Title

**DUKE STREET ANNE STREET SOUTH PUBLIC REALM SCHEME APPROPRIATE ASSESSMENT**

**SCREENING REPORT**

***Development Description***

*“Proposed* *Public Realm Improvements”*

***Location***

*Duke Street, Duke Street Lower & Upper, Lemon Street, Anne’s Lane and Anne Street South at Dublin 2*

***Applicants***

*Dublin City Council*

***Prepared by:***

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*Note: The scope of this report is to provide the necessary information to the competent authority, to assess whether the proposed development alone and in combination with other projects, could have significant effects on Natura 2000 sites in the area in view of the sites conservation objectives, in accordance with Article 6 of the Habitats Directive, and does not purport to be an ecological assessment of the subject site.*

# Introduction

This Appropriate Assessment Screening Report has been prepared by Colette Casey (BSc) in partnership with James O’ Donnell, Planning Consultant (BA, MRUP, Dip APM) on behalf of Dublin City Council who are applying for planning permission for *“Public Realm Improvements”* at Duke Street, Duke Street Lower & Upper, Lemon Street, Anne’s Lane and Anne Street South at Dublin 2.

Colette Casey is an experienced and qualified ecologist. She has obtained a Bachelor's degree in Environmental Science (BSc Hons) at the National University of Ireland, Galway. She has been involved in the completion of numerous Appropriate Assessment Screening Reports (AASR's), Natura Impact statements (NIS's), Construction Environmental Management Plans (CEMP's), Otter and Bat Surveys in the Republic of Ireland. She is an active member of Birdwatch Ireland and Bat Conservation Ireland. She has completed a course with Bat Conservation Trust “British bats, their ecology and conservation”. Colette is a registered member of CIEEM and has been issued a Bat Surveying license by National Parks and Wildlife services.

James O' Donnell is a qualified Town Planner and Project Manager with over 22 years planning experience in both the public and private sector in the west of Ireland, including 6 years’ experience as a local authority planning officer. James has particular experience in the project management and delivery of a wide range of complex planning applications requiring environmental and ecological assessment, in accordance with the requirements of the EU Habitats Directive and EIA Directives.

The site for the proposed development lies 3.12km from the South Dublin Bay SAC and 2.79km from the South Dublin Bay and River Tolka Estuary SPA, which have been designated under the EU Habitats Directive and the Birds Directive, so it is necessary that the potential impacts of the proposed works be assessed by the competent authority, in accordance with Article 6 of the Habitats Directive. This report provides the information necessary for the competent authority to complete an Appropriate Assessment of the potential impacts of the proposed works on sites of European importance in the area. This report has also had regard to the provisions of the March 2021 publication entitled *“OPR Practice Note PN01- Appropriate Assessment Screening for Development Management.*

## Step One: Description of the project/proposal and local site characteristics

The site is located along Duke Street, Duke Street Lower & Upper, Lemon Street, Anne’s Lane and Anne Street South at Dublin 2.

The subject site outlined in red consists of the public realm areas within the afforementioned streets. The subject site is bounded by existing mixed-use buildings which enclose each of the streets.

The Site is located along Duke Street, Duke Lane Upper and Lower, Lemon Street, Anne’s Lane and Anne Street South in Dublin 2.

The subject site outlines in red consists of the public realm areas within the aforementioned streets. The subject site is bounded by existing mixed-use buildings which enclose each of the streets.

The existing environment consists of built up, centrally located urban streets in heart of Dublin City.

## Legislative Background

### EU Nature Conservation Legislation and Natura 2000 Sites.

There are three main types of designation for nature conservation in Ireland: Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Natural Heritage Areas (NHAs). NHAs are designated under the Irish Wildlife Act 1976 (amended 2000). SACs and SPAs are designated under European legislation, the EU Habitats Directive 92/43/EEC (transposed into Irish law in the European Union (Natural Habitats) Regulations, 1997 as amended in 1998 and 2005) and the EU Birds Directive 79/409/EEC, respectively. These European designated sites (SACs and SPAs) are also known as Natura 2000 sites. This means that they are part of the Natura 2000 Network, a network of important ecological sites across the European Union.

Sites are designated on the basis of the presence of certain ‘Qualifying Features’, i.e., the habitats listed under Annex I and the species listed under Annex II of the EU Habitats Directive.

Once a site is designated as a SAC and publicly advertised it is legally protected and becomes a proposed candidate SAC (pcSAC). A three-month period follows during which landowners may lodge an objection to the designation. Details of each proposed SAC are then given to the EU Commission, and thereafter the site is called a “candidate SAC”. Once the sites are approved by the Commission, they are formally designated by the Minister.

### Appropriate Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites

Due to the proximity of the proposed development site to a candidate Special Area of Conservation, also known as a Natura 2000 site, an Appropriate Assessment may be required under the Habitats Directive 92/43/EEC, Articles 6(3) and 6(4), Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites. Such assessments are required where it is identified that a proposed plan or project could have significant impact on a Natura 2000 site. Articles 6(3) and (4) of the Directive, state the following;

*6.3 ‘Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives... 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….’*

*6.4 ‘If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest… the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected...’*

# Methodology

The screening exercise will be conducted in line with the recommendations and protocol set out in the Guidance from the Commission(EC, 2002). This protocol involves a four-stage process to complete an Appropriate Assessment. At each stage, the findings of certain issues and tests will determine whether the next stage in the process is required.

### Appropriate Assessment Stages

The four stages in the Appropriate Assessment process are outlined below:

***Stage 1: Screening***

This step consists of examining the likely potential impacts of a project or plan, alone or in combination with other projects, upon a Natura 2000 site or sites, and considers whether these impacts may be considered significant. If no significant impacts are foreseen, then a ‘finding of no significant effects’ (FONSE) statement is issued to the appropriate authority, and the process is complete. If the effects are considered significant or their significance is unknown, then the process moves on to Stage 2.

