will need to be installed in a co-ordinated manner to facilitate orderly development. The area is totally reliant on Roundwood Water Treatment Works which delivers water into Stillorgan reservoir for Dublin City while supplying much of the coastal area of North Wicklow and DLRCC en-route through two of DCC's arterial watermains. This supply is expected to diminish in the face of increasing needs elsewhere. The solution for the SDZ may lie in a regional approach to increasing the supply to Roundwood works or Rathmichael reservoirs but at present this poses a constraint to development but is not an existing threat to any of the Natura 2000 sites in the region.</p> <p>A preliminary design for a major water storage and distribution scheme, the Old Connaught Woodbrook Water Supply Scheme (OCWWSS), has been prepared by DLRCC and covers the local supply requirements for all development in the South East of DLRCC area including Cherrywood. The full development of the SDZ would require completion of this scheme. However, a significant proportion of the development might progress with a phased implementation of the water scheme. Part of the overall strategy may involve (<u>but is not reliant on</u>) the construction of a new reservoir at Ballyman which is near the Ballyman Glen cSAC. Any proposal for a reservoir in this location would require screening for appropriate assessment to ensure that there would not be any impact on the qualifying interests. Based upon current information, the water supply could constrain the timing</p> |

|   |   |
|---|---|
|   | of the delivery of the Planning Scheme but there is no evidence that there is any risk of impacts on Natura 2000 sites as development could not occur in the absence of a water supply.   |
| Housing developments                              | There are no elements of the draft Planning Scheme that would be anticipated to give rise directly or indirectly to any housing developments that would in turn impact on Natura 2000 sites.  |
| Communications Networks (overhead lines)          | There are no elements of the draft Planning Scheme that would be anticipated to give rise directly or indirectly to overhead lines, pipelines or other communications networks within or near Natura 2000 sites.  |
| Quarries  | There are no elements of the draft Planning Scheme that would be anticipated to give rise directly or indirectly to the establishment or expansion of quarries that have impacts on Natura 2000 sites. Any expansion of quarries that could have impacts on Natura 2000 sites are also required to undergo an appropriate assessment prior to being given permission to expand.   |
| Canalisation and River Channel Maintenance        | Whilst there will be diversion of the Ticknick stream and works to the Carrickmines River, this is not within or near any Natura 2000 site. There are no elements of the Planning Scheme that would be anticipated to give rise directly or indirectly to river works in any Natura 2000 sites.   |
| Disposal of household waste                       | Disposal of household waste refuse is addressed in the draft Planning Scheme. Waste will be transported out of the County to landfill sites to the north of Dublin. These waste disposal sites are not deemed to be threats to the Natura sites nearby. Under the draft Planning Scheme, development will only be allowed to take place if there is sufficient waste disposal capacity at these facilities. The need for more waste disposal sites and the choice of location and subsequent impact on Natura sites will be addressed at the project level. |
| Introduction/spread of Invasive Alien Species.    | Several invasive species are present within the SDZ lands. The draft Planning Scheme incorporates obligations on developers to remove invasive species as part of their proposed development. The only species that have the potential to naturally spread is Giant Hogweed and this would be very unlikely to spread to the cSAC at Ballyman that could be sensitive to this species, as there are no known pathways between the SDZ lands and this Natura 2000 site.  |
| <b>Recreation and Leisure</b>                     |   |
| Walking, horse riding and non-motorised vehicles; | The draft Planning Scheme will introduce a large increase in the local population that have needs for recreation and amenity. The design of the Scheme has allowed the retention of large areas of "Natural Greenspace" that will provide areas for dog-walking, running, walking and other exercise within the boundary of the Scheme. Over 60ha of lands have been provided for active and passive recreation. It is anticipated that there will be no extra demands placed on sensitive sites outside of the SDZ lands.                                  |
| Watersports;                                      | The demand for watersports cannot be met within the site due to the absence of large waterbodies. However any expansion of watersports facilities would be subject to its own screening for appropriate assessment and this acts as a safety mechanism to ensure that there will be no significant effects on these coastal Natura 2000 sites. There are no elements of the Planning Scheme that would be anticipated to give rise directly or to the establishment or expansion of watersports.  |

|                       |   |
|-----------------------|---|
| Bait Digging;         | There are no elements of the draft Planning Scheme that would be anticipated to give rise directly or indirectly to bait digging at Natura 2000 sites.                                      |
| New Paths and Tracks. | There are no elements of the draft Planning Scheme that would be anticipated to give rise directly or indirectly to new paths or tracks being constructed within or near Natura 2000 sites. |

