



Screening for Appropriate Assessment

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1 Introduction

Dublin City Council (DCC) is preparing a draft Local Area Plan (LAP) for Ballymun under the Planning and Development Act 2000 (as amended). A Local Area Plan sets out planning policies and objectives for a specifically defined area over an initial 6-year period, which may be extended by the local authority, for a period of up to 10 years. As required by legislation, Appropriate Assessment must be carried out to assess the potential effects of the proposed plan, on its own or in combination with other plans or projects, on one or more Natura 2000 sites, also referred to as 'European sites'.

The European sites network includes those sites of the highest biodiversity importance for rare and threatened habitats and species. To help tackle issues of habitat destruction and degradation with consequent loss of biodiversity, the EU introduced the Birds and Habitats Directives to help safeguard key sites. The aim of both of these directives is to maintain, and where possible restore the favourable conservation status of natural habitats and species across Europe. Europe's most important wildlife sites are referred to as Natura 2000 sites, and legislation ensures that strong measures are put in place to protect them. Within Ireland the Natura 2000 network comprises Special Areas of Conservation (SACs, including candidate SACs), and Special Protection Areas (SPAs, including proposed SPAs).

The Birds and Habitats Directives require EU Member States to consider the possible nature conservation implications of any plan or project on the Natura 2000 site network prior to making a decision to allow that plan or project to proceed. This process of consideration is referred to as appropriate assessment (AA). When putting forward a plan, the local authority is firstly charged with "screening" the proposal, i.e. determining, on the basis of a preliminary assessment and objective criteria, whether the proposed plan, both alone and in combination with other plans or projects; could have significant effects on a Natura 2000 site in view of the site's conservation objectives. If the Screening stage concludes that the proposed project could give rise to likely significant impacts on any Natura 2000 site, then subsequent stages of the AA process are required, including the delivery of a Natura Impact Statement. However if no likely significant effects are identified during Screening, then the assessment process goes no further.

This report is a documentary record of the Appropriate Assessment Screening undertaken by Dublin City Council, to assess the impacts of the proposed Draft Local Area Plan for Ballymun, on local Natura 2000 / European sites.

A separate Strategic Environmental Assessment (SEA) has been undertaken in tandem to assess the impacts of the Draft Local Area Plan on a number of environmental considerations including population, human health, biodiversity, flora, fauna, soil waters, air, climatic factors, cultural heritage, landscape, and interrelationship between these considerations, where applicable.

2 Legislative Context

The Appropriate Assessment process (AA) is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site. These sites consist of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats.

The Habitats Directive provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. In Ireland, these are candidate Special Areas of Conservation (cSACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC), hereafter referred to as European Sites.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European Sites. Article 6(3) establishes the requirement for AA. Article 6(3) of the Habitats Directive states: -

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

Article 6(4) states: -

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

These Articles mean that where the implementation of the plan has potential to have a significant effect on a Natura 2000 site, the relevant Local Authority (Dublin City Council) must ensure that an appropriate assessment is carried out in view of that site's conservation objectives. The plan can be approved by Dublin City Council only if it has been ascertained that it will not adversely affect the integrity of the Natura 2000 site(s) concerned, or in the case of a negative assessment and where there are no alternative solutions, the scheme can only be approved for reasons of overriding public interest.

The requirement for Appropriate Assessment is integrated into Irish Planning law through the **Planning and Development (Amendment) Act 2000, Part XAB**. This Act requires the competent authority, in this case Dublin City Council, to avoid in a European site the deterioration of natural habitats and the habitats of species as well as the disturbance of the species for which the site has been designated (Section 177S).

Section 177U (1) of the Act has the following requirement: -

- (1) A screening for appropriate assessment of a draft Land use plan... shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that land use plan.,, individually or in combination with another plan or project is likely to have a significant effect on the European site.

- a. competent authority shall carry out a screening for appropriate assessment under subsection (1) before – (a) A Land use plan is made...

This report is a documentary record of the screening process carried out under Section 177U of the Act.