***Stage 2: Appropriate Assessment***

Where the screening process has identified potential impacts which are considered significant or unknown, this process examines these potential impacts in detail, in relation to the conservation interests of the Natura 2000 site or sites. Mitigation measures may be suggested to reduce the likelihood or severity of these impacts. If the impacts are still considered to be significant or unknown after this stage is complete, then alternative solutions must be considered (Stage 3).

***Stage 3: Assessment of Alternative Solutions***

If the potential impacts are still considered to be significant or unknown after the Appropriate Assessment stage, then alternative ways of implementing the project are considered at this stage. If no alternative solutions are possible, then it is considered whether the project or plan may go ahead regardless, if imperative reasons of overriding public interest (IROPI) are found.

***Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)***

If significant negative impacts on the Natura 2000 site are unavoidable, and no alternative solutions may be found, then this stage involves the consideration of whether the project or plan may go ahead despite these effects, for ‘imperative reasons of overriding public interest’ (IROPI).

The results of a Stage 1 (Screening) Exercise are detailed in **Section 3** of this report.

# Stage 1: Screening for Appropriate Assessment

## Description of the Plan or Project

The proposed development included *“Public Realm Improvements.”* A Site Layout Plan is included as **Appendix A** to this report.

## Description of the Existing Environment

### Site Location in Relation to Natura 2000 Sites

The proposed site is located on Duke Street, Duke Street Lower & Upper, Lemon Street, Anne’s Lane and Anne Street South at Dublin 2. at Dublin 2. (Easting: 315989.78, Northing: 233746.27). The site for the proposed development lies 3.12km from the South Dublin Bay SAC (Site Code-000210) and 2.79km from the South Dublin Bay and River Tolka Estuary SPA (Site Code-004024) (see **Figure 3.1** below).

**Step Two: Identification of relevant Natura 2000 sites using Source-Pathway-Receptor Model and Compilation of information on QI and Conservation Objectives**

All Natura 2000 sites within a 15km buffer of the proposed development are listed below including details of

1. **European Site (Code),**
2. **List of Qualifying Interest/Special Conservation Interest**
3. **Distance from the Proposed Development**
4. **Receptor/Connection**
5. **Screened IN – Yes/No**
6. **South Dublin Bay SAC (Site code 000210)**

QI’s 4 Habitats <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000210.pdf>

Distance from the proposed development = 3.12km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site. No hydrological connections were identified, and the nature of the surrounding environment being highly developed.

Screened Out

1. **North Dublin Bay SAC (Site code: 000206)**

QIs – 9 Habitats and 1 Species<https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000206.pdf>

Distance from the proposed development 5.56km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Baldoyle Bay SAC (Site code: 000199**)

QIs – 4 Habitats <https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000199.pdf>

Distance from the proposed development 0.66

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Howth Head SAC (Site code: 000202)**

QIs – 2 Habitats <https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000202.pdf>

Distance from the proposed development 11.27km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Rockabill to Dalkey Island SAC (Site code: 003000)**

QIs – 1 Habitat and 1 Species

<https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO003000.pdf>

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Distance from the proposed development 5.56km

Screened Out

1. **Wicklow Mountains SAC (Site code: 002122)**

QIs – 12 Habitats and 1 Species <https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002122.pdf>

Distance from the proposed development 11.54km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Glenasmole Valley SAC (Site code: 001209)**

QIs – 3 Habitats <https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001209.pdf>

Distance from the proposed development 11.70km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Malahide Estuary SAC (Site code: 000205**)

QIs – 6 Habitats <https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000205.pdf>

Distance from the proposed development 13.64km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Ireland’s Eye SAC (Site code: 000725**)

QIs – 2 Habitats<https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000725.pdf>

Distance from the proposed development 14.50km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

Screened Out

1. **Knocksink Wood SAC (Site code: 001209)**

QIs – 3 Habitats <https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001209.pdf>

Distance from the proposed development 14.71km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **South Dublin Bay and River Tolka Estuary SPA (Site code 004042)**

QI’s 1 Habitat and 13 Species <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004042.pdf>

Distance from the proposed development 2.79km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **North Bull Island SPA (Site code 004006)**

QI’s 17 Bird species and 1 Habitat <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004006.pdf>

Distance from the proposed development 5.55km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Baldoyle Bay SPA (Site code 004016**)

QI’s 6 Bird species and 1 Habitat <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004016.pdf>

Distance from the proposed development 10.82km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Wicklow Mountains SPA (Site code 004040)**

QI’s 2 Bird species <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004040.pdf>

Distance from the proposed development 11.80km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Dalkey Islands SPA (Site code 004172)**

QI’s 3 Bird species <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004172.pdf>

Distance from the proposed development 12.96km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Malahide Estuary SPA (Site code 004025)**

QI’s 14 Bird species and 1 Habitat <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004025.pdf>

Distance from the proposed development 13.64km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Howth Head Coast SPA (Site code 004113)**

QI’s 1 Bird species <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004113.pdf>

Distance from the proposed development 13.82km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

1. **Ireland's Eye SPA (Site code 004117**)

QI’s 5 Bird species <http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004117.pdf>

Distance from the proposed development 14.30km

Receptor/Connection: No-due to the lack of connectors/receptors and significant distance from the proposed site

Screened Out

The South Dublin Bay SAC and the South Dublin Bay and River Tolka Estuary SPA have been screened out due to the significant distance between the Natura 2000 sites and the application site. Furthermore there are no identifiable ecological corridors or hydrological connections. As the South Dublin Bay and the South Dublin Bay and River Tolka Estuary SPA are the nearest Natura 2000 sites they will be further discussed below.

**Figures 3.1 *and 3.2* : Map showing project location** in relation to the South Dublin Bay SAC& South Dublin Bay and River Tolka Estuary SPA Natura 2000 Sites. Project location is quite a distance from the Natura sites.