### 7.3 Conclusions

This section has shown that there are no elements of the draft Planning Scheme that could, on their own, lead to a risk of significant impacts on Natura 2000 site. The SDZ does not contain any Natura 2000 sites nor is it not directly linked to any Natura 2000 site by rivers or ecological corridors.

## **8 CONSIDERATION OF OTHER PLANS AND PROJECTS**

### **8.1 Approach**

This section has shown that there are no elements of the draft Planning Scheme that could, on their own, lead to a risk of significant impacts on Natura 2000 site. However the process of screening and the requirements of Article 6(3) of the EC Habitats Directive require an examination to see if the draft Planning Scheme could act in combination with any other plans or projects to have a likely significant effect on Natura 2000 sites. Since it has been concluded that the draft Planning Scheme on its own will not have interaction with Natura 2000 sites it is not strictly deemed necessary to look at the impacts of other plans and projects as these will be occurring independently of the SDZ. Nevertheless an overview of these other plans acting in the same theatre as the draft Planning Scheme is discussed below

### **8.2 Relevant plans**

The draft Planning Scheme must comply with higher level strategic actions and will, in turn, guide lower level decisions such as approving or refusing planning applications. Section 2.4 of the Environmental Report for the draft Planning Scheme lists the other relevant plans and programmes as being the following (sections taken from Environmental Report in italics):

#### **8.2.1 National Spatial Strategy 2002-2020**

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

Whilst it did not undergo any formal appropriate assessment under the Habitats Directive, its relevance to the protection of Natura sites is embodied within several references to protection of protected species and habitats. Assuming that all plans and projects under the NSS comply with its provisions then there would be no impacts on Natura 2000 sites.

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

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

It does not seem to have undergone any type of appropriate assessment and it does not seem to directly link to projects that could impact on Natura 2000 sites. It is not anticipated that there is a risk of interacting with any of the aspects of the Planning Scheme that would affect the conclusions made earlier.

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

*This Draft Transport Strategy of the National Transport Authority establishes appropriate policies and transport measures that will support the Greater Dublin Area in meeting its potential, as a competitive, sustainable city- region with a good quality of life for all. By improving the public transport network, limited strategic*

*road building and demand management measures to meet the targets of Smarter Travel.*

An appropriate assessment/Habitats Directive Assessment was carried out and noted potential for impacts on Bray Head cSAC, South Dublin Bay cSAC and Sandymount Strand / Tolka Estuary SPA. Where necessary, provisions were made for protecting these sites at project-level. It is not anticipated that there is a risk of these proposals interacting with any of the aspects of the Planning Scheme that would affect the conclusions made earlier.

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

*Regional planning authorities are required, under the Planning and Development (Regional Planning Guidelines) Regulations 2003 (SI No. 175 of 2003), to draw up Regional Planning Guidelines (RPGs), long term strategic planning frameworks, for their relevant region. Cherrywood is located within the Greater Dublin Region for which the Greater Dublin RPGs have been prepared by the Dublin and Mid-East Regional Authorities.*

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

An appropriate assessment was carried out and provides a basis for many of the conclusions made in this Screening Report. The following mitigation measures are highlighted as they interact with or set a precedent for the approach taken in the Cherrywood SDZ Planning Scheme:

*GIP2; SR5: Ensure that development takes place in tandem with the provision of appropriate services such as transport, water supply or treatment. Development in the absence of investment in infrastructure will have negative consequences on the environment and should be avoided.*

*GIP2; SR6; PIR20: Ensure that settlement strategies and housing developments do not takes place until sufficient infrastructure is put in place to facilitate the proposed development and prevent any significant impact on the integrity of the Natura 2000 site. This is particularly important in the area of waste water treatment.*

#### **8.2.5 Dún Laoghaire-Rathdown County Development Plan 2010-2016**

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

The screening for appropriate assessment carried out for the County Development Plan concluded that "no projects that will cause significant adverse direct, indirect or secondary impacts on the integrity of any Natura 2000 sites shall be permitted on the basis of this Plan (either individually or in combination with other plans or projects)". This statement has been reinforced within the Screening of the SDZ draft Planning Scheme and therefore it is not anticipated that there is a risk of other

aspects under the County Development Plan interacting with any of the aspects of the draft Planning Scheme that would affect the conclusions made earlier.

