Provision of information regarding Appropriate Assessment Screening

for

Draft Dublin City Development Plan 2022-2028

prepared for Dublin City Council

Scott Cawley, College House, 71 – 73 Rock Road, Blackrock, Co. Dublin, A94 F9X9, Ireland

Tel+353(1)676-9815 Fax +353(1) 676-9816

Document Control

Project Title	Dublin City Development Plan		**Project No.**	200222
Document Title	Appropriate Assessment Screening Report		**Status**	Final
Revision	**Issue Date**	**Author**	**Reviewed By**	**Approved By**
D01	30/03/2021	AGS	KMOC	ACa
I1	22/11/2021	AGS/TR	ACa	Aca

Table of Contents

1 Introduction

1 Dublin City Council has commenced a review of the Dublin City Development Plan 2016-2022 and has commenced the process of creating a new Dublin City Development Plan for the period of 2022 to 2028. The new plan will set out the framework to guide future development while protecting the environment.

2 This report, which contains information to assist the competent authority, in this case Dublin City Council to undertake a screening for Appropriate Assessment in respect of the Draft Dublin City Development Plan 2022-2028 (hereafter referred to as the "draft Plan"), has been prepared by Scott Cawley Ltd. on behalf of Dublin City Council. It provides information on, and assesses, in view of best scientific knowledge for, the potential of the Draft Plan to have significant effects, either individually or in combination with other plans or projects on the Natura 2000 network (hereafter referred to as European sites)[1].

3 As a Draft Plan was not yet available at the time of preparation, this AA Screening Report has been informed by the pre-draft Plan Public Consultation Strategic Issues Paper.

4 An AA is required if significant effects on European sites arising from a plan cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the Draft Plan has the potential to have significant effects on European sites, either individually or in combination with other plans or projects.

5 For the reasons set out in detail in this AA Screening Report, an Appropriate Assessment of the Draft Plan will be required in this instance as it cannot be concluded, on the basis of objective information, that the Draft Plan, either individually or in combination with other plans or projects, will not have a significant effect on a range of European site(s).

[1] The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as European sites - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

2 Methodology

2.1 Guidance

6 This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 revision);
- Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, 2021);
- 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 in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2021);
- Communication from the Commission on the precautionary principle (European Commission, 2000); and
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2019).

2.2 Assessment Methodology

7 The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).

8 Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and / or the QI / Special Conservation Interest (SCI) species of a European site(s).

9 Screening for Appropriate Assessment involves the following steps:

Determining whether the plan is directly connected with, or necessary to the conservation management of, any European site(s)

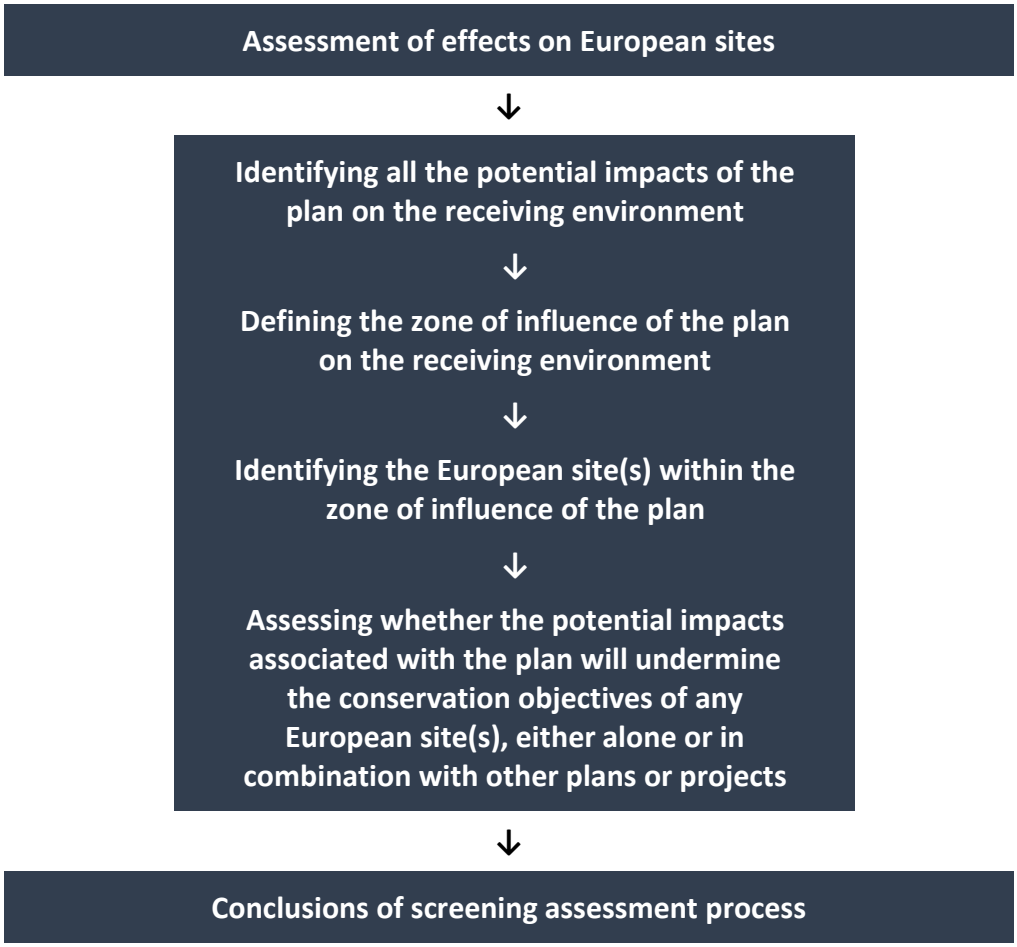
↓

Describing the details of the plan

↓

Describing the receiving environment

↓



10 Screening for Appropriate Assessment must also identify if a plan or project is directly connected with or necessary to the management of a European sites. As the Draft Plan is a statutory plan, it is required to be subject to Appropriate Assessment (as well as Strategic Environmental Assessment and Strategic Flood Risk Assessment – prepared separately and not the focus of this assessment).

11 If the conclusions at the end of the screening assessment are that there is no likelihood of significant effects occurring on any European sites as a result of the plan, either alone or in combination with other plans and projects, then there is no requirement to undertake an Appropriate Assessment.

12 In establishing which European sites are potentially at risk (in the absence of mitigation) from the Draft Plan, a source-pathway-receptor approach is applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a European site or its QI(s) or SCI(s)[2]), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a

[2] The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

13 The identification of source-pathway-receptor connection(s) between the plan and European sites essentially is the process of identifying which European sites are within the Zone of Influence (ZoI) of the plan, and therefore potentially at risk of significant effects. The ZoI is the area over which the plan could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI / SCI species of a European site, or on the achievement of their conservation objectives[3].

14 The identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. extent and duration of construction works), the characteristics of the pathway (e.g. direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g. the sensitivities of the European site and its QIs / SCIs). Where uncertainty exists, the precautionary principle[4] is applied.

2.3 Desktop Data Review

15 The desktop data sources used to inform the assessment presented in this report are as follows (accessed during March 2021):

- Online data available on European sites and protected and/or rare habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie, including conservation objectives documents;
- Online data available on European site designation status from the electronic Irish Statute Book from www.irishstatutebook.ie;

[3] As defined in the "Guidelines for Ecological Impact Assessment in the UK and Ireland "(CIEEM, 2018)

[4] The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

The guidance document "Communication from the Commission on the Precautionary Principle" (European Commission, 2000) notes that the precautionary principle

"covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection".

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are possible and AA must be carried out.

- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie;
- Information on the surface water network and surface water quality in the area available from www.epa.ie;
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie;
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie;
- Information on planning and land zoning in Dublin City provided by the Planning Department of DCC;
- Information arising out of the public consultation of the Pre-Draft Issues Paper and the subsequent preparation of the CE's report for the development of the Draft Dublin City Development Plan 2022-2028;
- Information on the use of inland feeding sites by light-bellied brent geese in Dublin contained within (Scott Cawley Ltd., 2017), informed by re-sighting data reports provided by the Irish Brent Goose Research Group (IBGRG) and an earlier study undertaken in 2008-2009 (Benson, 2009);
- Information on fisheries and water quality available from www.wfdfish.ie and www.inlandfisheriesireland.
- The following ecological datasets provided by DCC to inform this assessment:
    - Dublin City Otter Survey report (Macklin et al., 2019) ;
    - Existing allotment and community garden sites on DCC lands;
    - Habitat mapping data; and
    - Tree and hedgerow surveys.

3 Provision of Information for Screening for Appropriate Assessment

16 The following sections provide information to facilitate the Appropriate Assessment screening of the Draft Plan to be undertaken by the competent authority.

17 A description of the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the Draft Plan to affect the receiving ecological environment (e.g. geological, hydrogeological and hydrological data).

18 The potential impacts are examined in order to define the potential zone of influence of the Draft Plan on the receiving environment. This then informs the assessment of whether the Draft Plan could result in significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Summary of Pre-Draft Public Consultation Strategic Issues Paper

Dublin City Council, in preparation for the drafting of the Draft Plan, prepared a detailed pre-Draft Plan Public Consultation Strategic Issues Paper. Following on from this, 12 strategic issues papers were amalgamated into 10 themes for the Pre-Draft Consultation Issues Paper[5], and will be incorporated into the Draft Plan under the following headings:

- Shaping the City
- Climate Action
- Quality Housing and Sustainable Neighbourhoods
- The City Economy
- The City, Urban Villages and Retail
- Sustainable Movement and Transport
- Green Infrastructure, Open Space, Recreation and Natural Heritage
- Built Heritage and Archaeology
- Culture
- Sustainable Environmental Infrastructure

Table 1 provides a summary description of the main strategic issues highlighted within the pre-Draft Plan Public Consultation Strategic Issues Paper which covered the following themes.