**Figure 3.3:** Map of Dublin Area showing15km Buffer Surrounding Site - from Swords/Malahide in the north to Howth in the East and to Glencullen in the south and Leixlip in the West

The following SPA and SAC sites within 15km buffer zone, were indicated in the map:

**SAC & SPA Sites**

1. Malahide Estuary/Baldoyle Bay,
2. Irelands Eye,
3. Howth Head
4. Wicklow Mountains

**SAC Sites**

1. Rockabill to Dalkey Island,
2. North Dublin Bay,
3. South Dublin Bay,
4. Knocksink Wood
5. Glenasmole Valley.

**SPA Sites**

1. North Bull Island,
2. South Dublin Bay and River Tolka Estuary,
3. Dalkey Islands

# Brief Description of the Natura 2000 Sites which may be affected

#### **Qualifying Features**

Natura 2000 sites are designated on the presence of certain habitats and species which are afforded protection under the Birds and Habitats Directives. These habitats and species are regarded as ‘qualifying features’ of the Natura 2000 sites. The following section provides details on the qualifying features of the Natura 2000 sites in question – South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites. The NPWS site synopses for the designated sites are given as **Appendix B & C** to this report.

**South Dublin Bay SAC Habitat Information including Habitat Code & Name, Cover (ha) and Representativity:**

1140 - Mudflats and sandflats not covered by seawater at low tide - 719.9478ha and B

1210 - Annual vegetation of drift lines – 0.01ha and A

1310 - Salicornia and other annuals colonising mud and sand – 0.01 and A

2210 - Embryonic shifting dunes – 0.03ha and A

**South Dublin Bay and River Tolka Estuary SPA Habitat Information including Habitat Code & Name, Cover (ha) and Representativity:**

A999 - Wetlands and Waterbirds, N/A and N/A

For species, a value is given for ‘Population Significance’. This value is based on the relative density or size of the population of that species within the Natura 2000 site with that of the national population. Population Significance is ranked on a scale from A to D where A - 100>=p>15%, B - 15>=p>2%, C - 2>=p>0% and D - Non-significant population. The SCI species found in the South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites are outlined in List 4.2.

**List 4.3 South Dublin Bay and River Tolka Estuary SPA SCI Species Information including Species Code, Latin & English names and Population Significance.**

A046 - Branta bernicla hrota - Light-bellied Brent Goose –C

A130 – Haematopus ostralegus - Oystercatcher - C

A137 – Charadrius hiaticula - Ringed Plover - C

A141 – Pluvialis squatarola - Grey Plover - C

A143 - Calidris canutus- Knot - B

A144 - Calidris alba –Sanderling-B

A149 – Calidris alpina – Dunlin - C

A157 – Limosa lapponica - Bar-tailed Godwit – B

A162 – Tringa totanus – Redshank – C

A179 – Larus ridibundus - Black-Headed Gull – C

A192 – Sterna dougallii - Roseate Tern – A

A193 – Sterna hirundo – Common Tern – B

A194 – Sterna paradisaea – Artic Tern – B

#### **Potential Pressures and Threats to the Natura 2000 Sites**

The European Nature Information System (EUNIS) website contains data on all Natura 2000 sites, including details of the main threats to and pressures on their qualifying features. Potential threats to and pressures on the qualifying features of the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites are listed in **Lists 4.4 & 4.5.**

**Potential Pressures and Threats to the South Dublin Bay SAC Natura 2000 Site**

**Twelve activities listed hereunder including location, intensity and influence.**

Industrial or commercial areas, Outside, High & Negative

Walking, horseriding and non-motorised vehicles, Inside, High and Negative

Non-motorized nautical sports, Inside, Medium and Negative

Reclamation of land from sea, estuary or marsh, Outside, High and Negative

Accumulation of organic material, Inside, High and Negative

Bait digging / collection, Inside, Medium and Negative

Roads, motorways, Outside, Low and Negative

Paths, tracks, cycling tracks, Inside, Medium and Negative

Urbanised areas, human habitation, Outside, High and Negative

Nautical sports, Inside, Medium and Negative

Discharges, Both, Medium and Negative

Marine water pollution, Both, Medium and Negative

**List 4.5 Potential Pressures and Threats to the South Dublin Bay and River Tolka Estuary SPA Natura 2000 Site**

**10 number activities listed hereunder including location, intensity and influence.**

Industrial or commercial areas, Outside, High and Negative

Leisure fishing, Inside, Medium and Negative

Nautical sports, Inside, Medium and Negative

Bait digging / collection Leisure fishing, Inside, Medium and Negative

Discharges Leisure fishing, Inside, High and Negative

Walking, horseriding and non-motorised vehicles, Inside, High and Negative

Roads, motorways, Outside , Medium and Negative

Urbanised areas, human habitation, Outside, High and Negative

Eutrophication (natural), Inside, Medium and Negative

Reclamation of land from sea, estuary or marsh, Outside, High and Negative

#### **Conservation Objectives of the Natura 2000 Sites**

Once a site has been designated as a Natura site, a management plan should be put together for the site which sets out the Conservation Objectives, these can be Site specific Conservation Objects (SSCO) or Generic Conservation Objectives for the site. Every effort should then be made to ensure that these objectives are fulfilled, in order to prevent potential impacts to the qualifying features of the site and maintain as far as possible their favourable conservation status.

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

Favourable conservation status of a habitat is 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.

The favourable conservation status of a species is 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.

