# VARIATION NO. 2
# (SANDYFORD URBAN FRAMEWORK PLAN)

**TO THE**

# DÚN LAOGHAIRE-RATHDOWN COUNTY DEVELOPMENT PLAN 2010-2016

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## APPROPRIATE ASSESSMENT
## - SCREENING REPORT -

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

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

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**SEPTEMBER 2011**

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# Section 1 Introduction

## 1.1 Background

This is the Appropriate Assessment (AA) Screening Report for the Variation No. 2 (Sandyford Urban Framework Plan) to the Dún Laoghaire-Rathdown County Development Plan 2010-2016 in accordance with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC). This report is divided into six sections as follows:

- Section 1 Introduction
- Section 2 Description of the Proposed Variation
- Section 3 Existing Environment in the Subject Area
- Section 4 Natura 2000 Sites in and within 15 km of the Subject Area
- Section 5 Assessment Criteria
- Section 6 Conclusions

## 1.2 Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are candidate Special Areas of Conservation (cSACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

*"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public*

*If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

*Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."*

## 1.3 Stages of Appropriate Assessment

This Appropriate Assessment has been prepared in accordance with the following guidance:

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

AA comprises four stages:

**Stage One: Screening**

The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

**Stage Two: Appropriate Assessment**

The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

**Stage Three: Assessment of Alternative Solutions**

The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

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

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

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any impacts on European sites by identifying possible impacts early in the plan-making process and writing the plan in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in impacts on European sites, and no further practicable mitigation is possible, then it must be rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

# Section 2 Description of the Proposed Variation

## 2.1 Background

**The Variation consists of the addition of an Urban Framework Plan for Sandyford to the Dún Laoghaire-Rathdown County Development Plan 2010-2016. It encompasses the Stillorgan Industrial Estate, Sandyford Business Estate, Central Park, South County Business Park, Legionaries of Christ, Leopardstown Park Hospital and Lands at St. Benildus and Stillorgan Reservoir (see**

Figure 1).

Over the last ten years, the subject area has experienced unprecedented levels of change and growth. Commencing in the late 1990s and gathering momentum between 2000 and 2007, the area has witnessed the redevelopment and transformation of previously low rise, low density manufacturing sites to medium-to-high density technology units, office schemes and, more recently, residential development. The transformation of the subject area, which extends to approximately 150 hectares has taken place largely on a site-by-site basis without reference to an overarching plan to guide and coordinate development. The potential pitfalls of pursuing incremental development on a piecemeal basis in the absence of a coherent plan-led strategy became evident in 2007 when certain potential shortcomings in the capacity of local infrastructure networks became manifest. Since 2008, information has become available with respect to infrastructural constraints within the Sandyford catchment area.

## 2.2 Provisions of the Variation

The Variation consists of a written statement accompanied by a series of Maps and Drawings. The Maps will have a statutory basis within the County Development Plan. The Drawings are provided for reference and as guidance for development.

The Urban Framework Plan Variation is divided into 5 Sections as follows:

- Section 1- Introduction;
- Section 2 - Future Land Uses;
- Section 3 - Indicative Urban Form, Public Realm, Linkages and Building Height;
- Section 4 - Infrastructure; and,
- Section 5 - Phasing and Funding.

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Planning applications will be assessed against the County Development Plan as varied by the Urban Framework Plan.