Table 1: Pre-Draft Plan Issues

1. Shaping the City Aspects of the core strategy for this theme include: - Strategic Development and Regeneration Areas - Urban form, height and density – Compact growth – Optimal and sustainable use of land – High-quality design – Tall buildings – Character of the City and built heritage

[5] https://www.dublincity.ie/sites/default/files/2021-01/full-document-pre-draft-consultation-strategic-issues-paper.pdf

Vacant Land

- Redevelopment of vacant urban sites

  - Urban design and placemaking

2. Climate Action

Mitigation and Adaptation measures for the theme include:

- Reduction in carbon emissions
- Compact urban growth
- Sustainable transport
- Green infrastructure and biodiversity
- Nature Based Solutions
- Development of strategic brownfield lands

3. Quality Housing and Sustainable Neighbourhoods

Aspects of the core strategy for this theme include:

- The need for housing in the city
- Metropolitan Area Strategic Plan (MASP)
- Quality housing, healthy place-making and urban design
- Social inclusion
- Social infrastructure provision
- Housing tenure and mix
- Housing affordability
- Planning for a post COVID-19 environment

4. The City Economy

Aspects of the core strategy for this theme include:

- Shortage of housing in the city
- Planning for a post COVID-19 environment
- High quality jobs
- Metropolitan Area Strategic Plan (MASP)
- Economic development clusters
- Futureproofing
- Globally competitive city
- International investment
- Support for SMEs

Tourism

- Sustainable tourism

5. The City, Urban Villages and Retail

Aspects of the core strategy for this theme include:

- Revitalising the City
- Niche and specialist retail
- High quality attractions and amenities
- Planning for a post COVID-19 environment
- Online shopping

Key District and District Centres

- Revitalise older shopping centres
- Specialist shops
- Environmental improvements

6. Sustainable Movement and Transport

Aspects of the core strategy for this theme include

- Sustainable mobility
- Pedestrians and cyclists
- Micro mobility
- Strategic infrastructure
- Transport emissions
- Reducing car commuting
- Car parking

7. Green Infrastructure, Open Space, Recreation and Natural Heritage

Aspects of the core strategy for this theme include:

- City's natural heritage assets
- Urban development and fragmentation
- High quality amenity space
- Multi-functional open space
- Ecosystem services
- Biodiversity awareness

8. Built Heritage and Archaeology

Aspects of the core strategy for this theme include:

- Conservation of our built and archaeological heritage and sensitive adaption
- Climate change and flooding
- Compact growth and increased density
- Loss through excavation or dewatering
- Medieval City walls

9. Culture

Aspects of the core strategy for this theme include:

- Planning for a post COVID-19 environment
- Pressure on existing cultural space
- New cultural spaces in developing areas

10. Sustainable Environmental Infrastructure and Flood Risk

Aspects of the core strategy for this theme include:

- Flood Risk Management / Coastal Management
- Land Contamination

Infrastructure Projects

- Greater Dublin Drainage project
- Ringsend Waste Water Treatment upgrade/ expansion project
- Eastern and Midlands Region Water Supply project

Policy to Address Climate Change

- Extreme weather events
- De-carbonisation targets

Sustainable Water Resource Management

- Strategic flood risk assessment
- Surface Water Management / SuDs
- Green infrastructure
- Wastewater
- Water Supply / Water Conservation
- Water Quality / Watercourse Management

Gas and Electricity Utilities

- Transmission infrastructure projects
- Energy generation technology
- Public Lighting

Managing Waste/ Energy

- Waste-to-energy facilities
- District heating
- Focus on a circular economy in litter / waste management
- District Energy Zone(s)

Digital Connectivity

- National Broadband Plan
- ICT infrastructures / data centres
- Digital connectivity demands / ducting
- Smart City and 5G prototype

Air Quality and Noise Management

- Land-use and spatial planning
- Noise planning strategies
- Dublin Airport noise zone

3.2 Overview of the Receiving Environment

DCC's administrative area is situated on the east coast of Ireland in Co. Dublin, bordered by the administrative areas of Fingal County Council to the north, South Dublin County Council to the south-west and Dún Laoghaire-Rathdown County Council to the south-east. It is located within the Eastern River Basin District and the Liffey and Dublin Bay catchments. The administrative extent of the Draft Plan covers an area of 115km^2 and has a population of 554,554 people (Census 2016). The population of the city is projected to increase to 595,434 by 2020, a projected increase of 7.4% and the adjusted population up to 2028 is between 625,750 and 640,000 persons.

The DCC administrative area generally comprises of urban districts with industrial districts along the M50 boundary. The topography is generally uniform with an elevation gradient from sea level to a maximum of approximately 79m at Hampton Wood in Finglas. Dublin City also has approximately 70km of inland waterways (rivers and canals) and 23km of coastline. Notwithstanding the fact that despite the estimated 43% of Dublin City being characterised by built environment housing, commercial and linear infrastructure – natural and semi natural environments account for nearly 27% of the city. There is a wide range of habitats which have been mapped. These include natural and semi-natural grasslands, wetlands and watercourses, dunes, woodland and hedgerows, stone walls, street trees, scrub and cultivated ground. Other habitat elements includes private gardens and parks such as Phoenix Park, which in themselves are important biodiversity resources. Elements are of these documented habitats and protected species within the Draft Plan boundary are further described in the following sections.

The administrative boundary of Dublin City Council is shown in Figure 1.

European sites

In establishing which European sites are potentially at risk (in the absence of mitigation) of any likely significant effects from implementing the Draft Plan, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. future development), a receptor (e.g. a European site or its Qualifying Interest(s) (QIs) or Special Conservation Interest(s) (SCIs) species), and a pathway between the source and the receptor (e.g. pathway by air for air borne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

A preliminary buffer of 15km beyond the Dublin City administrative boundary was examined, having regard to national guidance (DEHLG 2010). However, the actual extent of the ZoI is defined by the existence of pathways for potential impacts, as well as the specific nature of different habitats / species for which European site are protected; and for this reason must be scientifically defined based upon available information. Based on the identified impacts, and their zone of influence, the European sites potentially at risk of any direct or indirect impacts were identified.

The identification of source-pathway-receptor connection(s) between the Draft Plan and European sites essentially is the process of identifying which European sites are within the zone of influence of the Draft Plan, and therefore potentially at risk of significant effects. The zone of influence is defined as the area within which the Draft Plan could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI / SCI species of a European site, or on the achievement of their conservation objectives (as defined in CIEEM, 2018).

There are a total of 25 European sites located within the ZoI of the Draft Plan. Four of these sites are located in the administrative boundary of DCC and in Dublin Bay, i.e.: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka SPA. These European sites are hydrologically connected to the Plan area via the following watercourses: Mayne River, Santry River, River Tolka, River Liffey, Royal Canal, Liffey Estuary Upper, Liffey Estuary Lower, Grand Canal, River Dodder, River Camac, River Poddle and the Brewery Stream. The remaining 21 sites (12 Special Areas of Conservation (SACs) and 9 Special Protection Areas (SPAs)) are outside the DCC administrative boundary, but within the potential zone of influence by virtue of:

- Hydrological pathways
- Use of ex-situ inland feeding sites by SCI wintering birds (such as Brent Geese) from European sites across the wider Dublin Area

These sites are designated for their habitats and species of Qualifying Interest (QI) in the case of the SACs and for their Species of Conservation Interest (SCIs) in the case of SPAs, as listed in Table 2. All of the European sites present in the vicinity of the Draft Plan are shown in Table 2 and Figures 2 and 3.