Management plans have been published for the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites**.** Qualifying interests and objectives (bulleted) are listed below

**South Dublin Bay SAC (Site Code 000210)**

1140- Mudflats and sandflats not covered by seawater at low tide

* Area of permanent habitat is stable or increasing, subject to natural processes
* Maintain the extent of the Zostera-dominated community, subject to natural processes.
* Conserve the high quality of the Zostera-dominated community, subject to natural processes
* Conserve the following community type in a natural condition: Fine sands with Angulus tenuis community complex

**South Dublin Bay and River Tolka Estuary SPA (Site Code 004024)**

Light-bellied Brent Goose (Branta bernicla hrota) [A046]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by light-bellied brent goose, other than that occurring from natural patterns of variation

Oystercatcher (Haematopus ostralegus) [A130]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by oystercatcher, other than that occurring from natural patterns of variation

Ringed Plover (Charadrius hiaticula) [A137]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by ringed plover, other than that occurring from natural patterns of variation

Grey Plover (Pluvialis squatarola) [A141]

* No conservation objectives published

Knot (Calidris canutus) [A143]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by knot, other than that occurring from natural patterns of variation

Sanderling (Calidris alba) [A144]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by sanderling, other than that occurring from natural patterns of variation

Dunlin (Calidris alpina) [A149]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by dunlin, other than that occurring from natural patterns of variation

Bar-tailed Godwit (Limosa lapponica) [A157]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by bar-tailed godwit, other than that occurring from natural patterns of variation

Redshank (Tringa totanus) [A162]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by redshank, other than that occurring from natural patterns of variation

Black-headed Gull (Chroicocephalus ridibundus) [A179]

* Long term population trend stable or increasing
* No significant decrease in the range, timing or intensity of use of areas by black-headed gull other than that occurring from natural patterns of variation

Roseate Tern (Sterna dougallii) [A192]

* No significant decline in passage population & individuals
* No significant decline in distribution: roosting areas
* No significant decline in prey biomass available
* No significant increase in barriers to connectivity
* Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns

Common Tern (Sterna hirundo) [A193]

* No significant decline in breeding population abundance and apparently occupied nests
* No significant decline in productivity rate, fledged young per breeding pair
* No significant decline in passage population & individuals
* No significant decline in distribution of breeding colonies
* No significant decline in distribution: roosting areas
* No significant decline in prey biomass available
* No significant increase in barriers to connectivity
* Human activities should occur at levels that do not adversely affect the breeding common tern population
* Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns

Arctic Tern (Sterna paradisaea) [A194]

* No significant decline in passage population
* No significant decline in distribution: roosting areas
* No significant decline in prey biomass available
* No significant increase in barriers to connectivity
* Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns

Wetland and Waterbirds [A999]

* The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192 hectares, other than that occurring from natural patterns of variation

Therefore, the qualifying interests for the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA have been screened out for this report due to the distance between the SAC and application site, the lack of hydrological and ecological pathways and the surrounding environment. The distance between the SPA and the application site is significant and the level of development in the surrounding area makes it highly unlikely that any qualifying bird species nest or breed on site. Therefore, none of the Qualifying interests listed above are predicted to be impacted on by the proposed development.

# Soils, Geology & Hydrogeology

The Geological Survey of Ireland (GSI) website was consulted for available geological / hydrological information. The site is underlain by man-made materials.Topsoil on site consists of man-made materials . The groundwater vulnerability within the site is rated as M Moderate, meaning that the groundwater vulnerability in the area is High. Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated by human activities.

**List 5.1** Details information gleaned from catchments.ie on the water status of the groundwater waterbody. This concludes that the groundwater is rated as good overall status.

**Dublin Waterbody Information**

Name Dublin

Code IE\_EA\_G-008

Catchments 07 Boyne, 08 Nanny-Delvin, 09 Liffey and Dublin Bay and 14 Barrow

Longitude 53.3593898

Latitude -6.4891473

Cycle 1 RBD Eastern

Local Authority South Dublin Council

Waterbody Category Groundwater

WFD Risk Not at Risk

Protected Area N/A

High Status Objective No

Heavily Modified N/A

Artificial N/A

Area (km2) N/A

Length (km) N/A

Transboundary No

GW 2013-2018 Overall Groundwater Status Good

# Other Plans and Projects in the Area

It is a requirement of the Appropriate Assessment process to consider the ‘in combination’ effects of the proposed development with other plans and projects in the area. **Table 6.1** below gives details of the other plans and projects in the area which may be affecting the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites.

**List 6.1: Other Plans and Projects Affecting the Natura 2000 Site**

1. **Dublin City Council Development Plan 2022- 2028**

Designated Sites, Habitats and Species Policies and Objectives Natural Heritage and Biodiversity Policies and Objectives, Natural Water Systems Polices

Positive Impact

1. **River Basin Management Plan for Ireland 2018-2021**

The River Basin Management Plan for Ireland, issued in April 2018, sets out a number of objectives and measures for all national water bodies which aim: to prevent the deterioration

of water bodies and to protect, enhance and restore them with the aim of achieving at least good status and (2) to achieve compliance with the requirements for designated protected areas

Positive Impact.

1. **NPWS Conservation Management Plans**

A Conservation Management Plan is in place for the South Dublin Bay SAC and the South Dublin Bay and River Tolka Estuary SPA Natura 2000 site and its aims and objectives are outlined above

Positive Impact

1. **Inland Fisheries Ireland (IFI) Corporate Plan 2022 – 2025**

Goals:

To improve the protection and conservation of the resource.

To develop and improve wild fish populations.

To increase the number of anglers.

To generate a better return for Ireland from the resource

Positive Impact

1. **Planning Applications in the Area**

A search was carried out on Dublin City Council’s online planning system. It was ascertained that there has been a large number of planning applications in the area.

Mainly these planning applications applied for changes of use, signage and other commercial alteration. Due to nature of the area already being well developed as a

mixed-use commercial district, with no large scale developments or building works being carried out within the application site, no impacts are expected in this regard.

Neutral Impact

# Screening Matrix for Appropriate Assessment in line with EU Commission Guidance

Having established the extent of the proposed project and the details of the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites, a screening assessment for possible impacts can be generated. This section follows the format of the Screening Matrix provided in Annex 2 of the following document;

“*Assessment of plans and projects significantly affecting Natura 2000 sites- Methodology guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission, 2001”.*

## 7.1: Step Three: Assessment of Likely Significant Effects

1. **Identify all potential direct and indirect impacts that may have an effect on the conservation objective of a European site taking into account the size/scale of the project under the following headings:**

**IMPACT no. 1**

**Construction Phase (Examples)**

* Vegetation Clearance
* Demolition
* Surface water runoff from excavation/infill
* Dust, noise, vibration
* Lighting disturbance
* Impact on groundwater
* Storage of excavation/construction materials
* Access to site
* Pests

**Possible significance of Impacts (Duration/Magnitude)**

The application site is located at a distance from the Natura 2000 sites that it will not result in any identifiable impacts or disturbance.