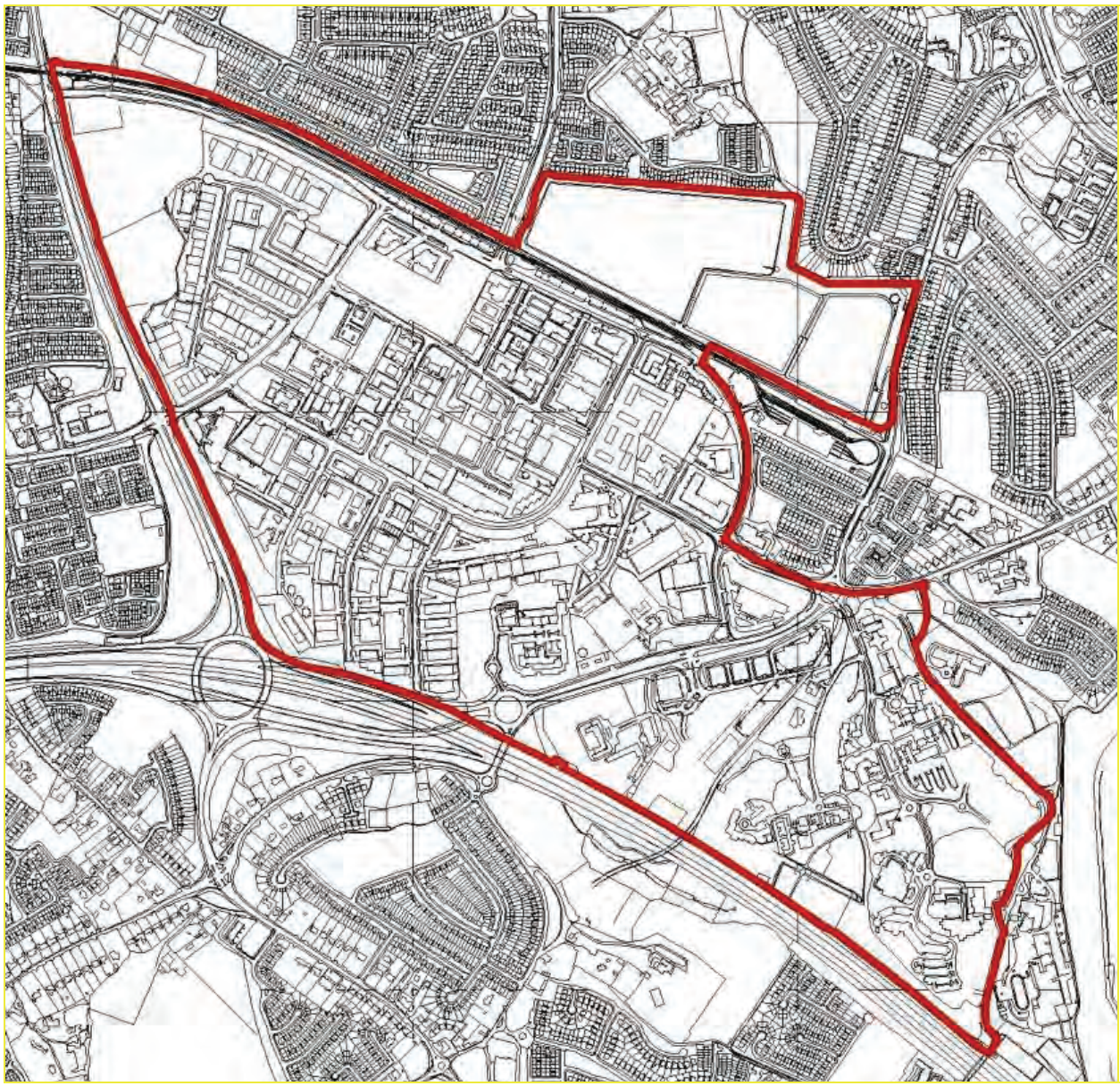

**Figure 1 Lands at Sandyford to which the Variation relates**

# Section 3 Existing Environment in the Subject Area

## 3.1 Habitats within the Subject Area

In 2007, White Young Green Environmental consultants were commissioned by Dún Laoghaire-Rathdown County Council to prepare a habitat map of the County based on existing GIS data and a ground survey.

The Habitat Mapping Survey was undertaken in accordance with the classification scheme identified in Fossitt (2000). This classification scheme covers natural, semi-natural and artificial habitats of terrestrial, freshwater and marine environments and of rural and urban areas. Habitat categories are arranged within a series of ordered groupings to produce a hierarchical framework that operates on three levels. The scheme identifies 11 broad habitat groups (Level 1), 30 habitat subgroups (Level 2), and 117 separate habitats (Level 3).

It is noted that much of the subject area has not been surveyed to Fossitt Level three. The detailed survey was focused on the southern portion of the County due to the greatest percentage of biodiverse habitats being located there. Also, the open spaces between the suburban zone north of the M50 and that the upland region along the Co. Wicklow border was deemed to be under the greatest development pressure.

At Level Two, highly modified/non-native woodland and improved grassland are the most common habitats identified in the Sandyford area. The results are mapped on Figure 2.

At Level Three, only the south east of the area has been surveyed. Habitats identified are conifer plantation, (mixed) broadleaved woodland, scrub, scattered trees and parkland and improved agricultural grassland.

## 3.2 Surface Water

The subject area falls within the catchment of the Loughlinstown River. The Sandyford/Carysfort-Maretimo Stream runs through the subject area but is now largely culverted. This can be seen on Figure 3.

## 3.3 Surface Water Drainage

The Greater Dublin Strategic Drainage Study (GDSDS) - a strategic study of foul and surface water drainage in the Greater Dublin Area - was carried out between 2001 and 2005. The study predicted flooding downstream of Sandyford of both the Sandyford/Carysfort-Maretimo Stream and the Deansgrange stream.

Surface water drainage is not a constraining factor on future development in the Sandyford Business Estates area. However, given the findings in the GDSDS, SuDS (Sustainable Drainage Measures) will be fully implemented on all development sites in the area through a range of measures including green roofs, permeable paving, etc., that limits be placed on storm water runoff rates and that the preparation of independent Storm Water audits be required in respect of all major new developments.

## 3.4 Foul Water Drainage

The foul sewage network that drains the subject area discharges to the West Pier Pumping Station by gravity or pumped drainage systems. Flows arriving at the West Pier are then pumped across Dublin Bay

for treatment at Dublin City Council's treatment plant at Ringsend. The Ringsend Wastewater Treatment plant is currently operating at capacity and DCC are examining options for its expansion.

The GDSDS identified various deficiencies in the catchment covering the Sandyford/Stillorgan environs. Given these findings Dún Laoghaire-Rathdown County Council commissioned a more detailed sub-catchment study in 2006.

The findings of the study identified significant lengths of foul sewer pipe of inadequate capacity between the Sandyford/Stillorgan catchment area and the West Pier pumping station. These pipes will need to be upgraded. The Council is proceeding to plan the necessary upgrade work.

No new waste water or surface water discharges are proposed as a result of the increased development of the Sandyford Area and a Discharge Licence Application is currently with the EPA for the Dún Laoghaire Catchment which includes the Sandyford sub catchment - the licence applicant being Dublin City Council.

## 3.5 Water Supply

Water supplied to the subject area currently comes from Dublin City Council's Ballyboden reservoir which, in turn, is supplied by Ballymore Eustace and Bohernabreena Water Treatment works. The water is pumped from Ballyboden to Woodtown reservoir; from Woodtown, water flows to Sandyford reservoir.

The water capacity throughout the Woodtown/Sandyford supply area, including the Sandyford Urban Framework Plan (SUFP) area, is currently beyond normal design parameters with a consequent reduction in security of supply. Augmentation of the Sandyford reservoir supply area from the new High Level Scheme will provide sufficient storage to supply all permitted and appealed development in the SUFP area. Provision has been made in the Sandyford High Level Scheme for reservoir capacity to secure some dense development parcels beyond assigned capacity within the Scheme's supply area.

While reservoir capacity is sufficient to permit considerable additional development in the SUFP area, other supply considerations may prove limiting including regional water availability in the medium term and the need to reserve discretionary capacity for other areas in the Sandyford High Level Scheme in the longer term.