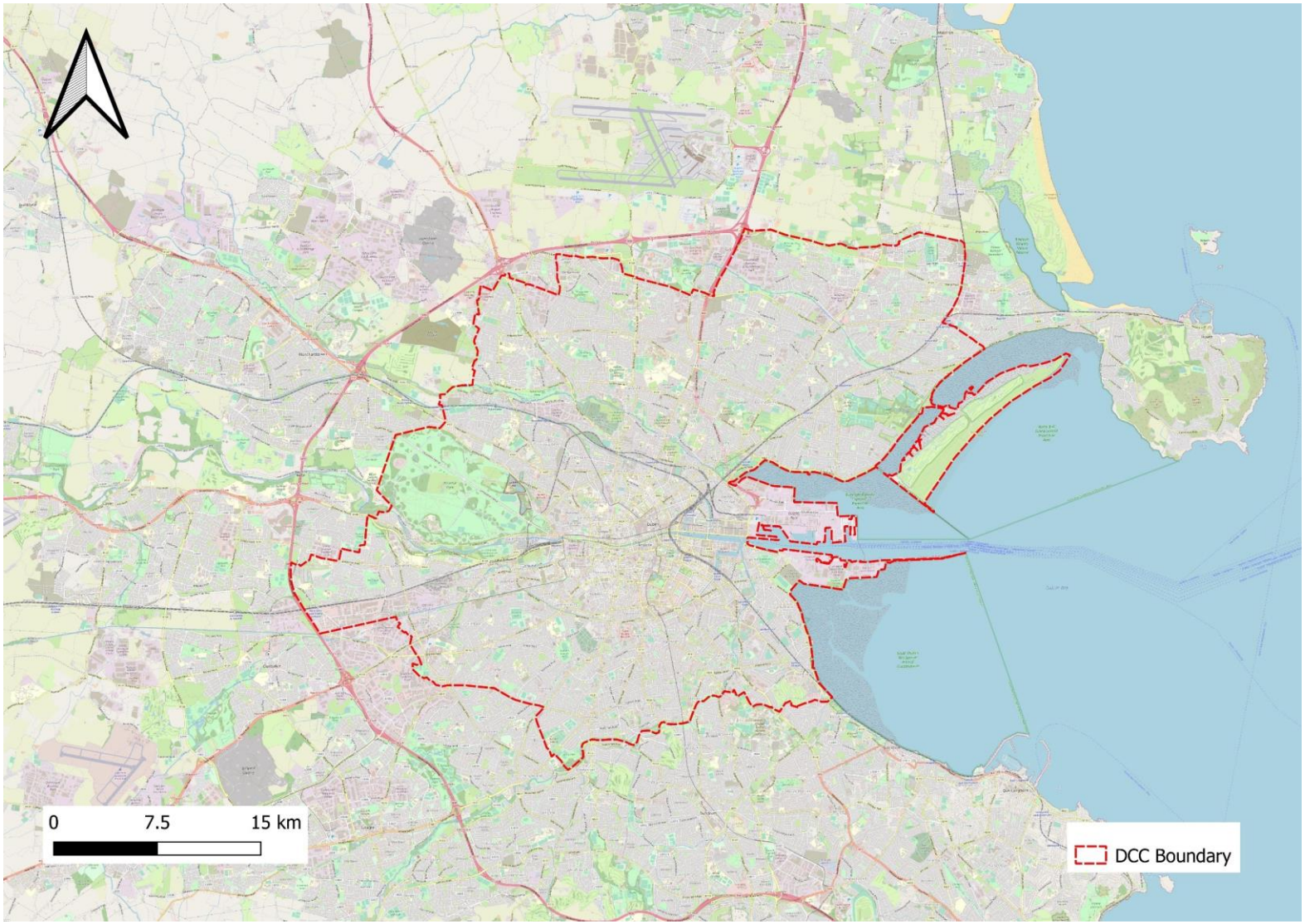


Figure 1: Dublin City Council Administrative Boundary

Table 2: European sites in Dublin City and within the Zone of Influence of the Draft Plan

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
North Dublin Bay SAC [000206] Within the Draft Plan boundary	Annex I Habitats: • Mudflats and sandflats not covered by seawater at low tide [1140]; • Annual vegetation of drift lines [1210]; • Salicornia and other annuals colonising mud and sand [1310]; • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]; • Mediterranean salt meadows (Juncetalia maritimi) [1410]; • Embryonic shifting dunes [2110]; • Shifting dunes along the shoreline with Ammophila arenaria ('white dunes') [2120]; • * Fixed coastal dunes with herbaceous vegetation ('grey dunes') [2130]; and • Humid dune slacks [2190]. Annex II Species: • Petalwort (Petalophyllum ralfsii)[1395]. NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
South Dublin Bay SAC [000210] Within the Draft Plan boundary	Annex I Habitats: • Mudflats and sandflats not covered by seawater at low tide [1140]; • Annual vegetation of drift lines [1210]; • Salicornia and other annuals colonising mud and sand [1310]; and • Embryonic shifting dunes [2110].

[6] "Qualifying Interests" for SACs and "Special Conservation Interests" for SPAs based on relevant Statutory Instruments for each SPA, and NPWS Conservation Objectives for SACs downloaded from www.npws.ie in March 2021.

[7] Sourced from NPWS online Conservation Objectives Generic Version 5.0 for SACs and 4.0 for SPAs, unless otherwise stated.

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
	NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Baldoyle Bay SAC [000199] Approximately 420m from the Draft Plan boundary	Annex I Habitats: • Mudflats and sandflats not covered by seawater at low tide [1140]; • Salicornia and other annuals colonising mud and sand [1310]; • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]; and • Mediterranean salt meadows (Juncetalia maritimi) [1410]. NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Howth Head SAC [000202] Approximately 1.5km from the Draft Plan boundary	Annex I Habitats: • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]; and • European dry heaths [4030]. NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
Ireland's Eye SAC [002193] Approximately 3.8km offshore from the Draft Plan boundary	Annex I Habitats: • Perennial vegetation of stony banks [1220]; and • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]. NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
Malahide Estuary SAC [000205] Approximately 3.4km from the Draft Plan boundary	Annex I Habitats: • Mudflats and sandflats not covered by seawater at low tide [1140]; • Salicornia and other annuals colonising mud and sand [1310];

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
	• Spartina swards (Spartinion maritimae) [1320][8]**; • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]; • Mediterranean salt meadows (Juncetalia maritimi) [1410]; • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]; and • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]*. NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Rogerstown Estuary SAC [000208] Approximately 9.7km from the Draft Plan boundary	Annex I Habitats: • Estuaries [1130]; • Mudflats and sandflats not covered by seawater at low tide [1140]; • Salicornia and other annuals colonising mud and sand [1310]; • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]; • Mediterranean salt meadows (Juncetalia maritimi) [1410]; • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]; and, • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]*. NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Lambay Island SAC [000204]	Annex I Habitats:

[8] 1320 Spartina swards (Spartinion maritimae) habitat is included within the conservation objectives document for Malahide Estuary SAC, but not within the Statutory Instruments document. This is likely because Spartina is an invasive alien species in Ireland.

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
Approximately 11.7km offshore from the Draft Plan boundary	• Reefs [1170]; and, • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Annex II Species: • Grey seal Halichoerus grypus [1364]; and, • Harbour seal Phoca vitulina [1365]. NPWS (2013) Conservation Objectives: Lambay Island SAC 000204. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Rockabill to Dalkey Island SAC [003000] Approximately 2.4km offshore from the Draft Plan boundary	Annex I Habitats: • Reefs [1170]. Annex II Species: • Harbour porpoise Phocoena phocoena [1351]. NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Rye Water Valley/Carton SAC [003198] Approximately 7.2km from the Draft Plan boundary	Annex I Habitats: • Petrifying springs with tufa formation (Cratoneurion) [7220]. Annex II Species: • Vertigo angustior (Narrow-mouthed Whorl Snail) [1014]; and • Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]. NPWS (2021) Conservation objectives for Rye Water Valley/Carton SAC [001398]. Generic Version 8.0. Department of Housing, Local Government, and Heritage.
Ballyman Glen SAC [000713] Approximately 11.8km from the Draft Plan boundary	• Petrifying springs with tufa formation (Cratoneurion) [7220]* • Alkaline fens [7230] NPWS (2019) Conservation Objectives: Ballyman Glen SAC 000713. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
Glenasmole Valley SAC [001209]	Annex I Habitats:

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
Approximately 6.7km from the Draft Plan boundary	• Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]; • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]; and • Petrifying springs with tufa formation (Cratoneurion) [7220]*. NPWS (2021) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
Knocksink Wood SAC [000725] Approximately 10.8km from the Draft Plan boundary	Annex I Habitats: • Petrifying springs with tufa formation (Cratoneurion) [7220]*; • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]; and • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*. NPWS (2021) Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
Wicklow Mountains SAC [002122] Approximately 6.7km from the Draft Plan boundary	Annex I Habitats: • Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]; • Natural dystrophic lakes and ponds [3160]; • Northern Atlantic wet heaths with Erica tetralix [4010]; • European dry heaths [4030]; • Alpine and Boreal heaths [4060]; • Calaminarian grasslands of the Violetalia calaminariae [6130]; • Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]; • Blanket bogs (* if active bog) [7130]; • Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]; • Calcareous rocky slopes with chasmophytic vegetation [8210];

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
	• Siliceous rocky slopes with chasmophytic vegetation [8220]; and • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]. Annex II Species: • Otter Lutra lutra [1355]. NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
North Bull Island SPA [004006] Within the Draft Plan boundary	• Light-bellied Brent Goose Branta bernicla hrota [A046]; • Shelduck Tadorna tadorna [A048]; • Teal Anas crecca [A052]; • Pintail Anas acuta [A054]; • Shoveler Anas clypeata [A056]; • Oystercatcher Haematopus ostralegus [A130]; • Golden Plover Pluvialis apricaria [A140]; • Grey Plover Pluvialis squatarola [A141]; • Knot Calidris canutus [A143]; • Sanderling Calidris alba [A144]; • Dunlin Calidris alpina [A149]; • Black-tailed Godwit Limosa limosa [A156]; • Bar-tailed Godwit Limosa lapponica [A157]; • Curlew Numenius arquata [A160]; • Redshank Tringa tetanus [A162]; • Turnstone Arenaria interpres [A169]; • Black-headed Gull Chroicocephalus ridibundus [A179]; and • Wetlands and Waterbirds [A199]. NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
South Dublin Bay and River Tolka Estuary SPA [004024]	• Light-bellied Brent Goose Branta bernicla hrota [A046]; • Oystercatcher Haematopus ostralegus [A130]; • Ringed Plover Charadrius hiaticula [A137];

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
Within the Draft Plan boundary	• Grey Plover Pluvialis squatarola [A140]; • Knot Calidris canutus [A143]; • Sanderling Calidris alba [A144]; • Dunlin Calidris alpina [A149]; • Bar-tailed Godwit Limosa lapponica [A157]; • Redshank Tringa totanus [A162]; • Black-headed Gull Chroicocephalus ridibundus [A179]; • Roseate Tern Sterna dougallii [A192]; • Common Tern Sterna hirundo [A193]; • Arctic Tern Sterna paradisaea [A194]; and • Wetlands and Waterbirds [A999]. NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Baldoyle Bay SPA [004016] Approximately 890m from the Draft Plan boundary	• Light-bellied Brent Goose Branta bernicla hrota [A046]; • Shelduck Tadorna tadorna [A048]; • Ringed Plover Charadrius hiaticula [A137]; • Golden Plover Pluvialis apricaria [A140]; • Grey Plover Pluvialis squatarola [A141]; • Bar-tailed Godwit Limosa lapponica [A157]; and • Wetlands and Waterbirds [A999]. NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Howth Head Coast SPA [004113] Approximately 3.8km from the Draft Plan boundary	• Kittiwake Rissa tridactyla [A188]. NPWS (2021) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
Ireland's Eye SPA [004117] Approximately 3.6km from the Draft Plan boundary	• Cormorant Phalacrocorax carbo [A017]; • Herring Gull Larus argentatus [A184]; • Kittiwake Rissa tridactyla [A188]; • Guillemot Uria aalge [A199]; and • Razorbill Alca torda [A200].