There is no hydrological connection between the subject site and the Natura 2000 site.

Given that the existing environment is largely developed and has been used for commercial and retail purposes for a prolonged prior of time no impacts are expected.

No sewers will be redirected during the construction phase and all excavation works will not occur at a depth likely to affect the Natura 2000 sites.

Due to the nature of the improvements to be for improved drainage and resurfacing works, the construction phase is unlikely to result in significant effects/impacts.

Therefore, significant impacts/effects can be ruled out during the construction phase of the proposed development.

**IMPACT no.2**

**Operation Phase (Examples)**

* Direct emissions to air and water
* Surface water runoff containing contaminant/sediment
* Lighting Disturbance
* Noise/vibration
* Changes to water/groundwater due to drainage/abstraction
* Presence of people, vehicles and activities
* Physical presence of structures (collision risks)
* Potential for accidents/incidents

**Possible significance of Impacts (Duration/Magnitude)**

The proposed development is to be designed in accordance with Dublin City Council Sustainable Drainage Design and Evaluation Guide (2021). This is likely to attenuate surface runoff to the existing combined drainage system, which is to be maintained. It is noted that no site-specific mitigation measures are required and that the measures detailed comply with best practice construction management principles.

SUDS are a mandatory requirement intended to avoid flooding and to give effect to the environmental protections under the Water Framework Directive 2000/60/EC generally. The proposed SUDS measures are not directed at avoiding or reducing any harmful effect on a European Site. As such, the SUDS measures incorporated into the scheme are not considered to be mitigation in the context of AA.

It is not expected that water runoff arising from the improvements will result in any significant effects on the Natura 2000 site in this regard.

There are no identifiable hydrological connections (indirect or direct) to any European sites, and the separation distance is significant. As such, that there is no real likelihood of any significant effects on the surrounding Natura 2000 sites in this regard.

**IMPACT no.3**

In combination/ other:

**Possible significance of Impacts (Duration/Magnitude)**

No impacts are expected in terms of emissions. Due to the nature of the application not including or effecting the public sewers in the areas. Drainage will be maintained in areas with the proposed works including SUDS, provide this is maintained and there is sufficient capacity no impacts/effects are expected.

1. **Describe any likely changes to the European site:**

**IMPACTS**

Examples of the type of changes to give consideration to include:

* Reduction/fragmentation of habitat
* Disturbance to QI species
* Habitat/species fragmentation
* Reduction/fragmentation in species density
* Changes in key indicators of conservation status value
* Changes to areas of sensitivity/threats to QI
* Interference with the key relationships that define the structure or ecological function of the site

**Possible significance of Impacts (Duration/Magnitude)**

None.

The application site is not located within a European site, and is surrounded by commercial units and retail outlets, therefore there is no risk of habitat loss, fragmentation or any effects on the Qualifying Interests directly or ex-situ.

The significant distance between the proposed development site and any European sites, and the absence of any identifiable direct or indirect ecological pathways is such that the proposal will not result in any likely changes to the European sites that comprise part of the Natura 2000 network.

1. **Are ‘mitigation’ measures necessary to reach a conclusion that likely significant effects can be ruled out at screening?** No

The findings of the screening matrix are summarised in **Section 7.2** below.

## Section 7.2 Stage 1 - Screening Matrix for the Proposed Development

**Brief Description of the Project or Plan**

**Location:** The proposed site lies at Duke Street, Duke Street Lower & Upper, Lemon Street, Anne’s Lane and Anne Street South at Dublin 2. (Grid Ref: Easting: 315989.78, Northing: 233746.27)

**Distance from Designated Site**: The site for the proposed development lies 3.12km from the South Dublin Bay SAC and 2.79km from the South Dublin Bay and River Tolka Estuary SPA

**Brief Description of the Project:** Planning permission is being sought “*Public Realm Improvements”*

A Site Layout Plan for the proposed development is included as **Appendix A** to this report.

**Brief Description of the Natura 2000 Site**

**Site Designation Status**: The South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA are designated under EU Habitats Directive (92/43/EEC) and EU Birds Directive (79/409/EEC).

**Qualifying Features**

The South Dublin Bay SAC is of conservation significance due to the presence of 4 habitats which is listed under Annex I of the EU Habitats Directive.

The South Dublin Bay and River Tolka Estuary SPA is designated for the presence of 13 bird species and 1 habitat listed on Annex I of the EU Birds Directive (see below).

**Qualifying Habitats -** **South Dublin Bay SAC**

* Mudflats and sandflats not covered by seawater at low tide
* Annual vegetation of drift lines
* Salicornia and other annuals colonising mud and sand
* Embryonic shifting dunes

**Qualifying Species-** **South Dublin Bay and River Tolka Estuary SPA**

* Light-bellied Brent Goose *(Branta bernicla hrota*)
* Oystercatcher (*Haematopus ostralegus)*
* Ringed Plover (*Charadrius hiaticula)*
* Grey Plover (*Pluvialis squatarola*)
* Knot *(Calidris canutus)*
* Sanderling (*Calidris alba)*
* Dunlin (*Calidris alpina)*
* Bar-tailed Godwit (*Limosa lapponica)*
* Redshank (*Tringa totanus)*
* Black-headed Gull (*Chroicocephalus ridibundus)*
* Roseate Tern (*Sterna dougallii)*
* Common Tern (*Sterna hirundo)*
* Arctic Tern (*Sterna paradisaea)*
* Wetland and Waterbirds [A999]

(EU Habitats Directive 92/43/EEC/ EU Birds Directive 79/409/EEC).

Full details of the sites are found in South Dublin Bay SAC Site Synopses included as **Appendix B** to this report.