The overall water supply situation in the Dublin region is critical and will become more so in the short term. Water shortages and a curtailment of development will be unavoidable unless a major new water source is in place for the Greater Dublin region by 2016. The Water Supply Project – Dublin Region is examining a number of water supply options, which are themselves subject to SEA and Appropriate Assessment.

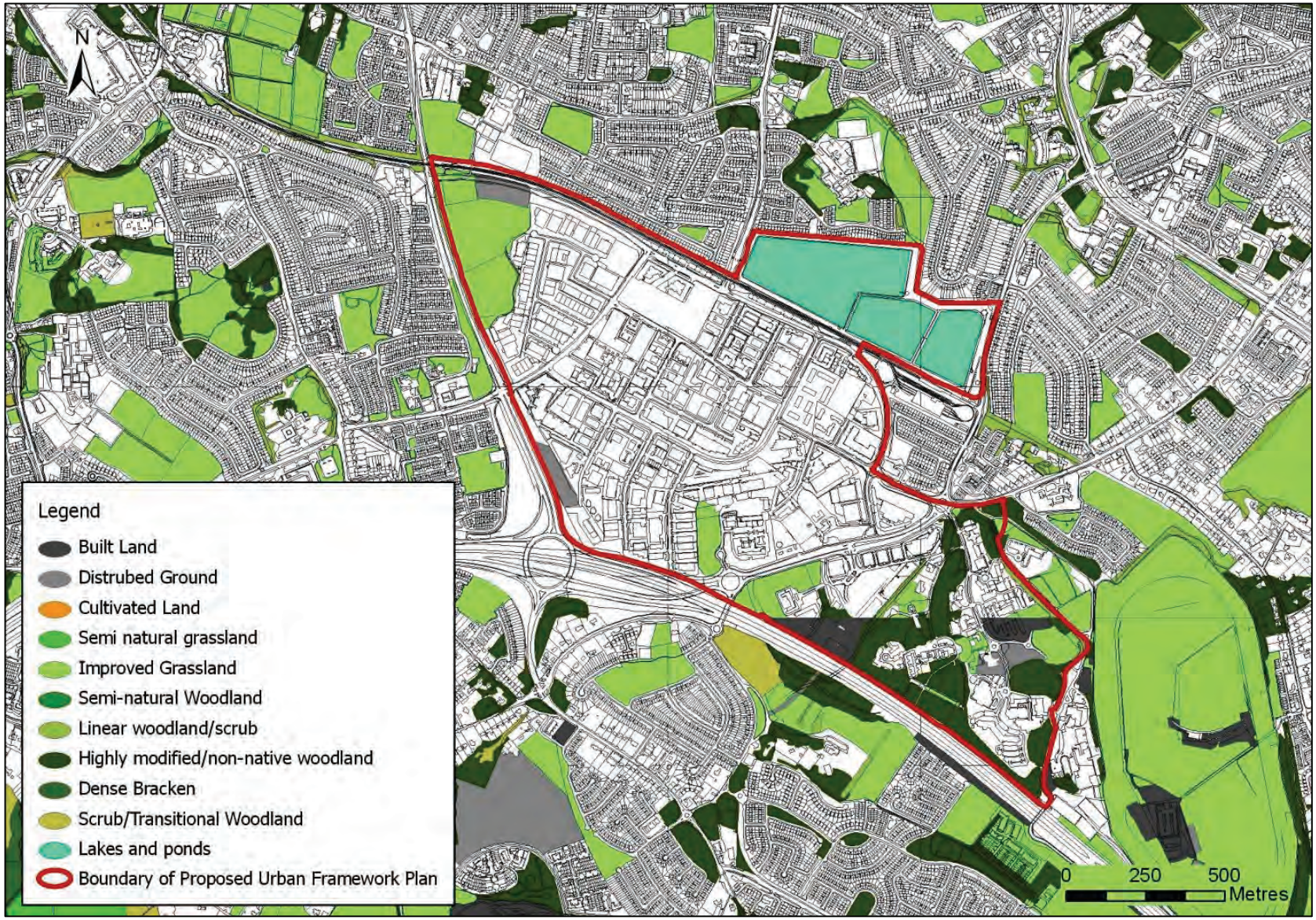


**Figure 2 Habitat Mapping to Fossitt Level 2**

Source: White Young Green (2007)