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
	NPWS (2021) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 8.0. Department of Housing, Local Government and Heritage
Malahide Estuary SPA [004025] Approximately 4.1km from the Draft Plan boundary	• Great Crested Grebe Podiceps cristatus [A005]; • Light-bellied Brent Goose Branta bernicla hrota [A046]; • Shelduck Tadorna tadorna [A048]; • Pintail Anas acuta [A054]; • Goldeneye Bucephala clangula [A067]; • Red-breasted Merganser Mergus serrator [A069]; • Oystercatcher Haematopus ostralegus [A130]; • Golden Plover Pluvialis apricaria [A140]; • Grey Plover Pluvialis squatarola [A141]; • Knot Calidris canutus [A143]; • Dunlin Calidris alpina [A149]; • Black-tailed Godwit Limosa limosa [A156]; • Bar-tailed Godwit Limosa lapponica [A157]; • Redshank Tringa totanus [A162]; and, • Wetland and Waterbirds [A999]. NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Rogerstown Estuary SPA [004015] Approximately 9.7km from the Draft Plan boundary	• Greylag Goose Anser anser [A043]; • Light-bellied Brent Goose Branta bernicla hrota [A046]; • Shelduck Tadorna tadorna [A048]; • Shoveler Anas clypeata [A056]; • Oystercatcher Haematopus ostralegus [A130]; • Ringed Plover Charadrius hiaticula [A137]; • Grey Plover Pluvialis squatarola [A141]; • Knot Calidris canutus [A143]; • Dunlin Calidris alpina [A149]; • Black-tailed Godwit Limosa limosa [A156]; • Redshank Tringa totanus [A162]; and, • Wetland and Waterbirds [A999].

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
	NPWS (2013) Conservation Objectives: Rogerstown Estuary SPA 004015. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Lambay Island SPA [004069] Approximately 11.6km offshore from the Draft Plan boundary	• Cormorant Phalacrocorax carbo [A017]; • Shag Phalacrocorax aristotelis [A018]; • Greylag Goose Anser anser [A043]; • Lesser Black-backed Gull Larus fuscus [A183] • Herring Gull Larus argentatus [A184]; • Kittiwake Rissa tridactyla [A188]; • Guillemot Uria aalge [A199]; • Razorbill Alca torda [A200]; and • Puffin Fratercula arctica [A204]. NPWS (2021) Conservation objectives for Lambay Island SPA 004069. Generic Version 8.0. Department of Housing, Local Government and Heritage
Dalkey Island SPA [004172] Approximately 7.9km offshore from the draft Plan boundary	• Roseate Tern Sterna dougallii [A192]; • Common Tern Sterna hirundo [A193]; and • Arctic Tern Sterna paradisaea [A194]. NPWS (2021) Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 8.0. Department of Culture, Heritage and the Gaeltacht.
Wicklow Mountains SPA [004040] Approximately 6.7km from the Draft Plan boundary	• Merlin Falco columbarius [A098]; and • Peregrine Falco peregrinus [A103]. NPWS (2021) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 8.0. Department of Housing, Local Government and Heritage.
Skerries Islands SPA [004122] Approximately 18.3km from the Draft Plan boundary	• Cormorant Phalacrocorax carbo [A017]; • Shag Phalacrocorax aristotelis [A018]; • Light-bellied Brent Goose Branta bernicla hrota [A046]; • Purple Sandpiper Calidris maritima [A148]; • Turnstone Arenaria interpres [A169]; and • Herring Gull Larus argentatus [A184].

European Site Name, code and location relative to the Draft Plan	Designated for – QIs or SCIs[6],[7] (*=Priority Annex I habitat)
	NPWS (2021) Conservation objectives for Skerries Islands SPA [004122]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

Figure 2: Special Areas of Conservation (SACs) in the vicinity of the Draft Plan

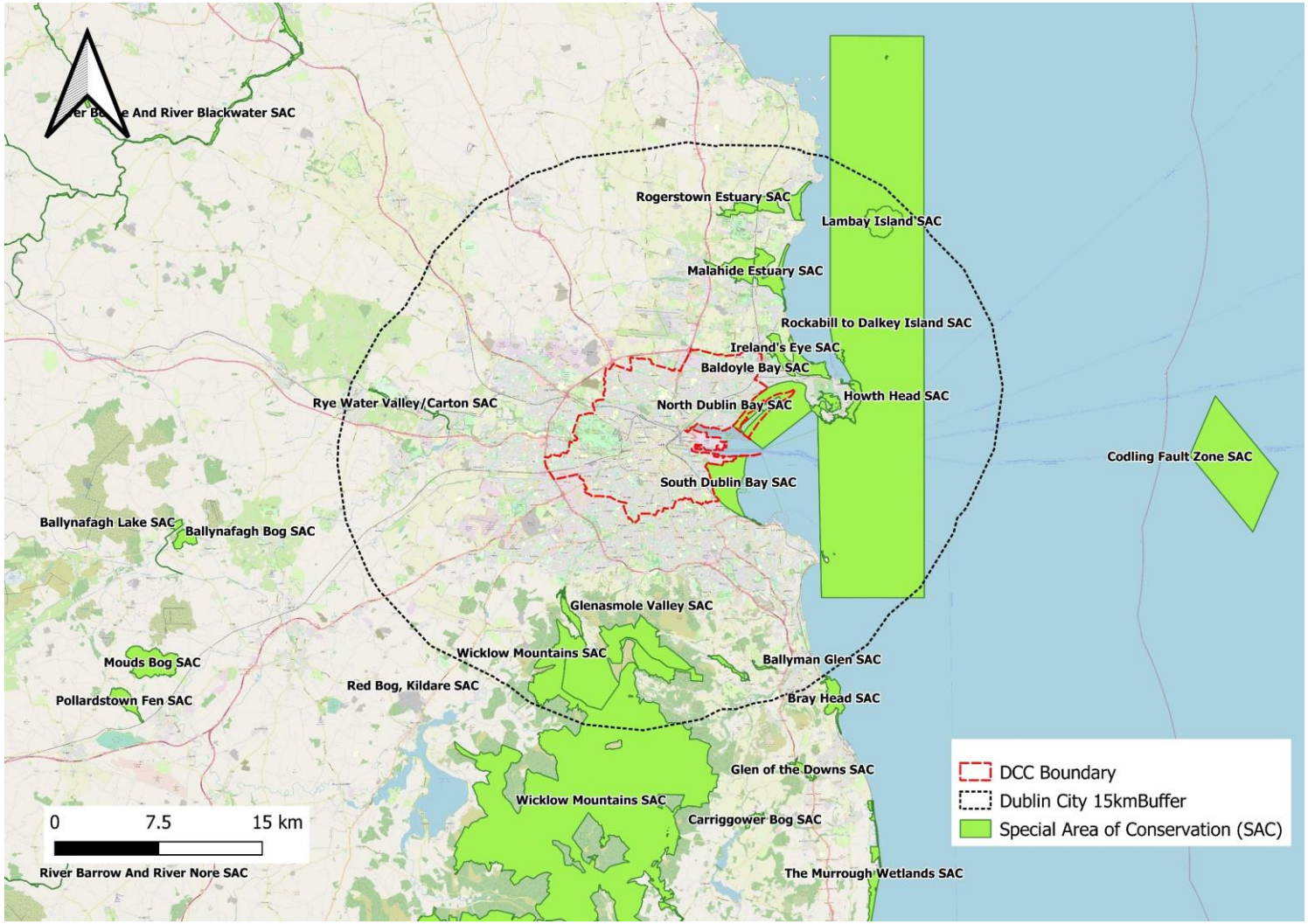
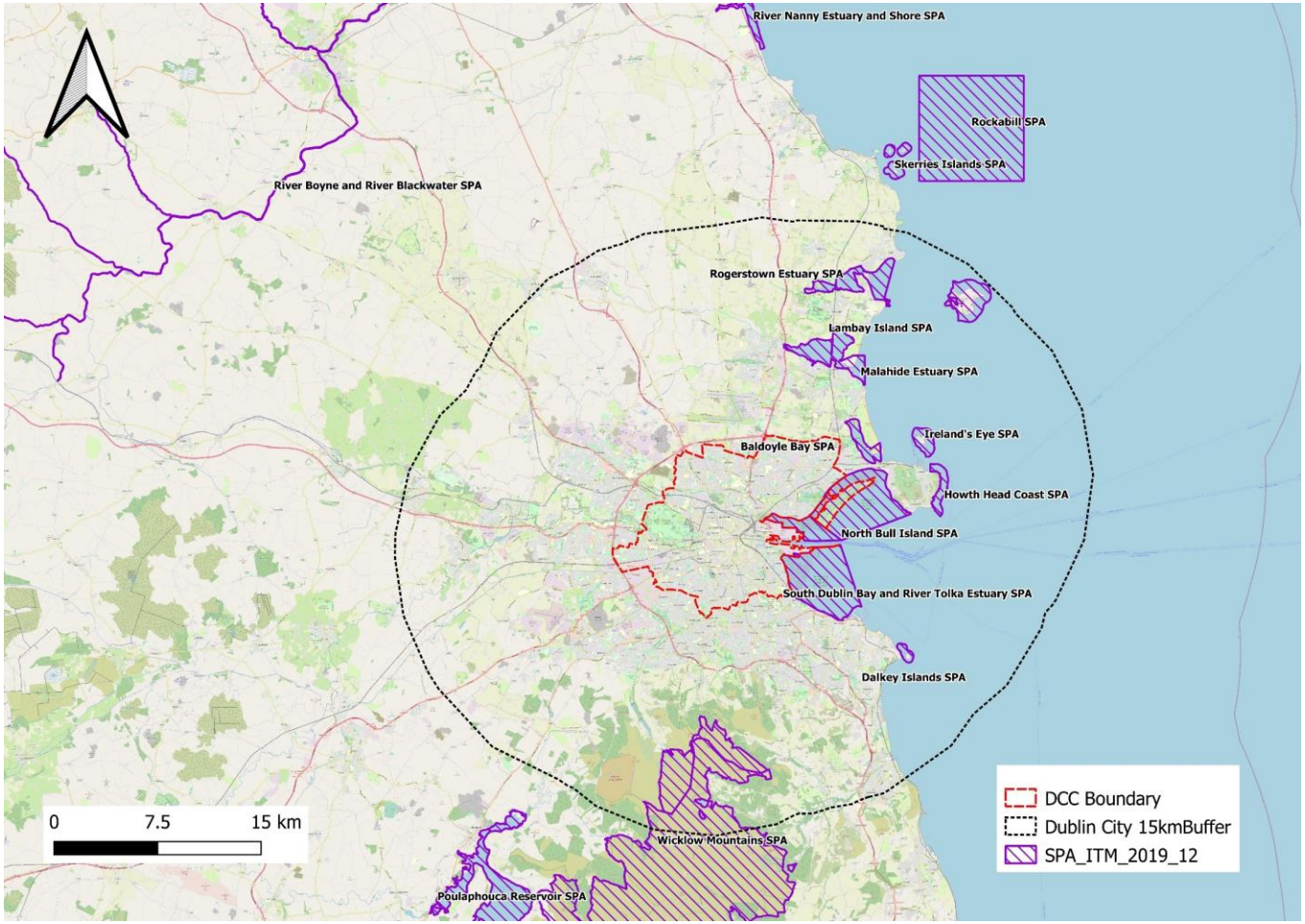