Full details of the sites are found in South Dublin Bay and River Tolka Estuary SPA Site Synopses included as **Appendix C** to this report

**Unit Size:**

**South Dublin Bay SAC– 733.4207948 ha**

**South Dublin Bay and River Tolka Estuary SPA – 2193.166418 ha**

## ASSESSMENT CRITERIA

**Describe the individual elements of the project likely to give rise to impacts on the Natura 2000 site:**

There are no impacts predicted on South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA due to the proposed development, due to the distance from the proposed development, the lack of hydrological and/or ecological connections and the nature of the surrounding environment being build up and developed. Therefore, the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA have been screened out for these reasons.

**Describe any likely direct, indirect or secondary impacts of the project on the Natura 2000 site by virtue of the following;**

* **Size and Scale**

The development site comprises an overall area of 5446 sqm. At this size and scale, and due to the fact that the works will be located entirely outside the designated area, it is not expected that the development will have any significant impact (direct, indirect or secondary in nature) on the Natura 2000 sites in this regard.

* **Land-Take**

The proposed works will be entirely located outside the designated site and so there will be no impacts in this regard.

* **Distance from Natura 2000 site or key features of the site**

The site for the proposed development lies 3.12km from the South Dublin Bay SAC and 2.79km from the South Dublin Bay and River Tolka Estuary SPA**.** There are no impacts expected due to the significant distance between the Lough Corrib SAC and the development site.

* **Resource Requirements**

It is not expected that the proposed development will have any significant impact (direct, indirect or secondary in nature) on the designated sites in this regard.

* **Emissions**

“The existing combined drainage system will be maintained and where possible, existing gully connections will be reused. The proposed development is to be designed, in accordance with Dublin City Council Sustainable Drainage Design and Evaluation Guide (2021). No emissions are expected to arise from the drainage system set out provide that, there is sufficient capacity for water runoff, drainage systems are maintained and no blockages occur. Therefore, no impacts/ effects are predicted from the proposed development in this regard.

**Excavation Requirements**

No impacts are expected on the Natura 2000 site in this regard.

* **Transportation Requirements**

During the construction phase of the proposed development, there will be a slight increase in the volume of traffic in the area for a short time. It is not expected that this slight increase will result in direct, indirect or secondary impacts on the Natura 2000 site in this regard.

* **Duration of construction, operation, decommissioning**

The construction phase of the proposed development will last approximately 2 years. It is expected that the new pavement will remain for 100 years or more. The construction & operational phase of the proposed development is unlikely to result in indirect on the Natura 2000 site, due to lack of pathways/connectors.

**Describe any likely changes to the site arising as a result of the following;**

* **Reduction of Habitat**

There will be no changes in this respect.

* **Disturbance to Key Species**

There will be no changes in this respect.

* **Habitat or Species Fragmentation**

There will be no changes in this respect.

* **Reduction in species density**

There will be no changes in this respect.

* **Changes in key indicators of conservation value**

There will be no changes in this respect.

* **Climate change**

There will be no changes in this respect.

**Describe any likely impacts on the Natura 2000 site as a whole in terms of the following;**

* **Interference with key relationships that define the structure and function of the site**

No potential impacts which are likely to interfere with the key relationships that define the structure or function of the site are expected

**Provide Indicators of significance as a result of the identification of effects set out above in terms of the following;**

* **Loss**

No loss is expected.

* **Fragmentation**

No fragmentation is expected.

* **Disruption**

No disruption is expected.

* **Disturbance**

No disturbance is expected.

* **Change to key elements of the site**

No change is expected

**Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.**

No significant impacts/effects are predicted due to the proposed development on the surrounding Natura 2000 site. The South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA have been screened out due to distance, lack of pathway and no identifiable corridors ecological or hydrological.

# Conclusions

Planning is being sought for *“Public Realm Improvements”* at Duke Street, Duke Street Lower & Upper, Lemon Street, Anne’s Lane and Anne Street South at Dublin 2. A Site Layout Plan for the proposed development is included as **Appendix A** to this report. The screening exercise examined impacts on the South Dublin Bay SAC & South Dublin Bay and River Tolka Estuary SPA Natura 2000 site.

The existing combined drainage system will be maintained and where possible existing gully connections will be reused and SuDs measures implemented.. No emissions are expected to arise from the drainage system set out provided that, there is sufficient capacity for water runoff, drainage systems are maintained and no blockages occur. Therefore, no impacts/ effects are predicted from the proposed development in this regard.

SUDS are a mandatory requirement intended to avoid flooding and to give effect to the environmental protections under the Water Framework Directive 2000/60/EC generally. The proposed SUDS measures are not directed at avoiding or reducing any harmful effect on a European Site. As such, the SUDS measures incorporated into the scheme are not considered to be mitigation in the context of AA.

The site for the proposed development lies 3.12km from the South Dublin Bay SAC and 2.79km from the South Dublin Bay and River Tolka Estuary SPA. At this distance and due to the nature of the surrounding area, the level of development already present, it is not expected that the proposed development will give rise to any direct impacts on the Natura 2000 sites in question.

Therefore, the conclusion of this screening exercise is that no significant effects are expected on the qualifying interests or conservation objectives of the surrounding Natura 2000 sites, as a result of the proposed development in question, alone or in combination with the other plans and projects in the area. This report is therefore issued as a ‘Finding of No Significant Effects’ (FONSE) statement, in accordance with the EU Commission’s methodological guidance (EC, 2001)

# APPENDIX A- Site Layout Plan

## Drawing Name: P-20 Proposed Layout is included in the Part 8 Application and text description is outlined hereunder for each street.

Description

This is a plan drawing showing the proposed new layout of the area. There is a red line around the project area, which consists of Duke St, Anne Street South, Anne’s Lane, Duke Lane Upper, Duke Lane Lower, and Lemon Street.

The following layout is proposed for each street:

Duke Lane Lower:

This service laneway is a Cul De Sac off Duke Street, with a number of accesses into off-street service areas. The laneway is 6.6m wide and runs north-south. It is shown as having an asphalt surface with a narrow 1m wide paved Leinster granite flag footpath extending part of the way into the laneway to match the existing layout.