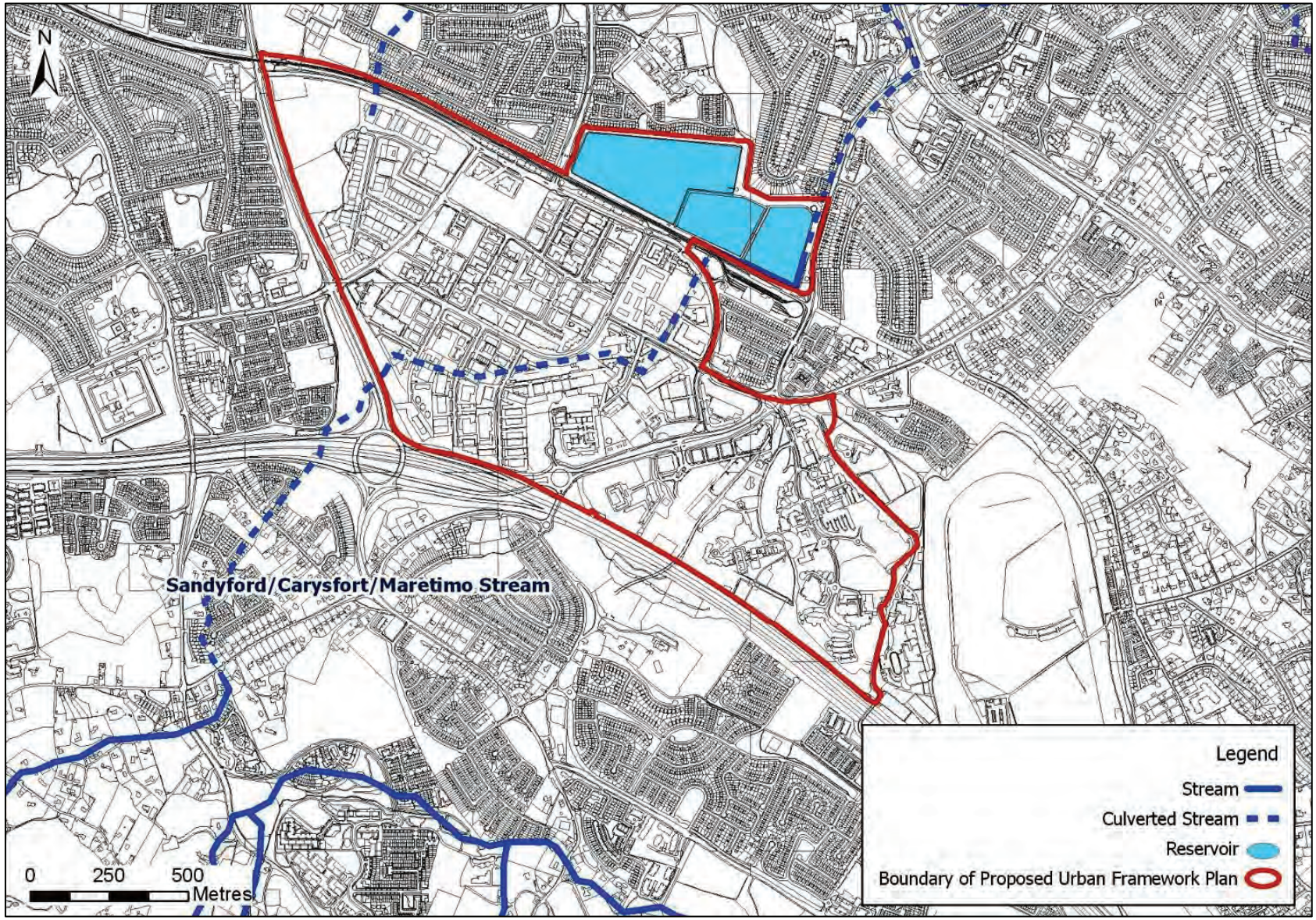


**Figure 3 Surface Waters in Sandyford**

Source: DLRCC (2010)

# Section 4 Natura 2000 Sites in and within 15 km of the Subject Area

## 4.1 SACs and SPAs

This section of the screening process describes the Natura 2000 sites within a 15km zone of impact of the subject area. A distance of 15km is currently recommended in the DoE document *DRAFT - Guidance for Planning Authorities* and as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process.

Tables 4.1 and 4.2 list the Natura 2000 sites that are within 15 km of the subject area. The qualifying features for each site have been obtained through a review of the site synopses available from the NPWS website.

## 4.2 Conservation Objectives

It is the goal of NPWS to draw up conservation plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site. Where site specific conservation objectives exist, these have been included in Tables 4.1 and 4.2. Where no Management Plan is yet available, NPWS have provided generic Conservation Objectives for Natura 2000 Sites.

One generic Conservation Objective has been provided for SPAs, as follows:

- *To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status.*

Generic Conservation Objectives for cSACs have been provided as follows:

- *To maintain Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status.*
- *To maintain the extent species richness and biodiversity of the entire site.*
- *To establish effective liaison and co-operation with landowners, legal users and relevant authorities.*

Favourable conservation status of a species can be described as being achieved when: “population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.”

Favourable conservation status of a habitat can be described as being achieved when: ‘its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable’’