3 Guidance Documentation

As part of the Appropriate Assessment process for the LAP, particular reference has been made to the following documents: -

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. National Parks and Wildlife Service, Department of the Environment, Community and Local Government (2010 revision) (now the Department of Housing, Planning, Community and Local Government)
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission, (2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC, European Commission (EC Environment Directorate-General, 2000 updated draft April 2015); hereafter referred to as MN2000.
- Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007).
- Guidelines for Good Practice Appropriate Assessment of Plan Under Article 6(3) Habitats Directive (international workshop on Assessment of Plans under the Habitats Directive, 2011)
- Flora (Protection) Order, 1999 (as amended 2016)

Sources of information that were used to collect data are listed below: -

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth
- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie
- Natura 2000 standard Data forms
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2013)
- Information on the conservation status of birds in Ireland (Colhoun & Cummins, 2013)

- Publicly accessible biodiversity datasets

4 Stages of appropriate assessment

Both Article 6(3) and 6(4) of the Habitats Directive, involve a number of steps and tests that need to be applied in sequential order when carrying out appropriate assessment. The results of each step must be documented and recorded carefully so there is full traceability and transparency of the decisions made. The first test is to establish whether, in relation to a particular plan or project, appropriate assessment is required. This is termed Appropriate Assessment screening.

The European Commission Methodological Guidance document (2001) promotes a four stage process to complete the Appropriate Assessment. An important aspect of the process is that the outcome of each successive stage determines whether a further stage in the process is required. The four stages are as follows: -

Stage 1: Screening for Appropriate Assessment: The process which identifies the likely impacts upon a European Site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant

Stage 2: Appropriate Assessment: The consideration of the impact on the integrity of the European Site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. If adequate mitigation is proposed to ensure no significant adverse impacts on European Sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage 3. The report of this stage is known as a Natura Impact Statement (NIS).

Stage 3: Assessment of Alternative Solutions: The process which examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European Site.

Stage 4: IROPI (imperative reasons for overriding public interest): An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.



5 Methodology

As noted above, the European Commission Methodological Guidance document (2001) promotes a 4-stage process to complete the Appropriate Assessment: -

Stage 1: Screening for Appropriate Assessment

Stage 2: Appropriate Assessment

Stage 3: Assessment of Alternative Solutions

Stage 4: IROPI (imperative reasons for overriding public interest)

This report deals with Stage 1 only, i.e. screening for appropriate assessment.

The methodology followed in screening this project is that put forward by the Department of the Environment, Community and Local Government (now the Department of Housing, Planning, Community and Local Government) in the 2009 publication, '*Appropriate Assessment for Plans and projects in Ireland: Guidance for Planning Authorities*'. It sets out four key steps: -

Step I: Description of plan or project, and local site or plan area characteristics

Step II: Identification of relevant Natura 2000 sites and compilation of information on their qualifying interests and conservation objectives

Step III: Assessment of likely effects – direct, indirect and cumulative – undertaken on the basis of available information as a desk study or field survey or primary research as necessary

Step IV: Screening statement with conclusions

Regard is also had to the guidance document '*Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*' (European Commission, 2001). This methodology for the AA process included one additional step in the screening process, to – *Determine whether the project or plan is directly connected with or necessary to the management of a Natura 2000 site.*

Such plans or projects that are directly connected with or necessary to the nature conservation management of a Natura 2000 site are essentially exempt from further consideration. The proposed Draft Ballymun Local Area Plan is however not directly connected with or necessary to the management of any Natura 2000 site.

Circular NPW/ 1/10 from the Department of the Environment notes the need to apply the precautionary principle in making any key decisions in relation to the tests of AA, as confirmed by the European Court of Justice case law. Therefore where significant effects are likely, possible or uncertain at screening stage, AA will be required.

6 Appropriate Assessment Screening Record

6.1 Step 1: Description of Plan and Plan Area Characteristics

6.1.1 Plan Hierarchy

The Draft Ballymun Local Area Plan sits within a hierarchy of land use plans and is intended to provide a localised and focused planning framework for the sustainable regeneration and development of the Ballymun area, within the context of the Dublin City Development Plan 2016-2022, the Regional Planning Guidelines for the Greater Dublin Area 2010 – 2022 and the National Spatial Strategy 2002 – 2020. All of these higher level plans support urban regeneration and the consolidation of Dublin City.

6.1.2 Plan Area Characteristics

Ballymun is an established residential suburb located 6.5km north of Dublin City Centre and 7.3km south of Dublin Airport, just south of Junction 4 on the M50. The proposed plan area covers an area of approximately 270 hectares.