## 9 CONCLUSIONS

The Screening process has identified that several Natura 2000 sites lie within the zone of influence of the draft Cherrywood SDZ Planning Scheme. None of these Natura 2000 sites are deemed to be at risk of likely significant effects of implementing the draft Planning Scheme. This conclusion has been reached by an analysis of the qualifying interests in the sites and what physical conditions are required to maintain their conservation status. The location of the SDZ lands within catchments detached from any Natura 2000 sites and the absence of any connecting terrestrial or aquatic pathways to these sites has been taken into account. The contribution of other plans in the same area has also been acknowledged in this screening exercise.

## 10 REFERENCES

Department of the Environment, Heritage and Local Government (2010) Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, Rev Feb 2010)

Dún Laoghaire-Rathdown County Council (2010). Dún Laoghaire-Rathdown County Development Plan 2010-2016.

Dún Laoghaire-Rathdown County Council (2009). Treasuring our Wildlife Dún Laoghaire-Rathdown Biodiversity Plan 2009-2013.

Dún Laoghaire-Rathdown County Council (2009). Parklife A Policy for enhancing Biodiversity in Parks and Green Spaces. An action of the Dún Laoghaire-Rathdown Biodiversity Plan 2009-2013.

Dún Laoghaire-Rathdown County Council (2008). Green City Guidelines: Advice for the protection and enhancement of biodiversity in medium to high-density urban developments. UCD, Dublin.

Eastern River Basin District (2009) South-eastern River Basin District Management Plan 2009, Available online at <http://www.wfdireland.ie/docs/> [Accessed 26 July 2011]

European Commission (2000). Communication from the Commission on the precautionary principle

European Commission (2001) 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,);

European Commission (2000) Managing Natura 2000 sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereinafter referred to as "MN2000"

Environmental Protection Agency (2011). EPA ENVision Service (internet-based environmental information portal). Available online at: <http://maps.epa.ie/internetmapviewer/mapviewer.aspx> [Accessed 26 July 2011]

Geological Survey of Ireland (2011). GSI Datasets Public Viewer. Available online at <http://www.gsi.ie/Mapping.htm> [Accessed 28 March 2011]

Institute of Ecology and Environmental Management (2006). Guidelines for Ecological Impact Assessment. Institute of Ecology and Environmental Management

National Parks & Wildlife Service (2008). Status of EU Protected Habitats in Ireland

NPWS Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, March 2010);

National Roads Authority (NRA) 2009. Guidelines for Assessment of Ecological Impacts of National Road Schemes.

NRA 2005-2009. Environmental Construction Guidelines Series, available online at <http://www.nra.ie/Publications/Environment/#d.en.3463> [Accessed December 2010]