Figure 3: Special Protection Areas (SPAs) in the vicinity of the Draft Plan



3.2.1 Habitats and Species

DCC is located within the Eastern River Basin District and the Liffey and Dublin Bay catchments. The DCC administrative area generally comprises of urban districts with industrial districts along the M50 boundary. The topography is generally uniform with an elevation gradient from sea level to a maximum of approximately 79m at Hampton Wood in Finglas.

Marine habitats of note in the wider area beyond Dublin Bay include the reef systems of Lambay Island Special Area of Conservation (SAC) and Rockabill to Dalkey Islands SAC, and the vegetated cliffs of Ireland's Eye SAC. Ireland's Eye Special Protection Area (SPA) is designated for Special Conservation Interest (SCI) bird species including cormorant Phalacrocorax carbo, herring gull Larus argentatus, kittiwake Rissa tridactyla, guillemot Uria aalge and razorbill Alca torda. Dalkey Island SPA is also designated for the roseate tern Sterna dougallii, common tern S. hirundo and Arctic tern S. paradisaea.

Coastal and estuarine habitats present within North Dublin Bay SAC and South Dublin Bay SAC comprise several Annex I habitat types including:

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Annual vegetation of drift lines [1210]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (Glauco Puccinellietalia maritimae) [1330]
- Mediterranean salt meadows (Juncetalia maritimi) [1410]
- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) * [2130]
- Humid dune slacks [2190]

In addition, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA are internationally important wintering and breeding destinations for many SCI bird species, many of which range across European sites across the Greater Dublin Area. These SCI's of the various European sites including those within the DCC administrative boundary are listed in Table 2 and SCI bird species returned from the desk study are listed in Appendix I.

Semi-natural woodland habitats within DCC boundary include riparian and oak-ash-hazel woodlands within Phoenix Park. Riparian woodland within the Phoenix Park includes areas which correspond to the EU Annex I priority habitat type Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-padion, Alnion incanae, Salicion albae) (*91E0) (NPWS Dataset, 2010).

Grassland habitats are found throughout the wider Dublin area, mostly comprised of amenity grasslands and dry meadows and grassy verges. Commonly located in green spaces, parkland, schools, sports grounds, road medians and along waterways. Larger parks within DCC include Phoenix Park, St. Anne's Park, Tolka Valley Park, Liffey Valley Park (which extends to South Dublin administrative boundary), Poppintree Park, Irishtown Nature Park,

Fairview Park, Bushy Park, Herbert Park and St. Stephen's Green all of which are important for wildlife.

Grassland sites within DCC, which correspond with Annex I Orchid Rich Calcareous Grassland sites (*6210), are located along the northern boundary of Military Road in the Phoenix Park. Additional grassland types within the Phoenix Park include Dry Calcareous and Neutral Grassland (GS1), Dry Meadows and Grassy Verges (GS2), Improved Agricultural Grassland (GA1) and Improved Amenity Grassland (GA2) (NPWS Dataset, 2013).

The network of amenity grasslands and parklands across Dublin City are regularly used by SCI wintering bird species from a range of SPAs for feeding and roosting. A study examining the usage of ex-situ inland feeding sites by light-bellied brent goose within the Dublin area, undertaken by Scott Cawley in 2017 (Scott Cawley, 2017), identified 91 known inland feeding sites located within the boundaries of DCC and a further 79 potential inland feeding sites. This study was informed by a previous study of inland feeding sites of brent geese in Dublin undertaken between 2008 and 2009 (Benson, 2009), and re-sighting data reports obtained from the Irish Brent Goose Research Group and Irish Wetland Bird Survey (i.e. I-WeBS[9]) summary population data for light-bellied brent goose. These sites comprised:

- 46 sites of major importance
- 27 of high importance
- 2 of moderate importance.
- 20 sites of unknown significance

The importance of these sites is based on the largest peak count of geese recorded (i.e. major importance site 401+ geese; high importance site 51-400 geese; and, moderate importance site1-50 geese (Benson, 2009).

There are 26 Qualifying Interest and Special Conservation Interest species of relevance for Appropriate Assessment found within Dublin City, these are listed on Appendix I. According to the NBDC database, there are records of a total of 63 Special Conservation Interest (SCI) bird species within the DCC area, and these are listed in Appendix I.

The desk study also returned records for the following Annex II species within the DCC boundary:

- Desmoulin's Whorl Snail (Vertigo (Vertigo) moulinsiana)
- Marsh Fritillary (Euphydryas aurinia)
- European Otter (Lutra lutra)
- White-clawed crayfish (Austropotamobius pallipes)
- Common Porpoise (Phocoena phocoena)

[9] I-WeBS is a joint scheme of Birdwatch Ireland and the National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage that is co-ordinated by Birdwatch Ireland.

- Harbour Seal (Phoca vitulina)
- Grey Seal (Halichoerus grypus)
- Bottle-nosed Dolphin (Tursiops truncatus)

Lambay Island SAC is designated for Annex II species grey seal Halichoerus grypus and harbour seal Phoca vitulina. The foraging range for these species is approximately 50km and approximately 30km respectively (Cronin et al.). The NBDC desk study returned 8 records for harbour seal and 19 records for grey seal within the DCC boundary. Lambay Island is hydrologically connected to DCC, as such the seals in Dublin Bay cannot be excluded from the SAC population and are susceptible to any potential hydrological impacts.

The desk study returned records of Annex II species white-clawed crayfish in the River Camac, approximately1km upstream from the DCC boundary at Clondalkin, the nearest designated site for white-clawed crayfish is the River Barrow and River Nore SAC which is not hydrologically connected to DCC, as such the population in the River Camac are not deemed to be part of the SAC population.

Otter Lutra lutra, are known to be present in Dublin Bay with several holts recorded during the Dublin City Otter Survey 2019, including two active holts identified on the north side of Dublin Port. Rivers within DCC known to support otters include the Mayne River, River Liffey, Santry River, River Camac, River Poddle, River Tolka, River Dodder and Owenadoher River (Macklin, et al., 2019).

There is only one European site located within the same groundwater body as DCC, which is designated for a groundwater dependent QI Annex I habitat, i.e. Rye Water Valley/Carton SAC. Although not within the Dublin City DCC boundary, the Rye Water Valley/Carton SAC is approximately 12km upstream of Dublin City boundary via the River Liffey. This European site contains other groundwater dependent habitats, i.e. the fen and marsh habitat, which support the two QI Annex II species for which it is also designated, i.e. narrow-mouthed whorl snail Vertigo angustior and Desmoulin's whorl V. moulinsiana snail populations.

Notwithstanding the highly developed nature of Dublin City with many of its watercourses having been adopted to define their flow path, or having been historically culverted (either wholly or in sections to accommodate development) as well as providing flood defence, aquatic life has been recorded in many watercourses. Of these, key Annex II species include:

- Atlantic salmon (Salmo salar);
- European eel (Angullus anguillus);
- Brook lamprey (Lampretea planeri);
- River lamprey (Lampetra fluvialtilis); and
- Sea Lamprey (Petromyzon marinus);

With the exception of Sea Lamprey which is known from the lower reaches of the River Liffey, the remainder of these Annex II species have been found in suitable habitats and or associated with other species in the River Liffey (Salmon, Eel, Brook and River Lamprey), River Tolka (Eel, Brook and River Lamprey), River Dodder (Eel, Brook and River Lamprey) and River Mayne (Eel) (DCC 2021).

3.2.2 Rare and Protected Flora

The NBDC desk study returned records of a total of eleven species listed on the Flora Protection Order (FPO) across Dublin City including;

- Meadow barley (Hordeum secalinum);
- Opposite-leaved pondweed (Groenlandia densa);
- Bog orchid (Hammarbya paludosa);
- Wood bitter-vetch (Vicia orobus);
- Betony (Betonica officinalis);
- Great burnet (Sanguisorba officinalis);
- Hairy violet (Viola hirta);
- Many-seasoned thread-moss (Bryum intermedium);
- Cernuous thread-moss (Bryum uliginosum);
- Glass-wort feather-moss (Scleropodium tourettii); and,
- Warne's thread-moss (Bryum warneum).

In respect of consideration within the Appropriate Assessment, the only Annex II plant species documented from within the Dublin City Council area is the Petalwort (Petalophyllum ralfsii). This diminutive liverwort[10] is known from suitable habitat in North Dublin Bay SAC.