Ballymun has been the subject of a comprehensive regeneration programme since 1997, undertaken within the context of 1998 ‘Masterplan for the new Ballymun’. All of the 36 no. high-rise residential blocks have been demolished; a new Main Street has been laid out with new civic, arts, and community facilities provided along its length; new residential units have been provided, and new streets, parks and sporting and community facilities have all been provided.

With all residents from the previous Ballymun ‘flat blocks’ re-housed in new purpose built accommodation, there remains c. 33.44 hectares of undeveloped land available for mixed use commercial and residential development within the Ballymun LAP area. It is estimated that this land can deliver approx. 2,000 new residential units. This land was largely previously occupied by the flat blocks and is serviced and is largely under the ownership of Dublin City Council.

6.1.3 Designation and Guidance within City Development Plan

Ballymun is a designated Key District Centre (KDC), and a Strategic Development and Regeneration Area (SDRA) within the current Development Plan (2016-2022).

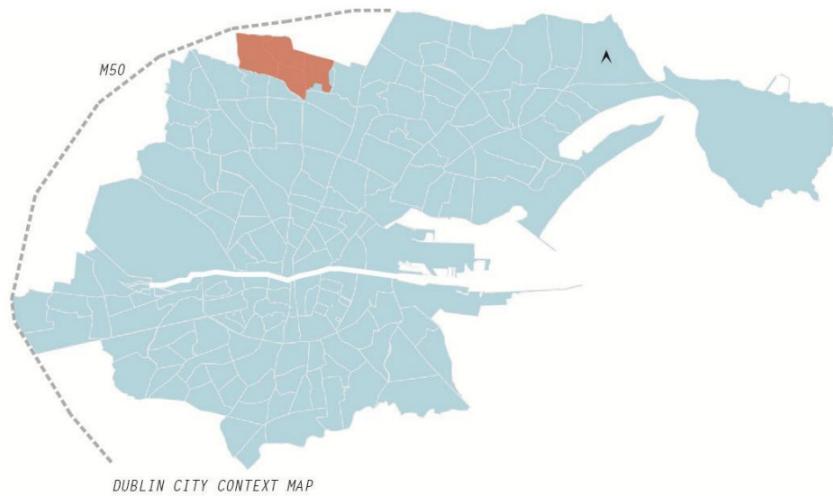


Fig 1: Dublin City Context Map

Chapter 15 of the Dublin City Development Plan 2016-2022 sets out the following guiding principles for Ballymun: -

- To maximise the employment and economic potential of Ballymun along its Main Street in accordance with its strategic location and its designation as a key district Centre (KDC).
- To promote the delivery of a high-quality public transport system linking the airport and the city, via Ballymun.
- To enhance existing and establish new and appropriate land-uses that support a growing mixed-use community, and seek innovative planning responses for the key sites in the area, that respond to the environmental, social, cultural and economic issues and demands facing the area.
- To improve permeability both within Ballymun and to the surrounding areas.
- To provide a choice of tenure options and house types, promoting social inclusion and integration.
- To promote and enhance Ballymun and the wider area's reputation as a sustainable urban environment.
- To promote Ballymun as a leading arts and cultural hub serving the city and wider region.
- To provide an appropriate urban main street context with buildings of 4-6 storeys in height along the main street, with potential for limited increases in the vicinity of a public rail station. Key gateway landmark buildings already exist framing the 1km long main street.



Fig 2: Aerial Photo Ballymun

Chapter 4 of the Draft Local Area Plan sets out the overall vision and key objectives for the LAP. The vision for Ballymun, as lobbied for by the people of Ballymun over the years, as articulated through the Masterplan, and as now translated into this Local Area Plan, is:

"to create a successful and sustainable new town; which provides for and supports a thriving local economy, which caters for people across all spectrums of their lifecycle in both their house type and tenure and where communities are supported by the appropriate social, sporting and cultural amenities".

To achieve this vision, it is an objective of the Ballymun Local Area Plan to deliver and develop the remaining vacant sites in Ballymun; to provide new residential homes within the neighbourhoods and new mixed-use development along the Main Street. Densities should be appropriate to each site location with higher densities sought along the Main Street and in particular in the vicinity of future anticipated Metro stations. New designs should follow principles of good urban design, deliver quality materials and contribute positively to their environment.