**Appendix A: Natura 2000 sites, their reasons for designation, sensitivities and threats.**

| Site name                                      | Site Number | Qualifying Interests  | Conservation Status | Key environmental conditions supporting site integrity  | Threats to Key Conditions   |
|--|-------------|---|---------------------|---|---|
| <b>CANDIDATE SPECIAL AREAS OF CONSERVATION</b> |             |   |                     |   |   |
| Ballyman Glen                                  | IE0000713   | Alkaline fens   | Unfavourable-Bad    | High water table. Ground/surface water supply. Calcium-rich, nutrient-rich conditions.                        | Agriculture & Land Reclamation, Drainage, Turf Cutting, Afforestation   |
| Knocksink Woods                                | IE0000725   | Petrifying springs with tufa formation (Cratoneurion)   | Unfavourable-Bad    | Calcium-rich, nutrient poor groundwater/surface water supply.   | Grazing, Invasive Species, Drainage, Planting of non-native conifers, felling of native tree species  |
|  |             | Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) |                     | Riparian/lacustrine habitat prone to flooding   |   |
| South Dublin Bay cSAC                          | [000210]    | Mudflats and sandflats not covered by seawater at low tide [1140]   | Poor                | Water quality. Absence of Disturbance   | Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, industrialisation, Invasion by a species, oil pollution.  |
| Wicklow Mountains                              | IE0002122   | Otter <i>Lutra lutra</i>  | Inadequate          | Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways. | Water Pollution, Mortalities/Illegal Killings, Recreation/Disturbances, Hydroelectric Schemes, Aquaculture/fisheries, Oil spillages, American Mink; Specific Threats - River/Wetland drainage, Organic/Industrial Pollution |
|  |             | Blanket bog (*active only)  | Bad                 | Species Composition, Hydrological integrity, Structural integrity, rainfall                                   | Grazing, General Forestry Management, Burning, Peat Extraction, Dispersed habitation, Development, Powerlines, Walking, horse-riding, non-motorised vehicles, Climate change, Drainage, Erosion, Invasive Species           |
|  |             | Northern Atlantic wet   | Unfavourable-Bad    | <i>Erica tetralix</i> , <i>Calluna</i>  | Drainage, Burning, Land Reclamation,  |

|  |  |  |                         |  |  |
|--|--|--|-------------------------|--|--|
|  |  | heaths with <i>Erica tetralix</i>  |                         | <i>vulgaris</i> , areas of damp-moist peat, peat which generally vary between 30 cm and 80 cm in depth                                     | Erosion, Overgrazing by sheep, Climate change, Forestry, Windfarm Development, Forestry Planting, Roadway, motorways, Invasive Species, Large scale industrial development |
|  |  | European dry heaths  | Unfavourable-Inadequate | Free-draining nutrient poor acid soils. Grazing and burning.   | Agricultural Improvements, Removal of Scrub, Cultivation, Fertilisation, Over Grazing by sheep, Burning, Invasion by Species, Vandalism,                                   |
|  |  | Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles  | Unfavourable-Bad        | Habitat fragmentation, Natural regeneration, Stand structure, Dead wood, Associated Fauna  | tree felling, inappropriate grazing levels, invasive species, road schemes and housing developments  |
|  |  | Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> )                           | Unfavourable-Inadequate | Accumulations of loose or broken siliceous rock, less than 50% vegetation cover  | Air Pollution(Acidification); Mining & Extraction (Removal of Scree); Overgrazing; Outdoor Recreation (Erosion of Habitat)   |
|  |  | Natural dystrophic lakes and ponds   | Unfavourable-Bad        | pH is often low, 3 to 6. Plant communities belong to the order <i>Utricularietalia</i>   | Grazing, Restructuring agricultural land holding, General Forestry management, Burning, Mechanical removal of peat, Drainage   |
|  |  | Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> | Unfavourable-Bad        | Low in nutrients, base-poor and acidic Lake  | Fertilisation, Grazing, General Forestry management, Peat Extraction, Dispersed habitation, Sport and leisure structures, Pollution, Invasive species                      |
|  |  | Siliceous rocky slopes with chasmophytic vegetation  | Unfavourable-Inadequate | Altitude 350-450 metres, assemblages of alpine plants of rocky slopes located on the more or less vertical, bare, north-east facing cliffs | Air Pollution(Acidification); Mining & Extraction (Removal of Scree); Overgrazing; Outdoor Recreation (Erosion of Habitat)   |
|  |  | Calcareous rocky slopes with chasmophytic vegetation   | Unfavourable-Inadequate | Calcareous scree; plant associations; <i>Polysticho-Asplenietum viridis</i> ; <i>Philonotido fontanae-Saxifragetum stellaris</i> ;         | Overgrazing, Quarries, Outdoor Recreation  |