3.2.3 Non-native Invasive Species

With regards to records for non-native invasive plant species on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended) found within the administrative borders of DCC, the NBDC desk study returned a total of 92 records for the following 21 species:

- Curly Waterweed (Lagarosiphon major);
- Canadian Waterweed (Elodea canadensis);
- Nuttall's Waterweed (Elodea nuttallii);
- Water Fern (Azolla filiculoides);
- Parrot's-feather (Myriophyllum aquaticum);
- Chilean rhubarb (Gunnera tinctoria);
- Brazilian Giant-rhubarb (Gunnera manicata);
- Sea-buckthorn (Hippophae rhamnoides);

[10] Non vascular spore producing plant

- Giant Hogweed (Heracleum mantegazzianum);
- Giant Knotweed (Fallopia sachalinensis);
- Indian Balsam (Impatiens glandulifera);
- Japanese Knotweed (Reynoutria japonica[11]);
- Himalayan Knotweed (Persicaria wallichii);
- Common Cord-grass (Spartina anglica);
- Hottentot-fig (Carpobrotus edulis);
- Salmonberry (Rubus spectabilis);
- New Zealand Pigmyweed (Crassula helmsii);
- Rhododendron (Rhododendron ponticum);
- American Skunk-cabbage (Lysichiton americanus);
- Three-cornered Garlic (Allium triquetrum);
- Spanish Bluebell (Hyacinthoides hispanica) (and its hybrid);

Non-native mammal and fish species noted from across Dublin City Council Territory include:

- American Mink (Neovison vison)
- Roach (Rutilus rutilus)
- Grey Squirrel (Sciurus carolinensis)

There are many other non-native species of fauna and flora residing within the city boundary of Dublin City Council, however the majority of these species are not of relevance to the AA Screening of the Draft Plan.

3.2.4 Hydrology

The DCC functional area is located within the Eastern River Basin District. Its administrative lands fall within the Liffey and Dublin Bay Water Framework Directive (WFD) Catchment. Waterbodies that flow through DCC include: Santry River, Naniken River, River Tolka, River Liffey, River Dodder, River Camac, River Poddle, Brewery Stream, Royal Canal and Grand Canal. The Mayne River flows along the northern boundary of DCC at Clongriffin.

The River Liffey Estuary Upper and River Liffey Estuary Lower both have 'Good' WFD status and are not deemed at risk of failing to meet requirements under the EU Water Framework Directive (2000/60/EC) (hereafter referred to as the Water Framework Directive or WFD).

[11] Previously known as Fallopia japonica.

The River Liffey, River Dodder and Tolka Estuary all have a 'Moderate' WFD status and are deemed at risk of failing to meet requirements under the WFD.

The River Tolka, River Camac, and the Mayne River all have a 'Poor' WFD status and are deemed at risk of failing to meet requirements under the WFD. The Santry River at the DCC boundary is classified as being of 'Poor' WFD status and deemed to be at risk of failing to meet its WFD objectives. Downstream from Northside Shopping Centre towards North Bull Island where it discharges into Dublin Bay it is of 'Unassigned' status. The River Poddle and Brewery Stream also have an 'Unassigned' WFD Status and are deemed to be at risk of failing to meet WFD objectives. The Naniken River is a tributary of the Santry River [SANTRY_020] and is 'Unassigned' by the EPA.

The Grand Canal and Royal Canal are classed as artificial water bodies under the Water Framework Directive. Both Grand Canal and Royal Canal are classified as 'good' WFD status for the period 2013-2018. The Grand Canal is deemed not at risk of failing to meet its WFD objectives. The Royal Canal is under review. Dublin Bay is considered to be 'Unpolluted' with a 'Good' WFD status and belongs to the 'Not at risk' category.

3.2.5 Hydrogeology

The DCC administrative lands lie within the Groundwater Body (GWB) "Dublin" (Code IE_EA_G_008) which is currently classified by the EPA as having a "Good" groundwater status and "Not at risk" under the Water Framework Directive.

3.2.6 Soils and Geology

Most of the area within DCC falls under the 'Urban' classification. There are however, pockets of soil types which give rise to different habitats and species, adding to the biodiversity potential of the city. For example, 'Elton' fine loamy drift with limestone can be found around the outskirts of the city and also in a mosaic with 'Ballincurra' fine loam over limestone and 'Crosstown' fine loamy drift with siliceous stones within the Phoenix Park. 'Crosstown' is also found within St. Anne's Park. Light, sandy and limey soils provide perfect conditions for grasslands and meadows that are very rich in flowering plants, grasses, butterflies, bumblebees and other insects. Along the North Bull Island the soil type is 'Blown sand dune' and 'Tidal marsh' which is known to support many wintering and resident bird species, marsh fritillary, petalwort (Petalophyllum ralfsii) and is a haul-out site for seals.

Twelve geological heritage sites are recognised from within the DCC administrative boundary. These sites[12] and their relevance are displayed in Table 3. Two of these sites; Guinness Wells and the Phoenix Park are currently under consideration for NHA designation.

[12] Audited sites and their geological importance as described on GSI County Geological Sites (CGS)

Table 3: Dublin City Geological Heritage Sites

Site Name	Geological significance
Guinness Wells	For historical, technical and cultural importance, the wells within Dublin City are unusual
Phoenix Park	The complexity of the site in terms of its' glacial form and the manipulation of this is unusual
Museum Building, Trinity College	The building is a very fine demonstration of rocks in building construction and ornamentation
General Post Office	The sole use of three classic Irish marble types is a good example of building stone use
Oscar Wilde Statue	The statue is a remarkable example of different rock types used to extraordinary artistic effect
Glasnevin Cemetery	The variety of rock types here, and the variety of ways in which they have been worked, are unique
Temple Bar Street Well	The site presents an interesting aspect of hydrogeology in a very accessible location
River Poddle	The site is important owing to the channelisation and in the folklore lore associated with the Poddle
North Bull Island	The island itself is a very recent result of human intervention in Dublin Bay in the last 200 years
Dublin City Walls	The walls are composed of local Calp limestone, built between 1100 and 1125
51 St. Stephens Green	This is an excellent, accessible educational resource on Irish building stones
River Dodder	Within the constraints of Dublin City's sparsely visible geology this outcrop is a valuable resource

3.2.7 Air Quality

There are six regions in Ireland divided within the Air Quality Index for Health (AQIH), 'Dublin City' region is assigned an overall Air Quality Index of "3 – Good"[13]. Within the Dublin City boundary there are 21 monitoring stations, 19 of these reported "1- Good" air quality and two reported "2 – Good" air quality.

[13] EPA (2020) Air Quality Index for Health - Dublin Region. Accessed 25/03/2021 [https://airquality.ie/]

3.3 Reasons for Designation, Threats and Potential Impacts

In order to identify whether European sites could be potentially affected, it was necessary to describe the European sites in the context of:

- Qualifying Interests (QIs) for SACs and Special Conservation Interests (SCIs) for SPAs;
- Generic threats and pressures to QIs and SCIs; and
- The potential impacts arising from the draft Plan on European sites.

The QIs and SCIs were downloaded from the NPWS website on the 8th March 2021, and were verified by crosschecking with the Irish Statute Book[14].

Site-specific Conservation Objectives have been produced for a number of the European sites listed in Table 2 which aim to define favourable conservation conditions for a particular habitat or species at that European site. Overall favourable conservation status of a habitat is achieved when its natural range, and area it covers within that range, are stable or increasing; and the specific structure and functions which 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. The favourable conservation status of a species is achieved when population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and the natural range of the species is neither being reduced nor is 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.

Table 2 lists each QI or SCI for European sites within the zone of influence of the Draft Plan, while Table 4 lists the generic threats to these QIs / SCIs

3.4 Assessment of Effects on European Sites

This section documents the final stage of the screening process. It used the information collected on the sensitivity of the QIs and SCIs of the European sites within the zone of influence of the Draft Plan boundary and describes the potential for likely significant effects of implementation of the Draft Plan (as far as it could be predicted at the initial pre-Draft plan stage). This assumes the absence of any controls, conditions or assumption of mitigation measures that may later be embedded within the individual objectives or policies in the Draft Plan as they are drafted and reviewed, as part of the iterative process that continues into the next stage of the Appropriate Assessment, namely the production of the Natura Impact Report (NIR).

It is recognised that the Draft Plan is not directly connected with, nor necessary to the management of any European site.

[14] European site designation status and QI/SCI information available online. Accessed 08/03/2021 [www.irishstatutebook.ie]

In assessing the potential for the Draft Plan to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account at this stage of the assessment process.

The key output of this stage of the assessment process is the identification of the types of threats to the integrity of the European sites. These will then be applied to assessing the consequences of implementing the Draft Dublin City Development Plan 2022-2028 to ascertain the risk of any likely significant effects.

Elements of the Draft Plan that have been identified, at this early stage that could result in a number of potential impacts to European site(s) include the following strategic elements:

- Settlement and housing;
- Economic development;
- Provisions of infrastructure and transport;
- Cultural, built heritage and landscape;
- Provision for energy;
- Green infrastructure;
- Climate action; and
- Land Use zonings

Based on the baseline ecological environment and the extent and characteristics of the Draft Plan, the potential impacts have been summarised thus:

- Habitat loss, where there could potentially be either complete removal or partial loss / fragmentation of a qualifying interest (QI) habitat type or of a habitat type supporting QI species or Special Conservation Interest (SCI) bird species. Habitat loss could negatively affect QI or SCI species through a loss of resource and /or displacement of a species or population outside of their local, natural range.
- Habitat degradation, where pressures associated with increased development and population increases could negatively affect a QI habitat type or habitat type supporting QI / SCI species. Habitat degradation can arise as result of negative effects on water quality and hydrological processes, from effects on groundwater quality and flows or by accidentally introducing non-native invasive species.
- Disturbance and displacement of species, where pressures associated with increased development and population increases negatively affect the use of important supporting habitat by QI / SCI species resulting in population level abundance and distribution effects. Disturbance can arise as a result of such sources as increased noise, artificial light or recreational pressures and can result in displacement of a species or population outside of their local, natural range.