To deliver the vision a number of key principles have been set out in the Plan, which are set out below:-

Vacant Sites

KP1: To develop the remaining vacant sites in a sustainable manner.

Housing & Tenure

KP2: To develop the remaining residential sites for a mix of house types and tenures to increase the population and support the existing services and businesses in the area.

Economic Development & Employment

KP3: To attract economic activity and stimulate new employment generating uses within the three key areas of employment; (i) M50 lands, (ii) Main Street and (iii) Industrial Estates, alongside the local level provision operating within the neighbourhood centres.

Urban Form & Design

KP4: To create distinctive urban places through the use of intelligent urban design and good quality materials having regard to the existing palette of materials and finishes in the area.

Movement

KP5: To complete outstanding infrastructure to enhance connectivity both within Ballymun and to the surrounding area, and to service the remaining development sites.

Social & Community Infrastructure & Supports

KP6: To consolidate existing social and community facilities to maximise their use by the whole community.

KP7: To support the local community through the implementation of the Social Regeneration Plan and maintain the level of funding.

Sports, Recreation & Open Space

KP8: To consolidate existing sports and recreation facilities and open space areas to maximise their use by the whole community.

Green Infrastructure & Biodiversity

KP9: To provide and maintain landscaped parks, greens and tree lined streets respecting the established public realm principles.

Drainage & Water

KP10: To continue to implement the Surface Water Masterplan for Ballymun facilitating development of the vacant sites.

6.1.4 Overview of Receiving Environment

The Santry River runs to the north of the LAP lands and the River Tolka to the south of the LAP lands.

The Wad River runs through part of the LAP lands and is culverted for its entire route. The Wad River drains a catchment of approximately 483 hectares including parts of Ballymun, Santry, Donncarney and Killester to the seafront at Clontarf in North County Dublin. The Wad River, originally in open channel has been completely replaced with culverts and pipelines of varying dimensions over the 6km route from Albert College Park on Ballymun Road to the seafront at Clontarf Road. There have been a number of historical flooding events reports within the catchment area of the Wad River.