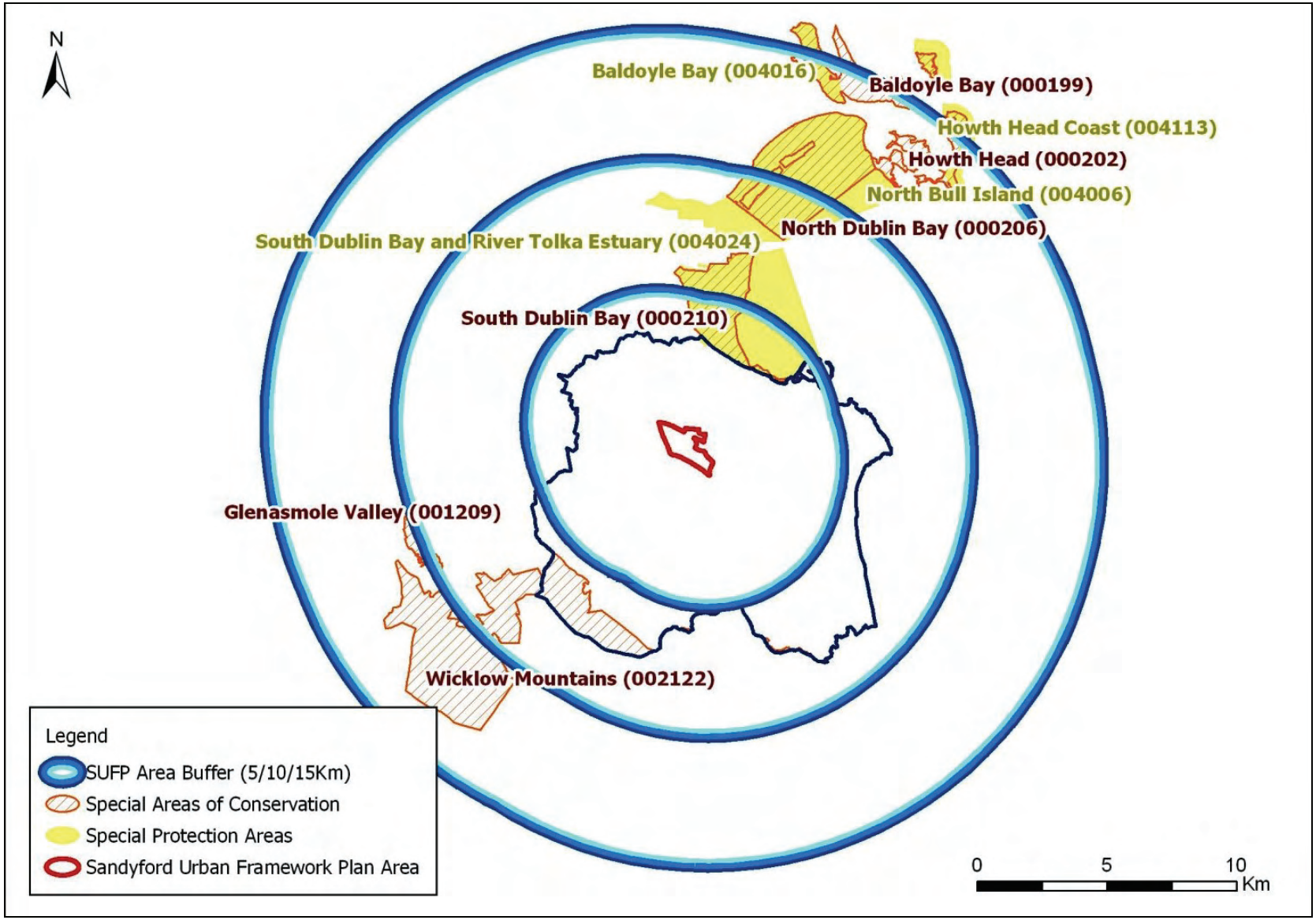


**Figure 4 Natura 2000 sites within 15km of the Subject Area**

## Table 4.1 SPAs Within 15km of the Boundary of the Subject Area

| Site Name and code | Conservation Interests | Conservation Objectives |
|---|---|---|
| 004040 Wicklow Mountains SPA | Site is selected for: Merlin and Peregrine | To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status. |
| 004006 North Bull Island SPA | Site is selected for: Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. | To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status. |
| 004024 Sandymount Strand/Tolka Estuary SPA | Site is selected for:<br>Light-bellied Brent Goose, Knot, Sanderling, Bar-tailed Godwit, Redshank, Roseate Tern, Common Tern, Arctic Tern, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Dunlin, Black-headed Gull, Wetland & Waterbirds | To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status. |
| 004172 Dalkey Islands SPA | Site is selected for:<br>Roseate Tern, Common Tern, Arctic Tern | To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status. |
| 004016 Baldoyle Bay SPA | Site is selected for:<br>Light-bellied Brent Goose, Ringed Plover, Bar-tailed Godwit, Shelduck, Golden Plover, Grey Plover. | To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status. |
| Howth Head Coast SPA | Site is selected for:<br>Kittiwake | To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status. |

## Table 4.2 SACs Within 15km of the Boundary of the Subject Area

| Site Name (Site Code) | Annex I habitat | Annex II Species | Conservation Objectives | Threats to Habitats and Species |
|---|---|---|---|---|
| 000210 South Dublin Bay | 1140 Mudflats and sandflats not covered by seawater at low tide | | Objective 1: To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status.<br>Objective 2: To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | The following activities are causes of some negative impact on **mudflats and sand flats**:<br>Aquaculture; Professional fishing; Bait digging; Removal of fauna; Aggregate extraction;(removal of beach material; Industrialisation; Port/Marina; Communications networks; Water Pollution; Reclamation of land; Coastal protection works; Invasion by a species; Of these the most serious threats are considered to be the following; Aquaculture; Professional fishing; Bait digging; Removal of fauna; Reclamation of land; Coastal protection works; Invasion by a species; |
| 000713 Ballyman Glen | 7230 Alkaline fens<br>7220 Petrifying springs with tufa formation (*Cratoneurion*) | | Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status.<br>Objective 2: To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **Alkaline fen**; Overgrazing, Restructuring agricultural land holding, Forestry Planting, Peat Extraction, Hand-cutting of peat, Mechanical removal of peat, Water pollution, Landfill, land reclamation and drying out, general, Infilling ditches, dykes, ponds, marshes and pits, Drainage.<br><br>**Petrifying springs with tufa formation** Overgrazing; Restructuring agricultural land holding; Peat Extraction; Landfill, land reclamation and drying out, general; Infilling ditches, dykes, ponds, marshes and pits; Drainage; Other human induced changes in hydraulic conditions |
| 000725 Knocksink Wood | 7220 Petrifying springs with tufa formation (*Cratoneurion*)<br>91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) | | Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status.<br>Objective 2: To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **Alluvial forests**: Grazing, General forestry management, Urbanised areas, human habitation, Communication networks, Invasion by species<br><br>See previous description of threats to Petrifying springs with tufa formation |
| 001209 Glenasmole Valley | 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) (*important orchid | | Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status.<br>Objective 2: To maintain the extent, | **Orchid rich grasslands:** Invasion by a species, Undergrazing, Fertilisation, Agricultural improvement, Abandonment of pastoral systems, Sand & gravel extraction: quarries<br><br>**Molinia meadows** Abandonment of pastoral systems, Drainage, |