Table *4* sets out the relationship between the Draft Plan and the threats to the key environmental and ecological conditions that achieve and / or maintain the condition of the QIs and SCIs of European sites (listed in Table 2). At this stage, the detail of the Draft Plan is not known; therefore the sources of impacts listed in the first column have been collated from the existing CDP as well as the Pre-Draft Plan Public Consultation Strategic Issues Paper.

In drawing up this table it is appreciated that there are many aspects of the previous Dublin City Development Plan that provide positive impacts on European sites which will likely be brought forward and continued in the forthcoming Draft Plan. The stage of the AA process is only intended to identify the likely significant effects potentially e.g. on a precautionary basis likely arising by Draft Plan.

Table 4: Relationship between the Pre-Draft Plan and Potential Threats to the Key Environmental and Ecological Conditions required for QIs / SCIs

Draft CDP Strategies	Potential Threats to Key Conditions
Shaping the City Quality Housing and Sustainable Neighbourhoods The City, Urban Villages and Retail The City Economy, Settlements and Housing Economic Development City Economy and Urban Centres	Promotion of many types of development at an inappropriate location or scale can lead to impacts, direct and indirect on European sites. Direct impacts are in the form of loss of habitat and loss of sites used by QIs / SCIs for feeding, resting and/or breeding (both within and outside European sites) and such impacts can easily threaten the integrity of the designation. Habitat fragmentation and change in hydrology leading to habitat degradation. Any activity causing run-off of silt and nutrients or toxic spillages. Indirect impacts, especially from developments including brownfield sites / soil remediation outside of or in the vicinity the European site boundary take the form of impacts on surface water quality (especially during construction), resource use (e.g. water abstraction), waste disposal (e.g. wastewater treatment works if overcapacity), introduction of invasive species, as well as disturbance from increased recreation, lighting, noise and visual disturbances associated with increased human activity in sensitive locations.
Economic Development	Direct and indirect impacts caused by a multitude of potential developments requirements arising by virtue of the Dublin's international importance, and its contribution to the country's economy. Expansion of and repurposing buildings and installation of infrastructure in the need to service/facilitate expected growth and higher level plan targets could impact on impacts on surface water quality (especially during construction), resource use (e.g. water abstraction), waste disposal (e.g. wastewater treatment works if overcapacity), introduction of invasive species, as well as disturbance from increased recreation, lighting, noise and visual disturbances associated with increased human activity in sensitive locations.

Draft CDP Strategies	Potential Threats to Key Conditions
Sustainable Movement and Transport Infrastructure and Transportation	Impacts can be caused by both linear projects forming barriers to species moving between European sites, direct habitat loss from underground cables or piping and collision risk to birds from over ground powerlines. Direct and indirect impacts on European sites may occur depending on the precise development and routing options. Upgrading of routes and infrastructure services can lead to impacts on European sites; including water quality impacts and disturbance to habitats and species. Water and wastewater services may have both positive and negative impacts on European sites. However, as for all other development, if proposed at an inappropriate location or scale can lead to impacts; both direct and indirect, on European sites. Indirect impacts include pollution from waste disposal (in the case of overcapacity) or inappropriate treatment of waste at a facility. Any activity causing run-off of silt and nutrients or toxic spillages.
Culture, Built Heritage and Archaeology	Potential for direct impacts on nesting/roosting birds. Potential for negative impacts by overuse and unlimited access to sensitive sites. Direct and indirect impacts caused by disturbance of sensitive habitats and species (e.g. angling facilities along sensitive riverbanks, maintenance of pathways, water sports) due to increased human activity.
Energy	Direct and indirect impacts caused by energy projects if located in inappropriate sites or insensitively designed. Offshore wind energy projects can have potential direct and indirect impacts including habitat loss, effects on birds and on surface water quality. Water-based energy projects can have potential direct and indirect impacts including direct mortality of species (e.g. fish species killed by turbines), barriers to species movements, changes in flow regime, erosion and deposition rates, and disturbance to habitats.
Green Infrastructure, Open Space,	Potential for direct and indirect impacts caused by disturbance of sensitive habitats and species (e.g. inappropriate siting of pathways or corridors) due to increased human and recreational activities, as well as introduction of non-native invasive species.

Draft CDP Strategies	Potential Threats to Key Conditions
Recreation and Natural Heritage	Direct and indirect impacts caused by disturbance of sensitive habitats and species (e.g. outdoor recreation in sensitive coastal regions, angling facilities along sensitive riverbanks, maintenance of pathways, water sports and motorised water activities) due to increased human activity. Potential spread of non-native invasive species.
Climate Action Sustainable Environmental Infrastructure and Flood Risk	Direct and indirect impacts caused by rising sea levels, coastal erosion and flooding events. Potential threat to flooding via increased pressure on surface water capacity and drainage capability and the provision of sustainable environmental infrastructure in the form of flood defences, with construction both coastal and inland.
Land Use Zonings	Direct and indirect impacts caused by changes to existing zonings, or potential for new zonings to be proposed. Potential threats largely relate to loss of ex-situ inland feeding sites for wintering birds, but could also result in changes to environmental conditions - increased pressure on surface water capacity and drainage capability and/or coastal squeeze impacting on Annexed habitats and their supporting species by virtue of development and reduction in open space in general.

41 As part of the AA screening, the European sites within the ZOI of the Draft Plan have been assessed 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. infrastructure construction works), a 'receptor' (e.g. a European site), and a pathway between the source and the receptor (e.g. a watercourse which connects the source to a European 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. Table 2 lists each QI or SCI for European sites within the zone of influence of the Draft Plan, while Table 4 provides a high level summary of the potential impacts to European sites, in general, arising from the implementation of the Draft Plan.

3.5 In-Combination Assessment

This step of the assessment aims to identify at this stage, potential significant in-combination impacts of the Draft Plan with other plans and projects on European sites. It is noted that while the Draft Plan provides the strategic and practical management focus for the City over the next 6 years, once adopted, it sits within a hierarchy of statutory documents setting out public policy for amongst other things land use planning,

infrastructure, sustainable development, recreation, environmental protection and environmental management, which have been subject to their own environmental assessment processes, as relevant. In addition, the Plan must comply with relevant higher-level strategic actions / policy and will, in turn, guide lower level strategic action. In order to be realised, projects included in the Draft Plan (in a similar way to other projects from any other sector) will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier Appropriate Assessment, Environmental Impact Assessment and other licencing requirements as appropriate) that form the statutory decision-making and consent-granting framework.

A non-exhaustive list of the plans and strategies assessed as part of the in combination assessment are listed in Table 5.

Table 5: List of Plans and Strategies

Project Ireland 2040 – National Planning Framework (NPF)
Project Ireland 2040 – National Development Plan 2018-2027 (updated 2021- 2030)
Climate Action Plan 2019 (Government of Ireland, June 2019)
Climate Action Plan 2019: To Tackle Climate Breakdown (DCCAE, 2019)
National Adaptation Framework. Planning for a Climate Resilient Ireland (DCCAE, 2018)
National Energy Efficiency Action Plan (2009-2020) (DCENR, 2009) and Ireland's Fourth National Energy Efficiency Action Plan 2017-2020 (DCCAE, 2017)
National Renewable Energy Action Plan (NREAP) (2010-2020)
National Marine Planning Framework (2021)
Offshore Renewable Energy Development Plan (2019)
Strategy for Renewable Energy (2012-2020) (DCENR, 2012)
Dublin City Council Climate Action Plan 2019-2024 (and DCC Climate Change action Plan Annual Progress Report 2020)
Other climate related policy, plans and programmes (e.g. the National Policy Position on Climate Action and Low Carbon Development, Low Carbon Development Act 2015 and White Paper Ireland's Transition to a Low Carbon Energy Future 2015, the National Adaptation Framework 2018)
National Energy Efficiency Action Plan (2009-2020) (DCENR, 2009) and Ireland's Fourth National Energy Efficiency Action Plan 2017-2020 (DCCAE, 2017)
National Renewable Energy Action Plan (NREAP) (2010-2020)
Strategy for Renewable Energy (2012-2020) (DCENR, 2012)

Other energy policy, plans and programmes (e.g. Grid25 and associated Implementation Programme, Ireland's National Renewable Energy Action Plan 2010, Strategy for Renewable Energy 2012-2020, National Energy and Climate Plan 2021-2030 and the Renewable Electricity Policy and Development Framework
Eastern & Midland Regional Assembly (2019) Regional Spatial & Economic Strategy 2019-2031
Ireland's Grid Development Strategy; Your Grid, Your Tomorrow (EirGrid, 2017); and the Draft Grid Implementation Plan 2017-2022 (EirGrid, 2018);
Eastern-Midlands Regional Waste Management Plan 2015–2021
Irish Water National Water Resources Plan – Framework Plan (2021)
Irish Water: Water Services Strategic Plan 2015 / Capital Investment Programme
Greater Dublin Strategic Drainage Study 2005
Transport Strategy for the Greater Dublin Area 2016-2035
Smarter Travel: A Sustainable Transport Future, A new Transport policy for Ireland, 2009 – 2020 (and Review Actions of Smarter Travel Policy)
Greater Dublin Area Cycle Network Plan 2013
River Basin Management Plan for Ireland 2018-2021 (DHPLG, 2018)
Liffey-Dublin Bay River Basin Flood Risk Management Plan 2019; The Planning System and Flood Risk Management – Guidelines for Planning Authorities (DEHLG, 2009)
Greater Dublin Regional Code of Practice for Drainage Works V.6
National Wastewater Sludge Management Plan 2016
Dublin Bay Biosphere Biodiversity Conservation and Research Strategy 2016-2020
Dublin City Invasive Species Action Plan 2016-2020
Dublin City Development Plan 2016 – 2022
Dublin City Biodiversity Action Plan 2015-2020; Will be superseded by the Draft Dublin City Biodiversity Action Plan 2021-2025
Dublin City Parks Strategy 2019 – 2022
Dublin City Tree Strategy 2016-2020
National Countryside Recreational Strategy
National Biodiversity Action Plan 2017-2021