|           |           |   |                         |   |   |
|-----------|-----------|---|-------------------------|---|---|
|           |           |   |                         | <i>Saxifragetum aizoidis</i> ;<br><i>Breutelia-Seslerietum</i> ;<br><i>Arctostaphylo-Dryadetum</i> ;<br><i>Lycopodio-alpini</i> -<br><i>Rhacomitrietum lanuginosi</i>   |   |
|           |           | Alpine and Boreal heaths  | Unfavourable-Inadequate | 350-450 metres; assemblages of alpine plants, ( <i>Lycopodio-alpini</i> - <i>Rhacomitrietum lanuginosi</i> ; <i>Achilleo-Festucetum tenuifoliae</i> ; <i>Nardo-Caricetum binervis</i> )   | Abandonment of Pastoral Systems – in the Burren; Overgrazing; Burning; Quarries; Infrastructure development; Outdoor Recreation; Pollution; Air pollution – acidification –from acid rain           |
|           |           | Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and sub mountain areas, in Continental Europe) | Unfavourable-Bad        | Sloping, acidic soils   | agricultural intensification; agricultural abandonment; afforestation   |
| Bray Head | IE0000714 | Flat topography on coastal cliff bedrock. High pH influence of sands and seabird guano                                    | Unfavourable-Inadequate | Flat topography on coastal cliff bedrock. High pH influence of sands and seabird guano  | Fertilisation, Grazing, Overgrazing, Restructuring agricultural land holding, Burning, Disposal of household waste, Golf Course, Trampling overuse, Sea defences/ coastal protection works, Erosion |
|           |           | Free-draining nutrient poor acid soils. Grazing and burning.  |                         | Free-draining nutrient poor acid soils. Grazing and burning.  | Agricultural Improvements, Removal of Scrub, Cultivation, Fertilisation, Over Grazing by sheep, Burning, Invasion by Species, Vandalism,  |
|           |           | Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> )                             | Bad                     | Presence of Indicator Species of ( <i>Molinion,repis paludosa</i> and <i>Caltha palustris</i> , <i>Carex panicea</i> , <i>Potentilla erecta</i> , <i>Calliergonella cuspidata</i> , <i>Trifolium pratense</i> , <i>Carex flacca</i> , <i>Centaurea nigra</i> and <i>Rhinanthus minor</i> ), calcareous peaty or clayey-silt laden soils | Abandonment of pastoral systems, Drainage, Grazing (cessation), Agricultural improvement  |

|                  |           |   |                         |  |   |
|------------------|-----------|---|-------------------------|--|---|
|                  |           | Petrifying springs with tufa formation (Cratoneurion)       | Unfavourable-Bad        | Calcium-rich, nutrient poor groundwater/surface water supply.  | Agriculture & Land Reclamation, Drainage, Turf Cutting, Afforestation   |
| North Dublin Bay | IE0000206 | Annual vegetation of drift lines                            | Unfavourable-Inadequate | Sandy substrate. Physical impact and nutrient supply from tidal flow.                                | Grazing, Sand & Gravel extraction - Removal of Beach materials, Walking horse riding - non motorised vehicles, outdoor sports & motorised vehicles, other leisure & tourism impacts, Trampling overuse, sea defences & coastal protection works   |
|                  |           | Atlantic salt meadows (Glauco-Puccinellietalia maritimae)   | Unfavourable-Inadequate | Frequency of tidal submergence   | Grazing, Infilling & Reclamation, Invasive Species, Erosion & Accretion   |
|                  |           | Embryonic shifting dunes                                    | Unfavourable-Inadequate | Dune-building grasses <i>Elytrigia juncea</i> and <i>Leymus arenarius</i> . Supply of windblown sand | Erosion, Walking horse riding and non-motorised vehicles, Trampling overuse, Sea defence or coastal protection works  |
|                  |           | Fixed coastal dunes with herbaceous vegetation (grey dunes) | Unfavourable-Bad        | Low wind, weakly saline conditions In shelter of <i>Ammophila arenaria</i> dunes. Grazing.           | Erosion, Walking horse riding and non-motorised vehicles, Grazing, Undergrazing, Invasion by a species, Trampling, Overuse, Camping/Caravans, Agricultural Improvement/Restructuring agricultural land holdings, Stock Feeding, Motorised Vehicles, Paths Tracks & Cycling Routes, Golf Courses, Fertilisation, Sea defences or coastal protection works, |
|                  |           | Humid dune slacks   | Unfavourable-Bad        | High water maintained by groundwater and impermeable soils. Grazing. Salinity.                       | Agricultural Improvement, Fertilisation, Grazing, Restructuring agricultural land holding, Forestry, Stock Feeding, Golf Course, Walking, horse riding and non-motorised vehicles, motorised vehicles, trampling/overuse, drainage, other human changes in hydraulic conditions, drying out, invasion by a species  |
|                  |           | Mediterranean salt meadows (Juncetalia maritimi)            | Unfavourable-Inadequate | Frequency of tidal submergence   | Grazing, Infilling & Reclamation, Invasive Species, Erosion   |
|                  |           | Mudflats and sandflats                                      | Unfavourable-           | Silt deposits in sheltered   | Aquaculture, Professional fishing, Bait   |