There are no trees or benches proposed for Duke Lane Lower due to its narrow width and high volume of large delivery vehicles.

Duke St:

This is an approximately 11.8m wide street running in an east-west direction, linking Grafton Street to Dawson Street. The western end of the street has a 3.25m wide carriageway, fully paved in Iberian granite flags, with an 18m long loading bay for delivery vehicles on the southern side of the carriageway. The eastern section of carriageway is surfaced in asphalt from Duke Lane Upper as far as Dawson St and has a raised kerb.

The footpaths are paved in Leinster granite flags, with the paving pattern running perpendicular to the paving in the carriageway. The average footpath width is approximately 3.1m but is wider in some locations where buildouts have been added. There is a wide granite kerb and a dished drainage channel between the footpath and the carriageway.

The proposed footpath width varies all along Duke St but has been widened where possible in all locations. There is one pinch point of 1.8m at the Duke Street Gallery where an existing private entry extends into the footpath. A 1.8m wide clear accessible route will be provided along both the north and south footpaths for the full length of the street. Designated crossing points are provided at each junction with tactile paving.

A section of footpath on Duke Street East has been widened into the carriageway to create a space for two additional tree pits, two public benches and a water bottle filling station. These features are away from the accessible walking route.

There are five new tree pits shown on Duke Street West, with low level planting, each tree pit has a kerb upstand around them. The perimeter of the tree pit has been maximised to provide as much of a guidance route as possible. Three new solid base public benches have been added at the western end of the street, these benches have been positioned between the kerbed tree pits, away from the accessible walking route.

A disabled car park space has also been added to Duke Street East, this has a dished kerb to allow wheel chair users to get onto the adjacent footpath. A dished crossing point has been included at the Duke Street-Dawson Street junction.

Retractable bollards are shown on the carriageway to prevent cars entering pedestrianised areas after 11am. No bollards are shown on the footpath.

There are no bike stands proposed on Duke Street.

Subject to receiving permission from building owners all public lighting will be wall mounted, removing the need for lamp poles on the street. All other street furniture will be minimised and located away from the accessible route.

Lemon Street

This street is on average 5.4m wide and runs east to west, linking Grafton Street to Duke Lane Upper. It will be fully pedestrianised so has Iberian granite paving flags for the full width of the street, with a dished drainage channel running along its length.

The southern section of the street will have low level planting with upstand kerbs and three solid base benches. Some play equipment will also be installed between the benches and planted areas, away from the clear accessible route.

Duke Lane Upper

This street is on average 6.65m wide and runs north-south, linking Duke St to Anne Street South. The 3.25m wide carriageway is paved in small Iberian granite setts, with a dished drainage channel and kerb between the carriageway and the footway.

A 2.1m wide footpath is provided on the western side of the lane, and 1.6m wide on the east. The western footpath narrows locally at the junctions to allow for vehicular turning movements. Both footpaths are paved in Leinster Granite flags, the paving pattern is perpendicular to the direction of the carriageway paving.

A designated crossing point is provided at either end of the laneway and also at the junction between Lemon Street and the Royal Hibernian Way.

There are no trees or benches proposed for Duke Lane Upper due to its narrow width.

Anne Street South:

This is an approximately 11.8m wide street running in an east-west direction, linking Grafton Street to Dawson Street. The western carriageway is 3.25m wide and is paved in Iberian granite flags, with two 12m long loading bays for delivery vehicles on the southern side of the carriageway. The eastern section of carriageway, from Duke Lane Upper to Dawson St, is also 3.25m wide and is paved in small Iberian Granite setts. There is a wide granite kerb and a dished drainage channel between the footpath and the carriageway.

The footpaths are paved in Leinster granite flags, with the paving pattern running perpendicular to the paving in the carriageway. The average footpath width is approximately 3m but is wider at the location of the buildouts. The existing buildout on the east side of South Anne Street is being maintained and a new wider footpath buildout is being added to the southern footpath to west of the Duke Lane Upper junction.

The proposed footpath width varies all along Anne Street South but has been widened where possible in all locations. There is one pinch point at no.30, on the southern footpath, where the footpath narrows to 2.1m locally, where an existing private entry extends into the footpath. A 1.8m wide clear accessible route will be provided along both the north and south footpaths for the full length of the street. Designated crossing points are provided at each junction with tactile paving.

There are five new tree pits shown on the western end of Anne Street South, with low level planting around them. Each tree pit has a kerb upstand around them, the perimeter of the tree pit has been maximised to provide as much of a guidance route as possible. Four new solid base public benches have been added, these benches have been positioned between the kerbed tree pits, away from the accessible walking route.

Two additional tree pits have been added to the footpath buildout on the eastern side of Anne Street South, with low level planting and an upstand kerb surround. These features are away from the accessible walking route.

Retractable bollards are shown on the carriageway to prevent cars entering pedestrianised areas after 11am. No bollards are shown on the footpath.

The last 25m at the eastern end of Anne Street South will have a raised kerb and an asphalt surface on the carriageway. The existing five bike stands have been maintained at this location, they are positioned on the carriageway, with a raised kerb between the bike stand and the footpath. One additional tree pit is proposed in the carriageway at the eastern end of the bike stands.

A dished crossing point has been included at the Duke Street-Dawson Street junction.

Subject to receiving permission from building owners all public lighting will be wall mounted, removing the need for lamp poles on the street. All other street furniture will be minimised and located away from the accessible route.

Anne’s Lane

This Cul de Sac laneway varies from 6m to 6.5m wide, it starts running north to south off Anne Street South and has a service lane spur off to the west, with a further spur to the south. It has a number of accesses into off-street parking and service areas.

The carriageway width varies, down to a minimum width of 3.25m. The majority of the carriageway will be surfaced in asphalt with just one section, along the eastern side of the Sporting Emporium, paved in small Iberian granite setts.

Narrow 1.1m wide footpaths are provided near the junction with Anne Street South, to allow for vehicular turning movements. The western footpath then widens to an average of 2.2m for the remaining north-south section of the laneway. This generally matches the existing footpath arrangement.