Noise Action Plan for the Dublin Agglomeration 2018-2023
Dublin City Council's Litter Management Plan 2020-2022
Fingal Development Plan 2017-2023
Dun Laoghaire-Rathdown County Development Plan 2016-2022; Will be superseded by the Draft Dun Laoghaire-Rathdown County Development Plan 2022- 2028, upon adoption.
South Dublin County Development Plan 2016-2022; Will be superseded by the Draft South Dublin County Development Plan 2022-2028, upon adoption
Local Area Plans <u>Operational</u> • Ballymun LAP • Parkwest-Cherry Orchard LAP • Ashtown/Pelletstown LAP • George's Quay LAP • Naas Road LAP (2013) • North Fringe LAP (2012)
Strategic Development Zones • Poolbeg West Strategic Development Zone (SDZ) Planning Scheme 2019 • North Lotts and Grand Canal Dock Strategic Development Zone (SDZ) Planning Scheme 2014 • Grangegorman SDZ 2012

Scheme specific masterplans were identified and listed in the previous CDP 2016-2022 for the linear parks proposed along the length of the River Dodder and River Tolka. Ongoing projects include the North East Inner City Greening Strategy and the Stoneybatter Green Strategy. DCC proposals include a new river restoration policy under the WFD to maintain and protect the natural character and ecological value of the river and stream corridors in the city. The Santry River Greenway Project is being progressed as part of a URDF funded project to restore the river to a more natural state whilst making provision for active travel.

It is recognised that while some of the adopted plans above have been subject to AA and include protective measures as necessary, some strategies and guidance documents themselves have not been and as such, have the potential by virtue of projects arising out of them to result in in-combination effects with the Draft Plan. At this strategic stage of the Draft Plan, with policy and objectives still to be developed, the potential for in-combination effects cannot be ruled out. The list of plans and projects will be reviewed during the full AA of the Draft Plan during its development.

4 Conclusions of Screening Assessment Process

The Draft Plan is neither directly connected with nor necessary to the management of European sites and on the basis of objective information, individually, or in combination

with other plans or projects discussed previously, if unmitigated could have significant effects on European sites within and beyond (where a pathway has been reasonably identified) the administrative Boundary of Dublin City Council.

Following an examination, analysis and evaluation of the relevant information, including in particular, the likely nature of the Draft Plan and its potential relationship with European sites, as well as considering other plans and projects, and applying the precautionary principle, it is the professional opinion of the authors of this report that, on the basis of objective information, the Draft Dublin City Development Plan 2022-2028, individually or in combination with other plans or projects, has potential to affect the receiving environment and, consequently, has the potential to affect the conservation objectives supporting the Qualifying Interests / Special Conservation Interests of a range of European site(s). Therefore, the proposed Draft Dublin City Development Plan 2022-2028 is likely to have potential for significant effects on a range of European site(s) and will require an Appropriate Assessment.

Therefore, adopting the precautionary principle, a Stage II AA (including the preparation of a Natura Impact Report) is required for the Draft Plan.

Pursuant to Section 177U of the Planning and Development Act 2000, as amended, and for the purposes of Article 6(3), a formal screening determination has been prepared and will be published alongside the Draft Plan, and appended to the NIR.

References

Benson, L. (2009) Use of inland feeding sites by Light-bellied Brent Geese in Dublin 2008-2009: a new conservation concern? Irish Birds 8: 563-570.

Cronin, M.A., M. J. Jessopp, M.J., and Del Villar, D., (2011) Tracking grey seals on Irelands' continental shelf Report to National Parks & Wildlife Service, Department of Arts, Heritage and Gaeltacht November 2011

Macklin, R., Brazier, B. & Sleeman, P. (2019) Dublin City otter survey. Report prepared by Triturus Environmental Ltd. for Dublin City Council as an action of the Dublin City Biodiversity Action Plan 2015-2020, Dublin: DCC.

NPWS Dataset (2010) NPWS Ancient and Long Established Woodland Inventory, Dublin: The Department of Culture, Heritage and the Gaeltacht .

NPWS Dataset (2013) Irish Semi Natural Grassland Survey 2013, Dublin: National Parks and Wildlife Service.

Scott Cawley (2017) Natura Impact Statement – Information for Stage 2 Appropriate Assessment for the Proposed Residential Development St. Paul's College, Sybill Hill, Raheny, Dublin 5., Dublin: s.n.

Appendix I SCIs returned from the NBDC desk study within the vicinity of DCC.

Species name	Grid Square	Annex[15]	Red List Status
Arctic Tern (Sterna paradisaea)	O13	BD_I	Amber
Bar-tailed Godwit (Limosa lapponica)	O13	BD_I	Amber
Barnacle Goose (Branta leucopsis)	O13	BD_I	Amber
Common Kingfisher (Alcedo atthis)	O03	BD_I	Amber
Corn Crake (Crex crex)	O03	BD_I	Red
Dunlin (Calidris alpina)	O13	BD_I	Red
European Shag (Phalacrocorax aristotelis)	O13	BD_I	Amber
Great Northern Diver (Gavia immer)	O13	BD_I	Amber
Hen Harrier (Circus cyaneus)	O12	BD_I	Amber
Manx Shearwater (Puffinus puffinus)	O13	BD_I	Amber
Merlin (Falco columbarius)	O03	BD_I	Amber
Peregrine Falcon (Falco peregrinus)	O03	BD_I	Green
Red-throated Diver (Gavia stellata)	O13	BD_I	Amber

[15] Birds Directive Annex I/II/III; The Birds Directive is the legislation under which special protection areas are designated for the protection of endangered species of wild birds listed in Annex I of that directive

Roseate Tern (Sterna dougallii)	O23	BD_I	Amber
Sandwich Tern (Sterna sandvicensis)	O23	BD_I	Amber
Whooper Swan (Cygnus cygnus)	O03	BD_I	Amber
European Golden Plover (Pluvialis apricaria)	O03	BD_I BD_II(II) BD_III(III)	Red
Gadwall (Anas strepera)	O03	BD_II(I)	Amber
Eurasian Teal (Anas crecca)	O03	BD_II(I) BD_III(II)	Amber
Mallard (Anas platyrhynchos)	O03	BD_II(I) BD_III(I)	Green
Eurasian Wigeon (Anas penelope)	O03	BD_II(I) BD_III(II)	Red
Common Coot (Fulica atra)	O03	BD_II(I) BD_III(II)	Amber
Common Pochard (Aythya ferina)	O03	BD_II(I) BD_III(II)	Red
Greylag Goose (Anser anser)	O24	BD_II(I) BD_III(II)	Amber
Northern Pintail (Anas acuta)	O03	BD_II(I) BD_III(II)	Red
Tufted Duck (Aythya fuligula)	O03	BD_II(I) BD_III(II)	Red
Common Snipe (Gallinago gallinago)	O03	BD_II(I) BD_III(III)	Red
Northern Shoveler (Anas clypeata)	O12	BD_II(I) BD_III(III)	Red
Common Goldeneye (Bucephala clangula)	O12	BD_II(II)	Red
Eurasian Curlew (Numenius arquata)	O03	BD_II(II)	Red
Northern Lapwing (Vanellus vanellus)	O03	BD_II(II)	Red
Red-breasted Merganser (Mergus serrator)	O13	BD_II(II)	Green
Common Eider (Somateria mollissima)	O12	BD_II(II) BD_III(II)	Amber

Greater Scaup (Aythya marila)	O13	BD_II(II) BD_III(III)	Amber
Common Scoter (Melanitta nigra)	O23	BDII(II) BD_III(III)	Red
Common Swift (Apus apus)	O03	BDII(II) BD_III(III)	Red
Atlantic Puffin (Fratercula arctica)	O23		Amber
Black-legged Kittiwake (Rissa tridactyla)	O13		Amber
Black-tailed Godwit (Limosa limosa)	O13		Amber
Brent Goose (Branta bernicla)	O12		Amber
Common Greenshank (Tringa nebularia)	O12		Green
Common Guillemot (Uria aalge)	O13		Amber
Common Redshank (Tringa totanus)	O03		Red
Common Shelduck (Tadorna tadorna)	O13		Amber
Common Tern (Sterna hirundo)	O13		Amber
Eurasian Oystercatcher (Haematopus ostralegus)	O03		Amber
Great Cormorant (Phalacrocorax carbo)	O03		Amber
Great Crested Grebe (Podiceps cristatus)	O03		Amber
Grey Heron (Ardea cinerea)	O03		Green
Grey Plover (Pluvialis squatarola)	O13		Amber
Herring Gull (Larus argentatus)	O03		Red
Lesser Black-backed Gull (Larus fuscus)	O03		Amber
Little Grebe (Tachybaptus ruficollis)	O03		Amber

Mew Gull (Larus canus)	O03		Green
Northern Fulmar (Fulmarus glacialis)	O23		Green
Northern Gannet (Morus bassanus)	O13		Amber
Purple Sandpiper (Calidris maritima)	O23		Green
Razorbill (Alca torda)	O23		Amber
Red Knot (Calidris canutus)	O13		Amber
Ringed Plover (Charadrius hiaticula)	O13		Amber
Ruddy Turnstone (Arenaria interpres)	O13		Green
Sanderling (Calidris alba)	O13		Green
Tundra Swan (Cygnus columbianus)	O14		Green