|                   |           |  |                         |   |   |
|-------------------|-----------|--|-------------------------|---|---|
|                   |           | not covered by seawater at low tide  | Inadequate              | estuaries.  | Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, Invasion by a species   |
|                   |           | Salicornia and other annuals colonizing mud and sand   | Unfavourable-Inadequate | Frequency of tidal submergence  | Invasive Species, Erosion & Accretion, Grazing  |
|                   |           | Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)  | Unfavourable-Bad        | Supply of wind-blown sand.  | Erosion, Walking/ Horse riding and non-motorised vehicles, Trampling - overuse, Motorised Vehicles  |
|                   |           | Petalwort <i>Petalophyllum ralfsii</i>   | Favourable              | Lime-rich sandy habitat. Overgrazing. Water supply for damp conditions.                           | Grazing Imbalance, Physical Disturbance, Pollution, Desiccation, trampling from stock and recreation, changes in land use.  |
|                   |           | Petrifying springs with tufa formation (Cratoneurion)  |                         | Calcium-rich, nutrient poor groundwater/surface water supply.                                     | Agriculture & Land Reclamation, Drainage, Turf Cutting, Afforestation   |
|                   |           |  |                         |   |   |
| Glen of the Downs | IE0000719 | Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles  | Unfavourable-Bad        | Lack of Habitat fragmentation, Natural regeneration, Stand structure, Dead wood, Associated Fauna | Tree felling, inappropriate grazing levels, invasive species, road schemes and housing developments   |
| Glenasmole Valley | IE0001209 | Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco Brometalia</i> )(*important orchid sites) | Unfavourable-Bad        | Dry, shallow, calcium rich nutrient poor soils. Light grazing.                                    | Encroachment by <i>Pteridium aquilinum</i> and woody shrub species, undergrazing, Fertiliser, Agricultural Improvement - cultivation, Abandonment of pastoral systems, sand and gravel extraction   |
| Howth Head        | IE0000202 | Vegetated sea cliffs of the Atlantic and Baltic coasts   | Unfavourable-Inadequate | Flat topography on coastal cliff bedrock. High pH influence of sands and seabird guano            | Fertilisation, Grazing, Overgrazing, Restructuring agricultural land holding, Burning, Disposal of household waste, Golf Course, Trampling overuse, Sea defences/ coastal protection works, Erosion |
|                   |           | European dry heaths  | Unfavourable-Inadequate | Free-draining nutrient poor acid soils. Grazing and burning.                                      | Agricultural Improvements, Removal of Scrub, Cultivation, Fertilisation, Over Grazing by sheep, Burning, Invasion by Species, Vandalism,  |

|  |           |  |                  |  |   |
|--|-----------|--|------------------|--|---|
| Carrigower Bog   | IE0000716 | Transition mires and quaking bogs                          | Unfavourable-Bad | Water quality;<br>Hydrological conditions  | General agricultural land reclamation, infilling of sites with building waste, dumping of household refuse, afforestation, water pollution and urban expansion  |
| <b>SPECIAL PROTECTION AREAS</b>                            |           |  |                  |  |   |
| Dalkey Islands   | [004172]  | Roseate Tern ( <i>Sterna dougallii</i> ) (Stage)           |                  | Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation | Human disturbance at nesting sites (e.g. from off-road vehicles, recreation, motor-boats, personal watercraft and dogs), Flooding of nest sites, habitat loss ( coastal development),erosion, vegetation overgrowth, chemical pollution, predation of nest sites ( <a href="http://www.arkive.org">http://www.arkive.org</a> ); Predation & Severe Weather (Climate Change) |
|  |           | Common Tern ( <i>Sterna hirundo</i> ) (Stage)              |                  |  |   |
|  |           | Arctic Tern ( <i>Sterna paradisaea</i> ) (Stage)           |                  |  |   |
| (South Dublin Bay) Sandymount Strand / River Tolka Estuary | [004024]  | Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) |                  | Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing.                                 | Infilling of Intertidal mudflats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore.  |
|  |           | Oystercatcher ( <i>Haematopus ostralegus</i> )             |                  | Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close  |   |
|  |           | Ringed Plover ( <i>Charadrius hiaticula</i> )              |                  |  |   |