| Site Name (Site Code) | Annex I habitat | Annex II Species | Conservation Objectives | Threats to Habitats and Species |
|---|---|---|---|---|
| | sites)<br>6410 Molinia meadows on calcareous, peaty or clavey-silt-laden soils (*Molinion caeruleae*)<br>7220 Petrifying springs with tufa formation (*Cratoneurion*) | | species richness and biodiversity of the entire site.<br>Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | Grazing (cessation); Agricultural improvement<br><br>See previous description of threats to Petrifying springs with tufa formation |
| 002122 Wicklow Mountains | 7130 Blanket bog (*active only)<br>4010 Northern Atlantic wet heaths with Erica tetralix<br>4030 European dry heaths<br>91A0 Old sessile oak woods with Ilex and Blechnum in British Isles<br>8220 Siliceous rocky slopes with chasmophytic vegetation<br>8210 Calcareous rocky slopes with chasmophytic vegetation<br>8110 Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)<br>4060 Alpine and Boreal heaths<br>3160 Natural dystrophic lakes and ponds<br>3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*<br>6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) | Otter- *Lutra lutra* | Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status<br>Objective 2: To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Lutra lutra.*<br>Objective 3: To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **Blanket bog**: Accidental and deliberate burning, Overgrazing by sheep, Afforestation, Peat extraction (Mechanical), Drainage / Land reclamation, Increased access to the bog by all terrain vehicles (A.T.Vs.), Tourism / Trackway erosion, Trampling, Tourism, Wind Farm Development, Peat extraction (manual), Abuse of grazing rights, Climate change, Spread of invasive species (e.g. *Rhododendron ponticum*), Air pollution, Large scale construction (industrial development)<br><br>**Wet heath** Overgrazing by sheep, Erosion, Drainage, Land Reclamation, Forestry Planting, General Forestry Management, Burning, Windfarm development, Invasion by a species, Roadway, motorways<br><br>**Dry Heath** Overgrazing, Abandonment of pastoral systems, General Forestry management, Forestry planting, Burning, Fertilisation, Agricultural improvement, Sand and gravel extraction<br><br>**Alpine and Boreal heaths:** Abandonment of Pastoral Systems – in the Burren, Overgrazing by sheep, Burning, Quarries, Communications networks, Paths, tracks or cycling paths, Energy transport, Other forms – wind generated energy, Improved access to the site, Outdoor sports and leisure activities, Walking, horse riding and non-motorised vehicles, Motorised vehicles, Mountaineering, rock climbing, speleology; Pollution; Air pollution – acidification –from acid rain; Trampling, overuse<br><br>**Oak Woods:** Grazing General forestry management Urbanised areas, human habitation, Communication networks, Invasion by species<br><br>**Rocky Slopes/Scree**: Overgrazing by sheep, Mining and extraction activities, Quarries, Paths, tracks or cycling paths, Improved access to the sites, Outdoor sports and leisure activities, Mountaineering, rock climbing, speleology; Air pollution – acidification; Trampling, |

| Site Name (Site Code) | Annex I habitat | Annex II Species | Conservation Objectives | Threats to Habitats and Species |
|---|---|---|---|---|
| | | | | overuse<br><br>**Dystrophic lakes**: Grazing, Restructuring agricultural land holding, General Forestry management, Burning, Peat Extraction, Drainage<br><br>**Oligotrophic waters** – Fertilisation, Grazing, General Forestry management, Peat Extraction, Pollution, Invasive species<br><br>**Nardus grasslands**: Invasion by a species, Undergrazing, Fertilisation, Agricultural improvement, Overgrazing by sheep, General forestry management<br><br>**Otter** - Use of pesticides, Fertilisation, Removal of hedges and copses, removal of scrub, Felling of, native or mixed woodland, Professional fishing, Hunting, Trapping, Poisoning, Poaching, Sand and gravel extraction removal of beach materials, Peat Extraction (mechanical removal of peat), Urbanised areas, human habitation, continuous urbanisation, Industrial or commercial areas, Discharges, disposal of household waste, disposal of industrial waste, disposal of inert materials, other discharges, routes, autoroutes, bridge, viaduct, Pollution, water pollution, other forms or mixed forms of pollution infilling of ditches, dykes, ponds, pools, marshes or pits; Drainage, management of aquatic and bank vegetation for drainage purposes. Removal of sediments (mud), Canalisation, modifying structures of inland watercourse |
| 000714 Bray Head | 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>4030 European dry heaths<br>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) (*important orchid sites) | | Objective 1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Vegetated sea cliffs of the Atlantic and Baltic coasts; European dry heaths<br>Objective 2. To maintain the extent, species richness and biodiversity of the entire site<br>Objective 3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **Vegetated Sea Cliffs:** Fertilisation, Grazing, Overgrazing by sheep, Overgrazing by hare, rabbits and small mammals; Restructuring agricultural land holding; Burning; Hand cutting of peat; Dispersed habitation; Disposal of household waste; Routes, autoroutes; Golf course; Camping and caravans; Trampling, overuse; Sea defence/coastal protection works; Erosion<br><br>See previous description of threats to dry heaths and important orchid sites |
| 000719 Glen of the Downs | 91A0 Old sessile oak woods with Ilex and Blechnum in British Isles | | Objective 1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation | See previous description of threats to oak woods |

| Site Name (Site Code) | Annex I habitat | Annex II Species | Conservation Objectives | Threats to Habitats and Species |
|---|---|---|---|---|
| | | | status: Old sessile oak woods with Ilex and Blechnum in British Isles.<br>Objective 2. To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | |
| 000206 North Dublin Bay | 1140 Mudflats and sandflats not covered by seawater at low tide<br>1310 Salicornia and other annuals colonizing mud and sand<br>1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)<br>1410 Mediterranean salt meadows (*Juncetalia maritimi*)<br>1210 Annual vegetation of drift lines<br>2110 Embryonic shifting dunes<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)<br>2190 Humid dune slacks<br>1320 Spartina swards (*Spartinion maritimae*) | Petalwort - *Petalophyllum ralfsii* | Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status.<br>Objective 2: To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Petalophyllum ralfsii*.<br>Objective 3: To maintain the extent, species richness and biodiversity of the entire site<br>Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **See previous description of threats to mudflats and sandflats**<br><br>**Salicornia and other annuals colonising mud and sand**; Overgrazing by sheep, Overgrazing by cattle, discontinuous urbanization (development), walking, horseriding and non-motorised vehicles (amenity); erosion; Invasion by species (*Spartina anglica*)<br><br>**Atlantic salt meadows** Overgrazing by sheep; Overgrazing by cattle; discontinuous urbanization (development); disposal of industrial waste (dumping); disposal of inert materials (dumping); Landfill, land reclamation and drying out, general; reclamation of land from the sea, estuary or marsh; sea defence or coastal protection works; erosion; Invasion by species<br><br>**Mediterranean salt meadows** Over-grazing by sheep; Over-grazing by cattle; discontinuous urbanization (development); disposal of industrial waste (dumping); disposal of inert materials (dumping); Other urbanisation, industrial and similar activities (development); paths, tracks, cycling tracks; Landfill, land reclamation and drying out, general; reclamation of land from the sea, estuary or marsh; erosion<br><br>**Vegetation of drift lines** Grazing; Sand and gravel extraction – removal of beach materials; Walking, horse riding and non-motorised vehicles; Outdoor sports and leisure activities – motorised vehicles; Other leisure and tourism impacts (beach cleaning); Trampling, overuse; Sea defence or coastal protection works<br><br>**Embryonic shifting dunes** Walking, horseriding and non-motorised vehicles, Motorised vehicles; Trampling, overuse; Sea defence or coastal protection works; Erosion; Other natural processes (depletion of sediment source) |