There are no trees or benches proposed for Anne’s Lane due to its narrow width.

# APPENDIX B-NPWS Site Synopses for South Dublin Bay SAC

**Site Name: South Dublin Bay SAC**

**Site Code: 000210**

This site lies south of the River Liffey in Co. Dublin, and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (\* = priority; numbers in brackets are Natura 2000 codes):

[1140] Tidal Mudflats and Sandflats

[1210] Annual vegetation of drift lines

[1310] Salicornia and other annuals colonising mud and sand

[2110] Embryonic shifting dunes

The bed of Dward Eelgrass (*Zostera noltii*) found below Merrion Gates is the largest stand on the east coast. Green algae (*Enteromorpha spp.* and *Ulva lactuca*) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area. Species include *Fucus spiralis, F. vesiculosus, F. serratus, Ascophyllum nodosum* and *Pelvetia canaliculata.*

Several small, sandy beaches with incipient dune formation occur in the northern and western sectors of the site, notably at Poolbeg, Irishtown and Merrion/ Booterstown. The formation at Booterstown is very recent. Drift line vegetation occurs in association with the embryonic and incipient fore dunes. Typically drift lines occur in a band approximately 5 m wide, though at Booterstown this zone is wider in places. The habitat occurs just above the High Water Mark and below the area of embryonic dune. Species present are Sea Rocket (*Cakile maritima*), Frosted Orache (*Atriplex laciniata*), Spear-leaved Orache (*A. prostrata*), Prickly Saltwort (*Salsola kali*) and Fat Hen (*Chenopodium album*). Also occurring is Sea Sandwort (*Honkenya peploides*), Sea Beet (*Beta vulgaris subsp. maritima*) and Annual Sea-blite (*Suaeda maritima*). A small area of pioneer saltmarsh now occurs in the lee of an embryonic sand dune just north of Booterstown Station. This early stage of saltmarsh development is here characterised by the presence of pioneer stands of glassworts (*Salicornia spp*.) occurring below an area of drift line vegetation. As this is of very recent origin, it covers a small area but ample areas of substrate and shelter are available for the further development of this habitat.

Lugworm (*Arenicola marina*), Cockles (*Cerastoderma edule*) and annelids and other bivalves are frequent throughout the site. The small gastropod *Hydrobia ulvae* occurs on the muddy sands off Merrion Gates.

South Dublin Bay is an important site for waterfowl. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. The principal species are Oystercatcher (1215), Ringed Plover (120), Sanderling (344), Dunlin (2628) and Redshank (356) (average winter peaks 1996/97 and 1997/98). Up to 100 Turnstones are usual in the south bay during winter. Brent Goose regularly occur in numbers of international importance (average peak 299). Bar-tailed Godwit (565), a species listed on Annex I of the E.U. Birds Directive, also occur.

Large numbers of gulls roost in South Dublin Bay, e.g. 4,500 Black-headed Gulls in February 1990; 500 Common Gulls in February 1991. It is also an important tern roost in the autumn, regularly holding 2000-3000 terns including Roseate Terns, a species listed on Annex I of the E.U. Birds Directive. South Dublin Bay is largely protected as a Special Protection Area.

At low tide the inner parts of the south bay are used for amenity purposes. Baitdigging is a regular activity on the sandy flats. At high tide some areas have windsurfing and jet-skiing.

This site is a fine example of a coastal system, with extensive sand and mudflats, and incipient dune formations. South Dublin Bay is also an internationally important bird site.

# APPENDIX B-NPWS Site Synopses for South Dublin Bay and River Tolka Estuary SPA

**Site Name: South Dublin Bay and River Tolka Estuary SPA**

**Site Code: 004024**

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.

In the south bay, the intertidal flats extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. There is a bed of Dwarf Eelgrass (Zostera noltii) below Merrion Gates which is the largest stand on the east coast. Green algae (Ulva spp.) are distributed throughout the area at a low density. The macroinvertebrate fauna is well-developed, and is characterised by annelids such as Lugworm (Arenicola marina), Nephthys spp. and Sand Mason (Lanice conchilega), and bivalves, especially Cockle (Cerastoderma edule) and Baltic Tellin (Macoma balthica). The small gastropod Spire Shell (Hydrobia ulvae) occurs on the muddy sands off Merrion Gates, along with the crustacean Corophium volutator. Sediments in the Tolka Estuary vary from soft thixotrophic muds with a high organic content in the inner estuary to exposed, well-aerated sands off the Bull Wall. The site includes Booterstown Marsh, an enclosed area of saltmarsh and muds that is cut off from the sea by the Dublin/Wexford railway line, being linked only by a channel to the east, the Nutley stream. Sea water incursions into the marsh occur along this stream at high tide. An area of grassland at Poolbeg, north of Irishtown Nature Park, is also included in the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex – all counts for wintering waterbirds are five year mean peaks for the period 1995/96 to 1999/2000. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. An internationally important population of Light-bellied Brent Goose (368) occurs regularly and newly arrived birds in the autumn feed on the Eelgrass bed at Merrion. At the time of designation the site supported nationally important numbers of a further nine species: Oystercatcher (1,145), Ringed Plover (161), Grey Plover (45), Knot (548), Sanderling (321), Dunlin (1,923), Bar-tailed Godwit (766), Redshank (260) and Black-headed Gull (3,040). Other species occurring in smaller numbers include Great Crested Grebe (21), Curlew (127) and Turnstone (52). Little Egret, a species which has recently colonised Ireland, also occurs at this site.

South Dublin Bay is a significant site for wintering gulls, with a nationally important population of Black-headed Gull, but also Common Gull (330) and Herring Gull (348). Mediterranean Gull is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter.

Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin – this is included within the site. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey in 1995 recorded nationally important numbers of Common Tern nesting here (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007.

South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).

The South Dublin Bay and River Tolka Estuary SPA is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Sandymount Strand/Tolka Estuary is also a Ramsar Convention site.