|                   |          |  |  |  |  |
|-------------------|----------|--|--|--|--|
|                   |          | Golden Plover ( <i>Pluvialis apricaria</i> )               |  | to feeding areas.  |  |
|                   |          | Knot ( <i>Calidris canutus</i> )                           |  |  |  |
|                   |          | Sanderling ( <i>Calidris alba</i> )                        |  |  |  |
|                   |          | Bar-tailed Godwit ( <i>Limosa lapponica</i> )              |  |  |  |
|                   |          | Redshank ( <i>Tringa totanus</i> )                         |  |  |  |
|                   |          | Roseate Tern ( <i>Sterna dougallii</i> )                   |  | Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation |  |
| Wicklow Mountains | [004040] | Peregrine Falcon ( <i>Falco peregrinus</i> )               |  | extensive open terrain for hunting, availability of prey   | land use changes, vulnerable to human activities   |
|                   |          | Merlin ( <i>Falco columbarius</i> )                        |  | Undisturbed woodland, open pasture, marsh, heathland or moorland   | Loss of suitable habitat through overgrazing, insensitive management, and increased tourism disturbing nest sites, Pesticide contamination, predation of nests     |
| North Bull Island | [004006] | Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) |  | Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing.                                 | Infilling of Intertidal mudflats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore. |
|                   |          | Shelduck ( <i>Tadorna tadorna</i> )                        |  | Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites.  |  |
|                   |          | Teal ( <i>Anas crecca</i> )                                |  | Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed   |  |

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|  |  |   |  | freshwater/coastal roosting sites close to feeding sites.   |  |  |
|  |  | Pintail ( <i>Anas acuta</i> )                           |  | Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed freshwater/coastal roosting sites close to feeding sites.            |  |  |
|  |  | Shoveler ( <i>Anas clypeata</i> )                       |  |   |  |  |
|  |  | Oystercatcher ( <i>Haematopus ostralegus</i> )          |  | Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas. |  |  |
|  |  | Grey Plover ( <i>Pluvialis squatarola</i> )             |  |   |  |  |
|  |  | Knot ( <i>Calidris canutus</i> )                        |  |   |  |  |
|  |  | Sanderling ( <i>Calidris alba</i> )                     |  |   |  |  |
|  |  | Black-tailed Godwit ( <i>Limosa limosa</i> )            |  |   |  |  |
|  |  | Bar-tailed Godwit ( <i>Limosa lapponica</i> )           |  |   |  |  |
|  |  | Curlew ( <i>Numenius arquata</i> )                      |  |   |  |  |
|  |  | Redshank ( <i>Tringa totanus</i> )                      |  |   |  |  |
|  |  | Turnstone ( <i>Arenaria interpres</i> )                 |  |   |  |  |
|  |  | Golden Plover ( <i>Pluvialis apricaria</i> )            |  |   |  |  |
|  |  | Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) |  | Contamination with chemical pollutants, coastal oil spills.   |  |  |
|  |  | Dunlin ( <i>Calidris alpina</i> )                       |  | Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas. |  |  |

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|                  |          | Wetlands & Waterbirds                    |  | -  |   |
|                  |          | Common Tern ( <i>Sterna hirundo</i> )    |  | Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation |   |
|                  |          | Arctic Tern ( <i>Sterna paradisaea</i> ) |  |  |   |
| Howth Head Coast | [004113] | Kittiwake ( <i>Rissa tridactyla</i> )    |  | Food availability; Nesting opportunities; Lack of Disturbance  | Food availability (Overfishing); Marine Oil Spills; Climate Change; Overfishing in local waters |