| Site Name (Site Code) | Annex I habitat | Annex II Species | Conservation Objectives | Threats to Habitats and Species |
|---|---|---|---|---|
| | | | | **White dunes** Grazing; Sand and gravel extraction; Removal of beach materials; Paths, tracks, cycling routes; Walking, horseriding and non-motorised vehicles; Motorised vehicles; Trampling, overuse; Sea defence or coastal protection works; Erosion; Other natural processes (depletion of sediment source)<br><br>**Grey dunes** Mowing/cutting; Agricultural improvement; Fertilisation; Grazing; Abandonment of pastoral systems; Overgrazing by sheep; Overgrazing by cattle; Overgrazing by hares, rabbits, small mammals; Undergrazing; Restructuring agricultural holding; Stock feeding; Burning; Sand and gravel extraction; Urbanised areas, human habitation; Discontinuous urbanisation; Dispersed habitation; Disposal of household waste; Other urbanisation, industrial or similar activities; Paths, tracks, cycling routes; Routes, autoroutes; Golf course; Sports pitch; Camping and caravans; Walking, horseriding and non-motorised vehicles; Motorised vehicles; Pollution; Trampling, overuse; Other pollution or human activities; Sea defence or coastal protection works; Erosion; Invasion by a species; Competition<br><br>**Humid dune slacks** Agricultural improvement; Fertilisation; Grazing; Overgrazing by sheep; Overgrazing by cattle; Overgrazing by hare, rabbits, small mammals; Undergrazing; Restructuring agricultural land holding; Forestry; Stock feeding; Golf course; Walking, horseriding and non-motorised vehicles; Motorised vehicles; Trampling, overuse; Drainage; Other human induced changes in hydraulic conditions; Drying out; Invasion by a species;<br><br>**Spartina swards** reclamation of land from the sea, estuary or marsh; sea defence or coastal protection works; other human induced changes in hydraulic conditions (dredging); erosion; Biocoenotic evolution; Other natural processes (transition of Spartina sward to other saltmarsh)<br><br>***P. ralfsii*** is potentially threatened by a large number of factors, including holiday developments, recreational activities, under-grazing, over-grazing, erosion and desiccation due to water abstraction. The main pressures and threats include Grazing imbalance Physical disturbance, Pollution and Pollution of the groundwater, Large-scale changes in land use, Pressure from proposed developments such as |

| Site Name (Site Code) | Annex I habitat | Annex II Species | Conservation Objectives | Threats to Habitats and Species |
|---|---|---|---|---|
| | | | | golf courses, caravan parks, hotel building and other leisure developments. |
| 000199 Baldoyle Bay | 1140 Mudflats and sandflats not covered by seawater at low tide<br>1310 Salicornia and other annuals colonizing mud and sand<br>1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)<br>1410 Mediterranean salt meadows (*Juncetalia maritimi*)<br>1320 Spartina swards (*Spartinion maritimae*) | | Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status:<br>Objective 2. To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **See previous description of threats to mudflats and sandflats; Salicornia and other annuals colonising mud and sand; Atlantic salt meadows; Mediterranean salt meadows and Spartina swards** |
| 000202 Howth Head | 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>4030 European dry heaths | | Objective 1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status:<br>Objective 2. To maintain the extent, species richness and biodiversity of the entire site.<br>Objective 3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities. | **See previous description of threats to vegetated sea cliffs and Dry Heaths** |

# Section 5 Assessment Criteria

## 5.1 Is the Variation Necessary to the Management of Natura 2000 Sites?

The Variation is not directly connected with or necessary to the management of any Natura 2000 site.

## 5.2 Direct, Indirect or Secondary Impacts

In general, development could lead to numerous impacts on the Natura 2000 network depending on its location and scale, as well as the types and quantities of emissions (i.e. air pollution, noise, discharge to water). In practice and as outlined in the EU document "*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*", and the national guidance document '*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*', impacts that could potentially occur through the implementation of the Plan can be categorised under a number of headings:

- Loss/Reduction of habitat area – e.g. as a result of development, transport infrastructure etc
- Disturbance to key species – e.g. as a result of increased public access to protected sites and increased recreational pressure.
- Habitat or species fragmentation – e.g. through land intensification and urbanisation
- Reduction in species density
- Changes in key indicators of conservation value such as decrease in water quality and quantity – e.g. through inadequate wastewater treatment, runoff of pollutants during construction and operational phases of development.

**The physical changes that will flow from the Variation will include development proposals with associated infrastructure, both within and outside the subject area. This will include potential impacts during the construction phase as well as day to day operational impacts. As can be seen from**

Figure 1, the subject area is not located within any area subject to designation under the Habitats Directive. Therefore implementation of the Variation will not lead to *direct* habitat loss or land take within any designated site.

Potential *indirect* impacts may derive from industrial or domestic emissions to water courses upstream of a site; industrial aerial emissions and deposition; disturbance during construction phase (timing, duration, noise); or potential for increased disturbance/ pollution associated with increased recreational activity. The risk of these impacts having a significant effect on any Natura 2000 site will arise only if there is a demonstrable link, either physical or hydrological, between the source of pollution i.e. the subject area and the receiving environment, in this case the Natura 2000 network.

The subject area is drained by the Sandyford/Carysfort-Maretimo Stream which is largely culverted within the subject area. As such, it is highly unlikely that pollution arising from accidental spillages or during the construction period would enter the stream and affect water quality in the SAC and SPA.

A number of SACs designated for groundwater dependant habitats (Knocksink Wood, Ballyman Glen and Glenasmole Valley) are located to the south and east of the subject area but again, these sites are not physically or hydrologically linked to the subject area.

Given the distance between the area of the Variation and the remaining Natura 2000 sites within 15 km of the subject area (as outlined in Table 4.1 and 4.2), and the fact that there is no physical or hydrological links between the subject area and these sites, no adverse impacts on the Natura 2000 network as a whole are anticipated.

## 5.3 Elements of the Variation Likely to Give Rise to Impacts

In addition to screening Natura 2000 sites that potentially may be impacted by the implementation of the Variation, the policies and objectives contained within the Variation have also been screened. The screening process identifies whether these policies and objectives are likely to cause any direct, indirect or secondary impacts (either alone or in combination with other plans or projects) on the Natura 2000 network sites. During this assessment a number of factors were taken into account including the sites' conservation objectives and known threats. The overall aim of the assessment is to attempt to predict the consequences that can be reasonably foreseen by implementation of a policy or objective.

Zoning within the subject area allows for the following uses:

- Mixed Use including retail and residential
- Office based employment
- Residential
- Medical
- Light Industrial/ warehousing and
- Open space

None of these land uses present a threat to the integrity of the Natura 2000 network, considering the distance and lack of physical/hydrological link between the subject area and any SAC/SPA. Industrial discharges to the foul water system licensed under Section 16 of the Water Pollution Act would ultimately be processed at the Ringsend WWTP. The Eastern River Basin District Project Characterisation Report (2005) outlines that a large range of industries make discharges to foul sewers in the Dublin area, though many of these are non-toxic waste producing industries, which ensures that foul sewage in Dublin is low in metals and other toxic contaminants.

As outlined in Section 3.1.4, foul sewage from the area is treated at the Ringsend WWTP. Any impacts that may arise through capacity or expansion issues at Ringsend would be subject to a separate consent procedure with its own Appropriate Assessment. Studies carried out by Dún Laoghaire-Rathdown County Council identified lengths of foul sewer pipe of inadequate capacity within the subject area. Misconnection of foul sewage and overflow of under capacity foul sewage pipes may lead to the discharge of untreated sewage into nearby rivers and streams. In the case of the subject area this could ultimately lead to impacts on the water quality in Dublin Bay and its associated Natura 2000 sites. However, the Variation includes a number of objectives to provide for significant foul sewer infrastructure upgrades as well as detailed misconnection surveys for all new developments at the pre-application stage followed by corrective action, as required when the development proceeds. This will ensure that problems with inadequate sewage infrastructure will be rectified and development arising through the implementation of the Variation will not impact on the Natura 2000 network.

## 5.4 In-combination Effects associated with Other Relevant Plans and Projects

The Habitats Directive Article 6(3) states that if there is a likely significant effect on a European Site "individually or in combination with other plans or projects", an Appropriate Assessment should be undertaken. The Sandyford Urban Framework Plan is a Variation of the Dún Laoghaire Rathdown County Development Plan 2010 – 2016 and as such in combination effects may be viewed in the context of the implementation of that Plan. Potential impacts would be limited to the cumulative effect of discharges of foul sewage and industrial wastes to receiving waters. As outlined in the previous section, all discharges from the subject area are treated in the Ringsend WWTP and any impacts from the discharge of treated waste water to Dublin Bay would be assessed as part of the licence compliance requirements for the plant.

## Table 5.1 Potential Direct, Indirect and Secondary Impacts – SACs

| Site Name | Approximate Distance from Subject Area | Reduction of Habitat Area | Disturbance to Key Species | Habitat or Species Fragmentation | Reduction in Species Density | Changes in Key Indicators of Conservation Value | Climate Change |
|---|---|---|---|---|---|---|---|
| South Dublin Bay | 4km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Ballyman Glen | 7km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Knocksink Wood | 6km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Glenasmole Valley | 10km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Wicklow Mountains | 10km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Bray Head | 10km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| North Dublin Bay | 10km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Baldoyle Bay | 15km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Howth Head | 13km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |

## Table 5.2 Potential Direct, Indirect and Secondary Impacts – SPAs

| Howth Head Coast SPA | 13km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
|---|---|---|---|---|---|---|---|
| **Site Name** | **Approximate Distance from Subject Area** | **Reduction of Habitat Area** | **Disturbance to Key Species** | **Habitat or Species Fragmentation** | **Reduction in Species Density** | **Changes in Key Indicators of Conservation Value** | **Climate Change** |
| Wicklow Mountains SPA | 10km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| North Bull Island SPA | 10km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Sandymount Strand/Tolka Estuary SPA | 4km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Dalkey Islands SPA | 6km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |
| Baldoyle Bay SPA | 15km | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted | No impacts predicted |

# Section 6 Conclusions

The likely impacts that will arise from the Variation have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network. None of the sites within 15km of the Variation will be adversely affected.

On the basis of the findings of this screening for Appropriate Assessment, it is concluded that the Variation will have no significant effects on the integrity of the Natura 2000 network. Therefore, a Stage 2 'Appropriate Assessment' under Article 6(3) of the Habitats Directive 92/43/EEC is not required.