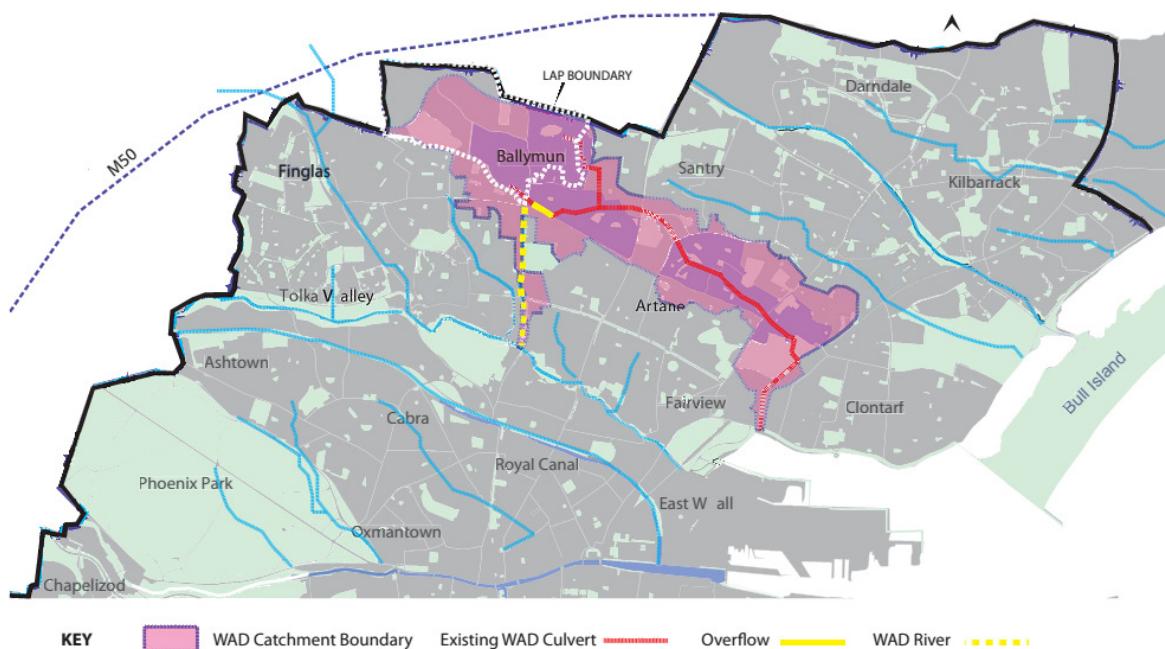


Fig 3: River Wad Catchment

Surface Water

Significant investment in surface water (SW) infrastructure was carried out in this area under the Ballymun Masterplan. A Masterplan for Surface Water (SWMP) was drawn up for the entire area and implemented over several years in tandem with the regeneration projects. The SWMP treated the entire area as a single catchment and produced an overall design that incorporated both hard and soft engineering solutions. The hard solutions included the construction of new pipe networks throughout Ballymun, and the soft solutions compromised landscaped ponds that acted as storage reservoirs and infiltration drains at the rear of houses. Surface Water attenuation is provided for by means of a throttle at the downstream end of the network, which allows only a limited flow to be discharged out of the Ballymun area with flows above this level being directed to the pond in Poppintree Park (i.e. this pond has an engineering and landscape function). This pond can then rise in level and spill into different cells to cater for increases in rainfall. All surface water from this catchment discharges to the Wad River and onto the Tolka River. As these rivers have a history of flooding, the work carried out in Ballymun of restricting the outflow, has assisted in mitigating flood risk in downstream areas.

Water Supply & Wastewater Treatment

From the 1st of January 2014, Irish Water became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal of wastewater. Irish Water will make capital and investment decisions regarding the country's water infrastructure on a national basis. Dublin City Council will work closely and support Irish Water to provide and maintain an adequate public water supply and wastewater infrastructural network throughout the city.

Existing and future populations within the Plan area should continue to have access to adequate high quality clean drinking water. The existing water network is generally adequate for current demand and small infill growth; however more detailed investigations would have to be carried out on the capacity of the network for any proposal which would generate significant water usage. Network improvements required to address any deficiency identified by these investigations shall be addressed by Irish Water.

It is an objective of Dublin City Council to ensure the implementation of the surface water legislation Environmental Objectives (Surface Waters) Regulations 2009 S.I. No 272 of 2009 and the EPA report Water Quality in Ireland 2007-2009 in order to ensure that development permitted would not have an unacceptable impact on water quality including surface waters, ground water, river corridors, estuarine waters, bathing waters, coastal and transitional waters.

Wastewater Facilities

Ballymun is served by the Ringsend Waste Water Treatment Plant. The expansion and upgrading of the Ringsend Wastewater Treatment Plant is an urgent priority for Irish Water. It is intended to upgrade, expand the treatment works to a capacity of c. 2.1 million PE from 1.64 million PE.

The existing foul & surface water drainage network is generally adequate to satisfy current demand and small infill growth. More detailed investigations would, however, have to be carried out on the capacity of the network for any proposal which would have a significant impact on the drainage network. Any network improvements required to address deficiencies identified by these investigations shall be addressed by Irish Water. It is an objective of the Council to facilitate Irish Water in ensuring that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance.

Flooding

As part of the preparation of the Local Area Plan for Ballymun a Strategic Flood Risk Assessment has been prepared in tandem with the preparation of the Local Area Plan, see separate document.

6.2 Step II: Identification and Description of Relevant Natura 2000 sites

This section of the screening process describes the European Sites which exist within the Zone of Influence (ZOI) of the site. The DoEHLG (2009) Guidance on Appropriate Assessment recommends a 15km buffer zone is considered around the site. It is not foreseen that in the absence of significant hydrological links the characteristics of this plan (detailed above) will impose impacts beyond this Zone of Influence.

6.2.1 Zone of Influence of the Proposed Development

There are no Natura 2000 Sites within the boundary of the LAP but there are Natura 2000 sites, within its zone of influence. There are twenty one Natura 2000 sites as identified in Figure 4 within the zone of influence.

The Zone of Influence (ZOI) is the ‘effect area’ over which changes could give rise to potentially significant impacts. The ZOI over which significant impacts may occur differs for sensitive ecological receptors depending on the pathway for potential impacts, as well as the specific nature of different habitats / species (e.g. their ability to move, disperse or absorb impacts). In accordance with guidance from the Department of Environment, Community and Local Government (2009, as amended in 2010) and the Issues Paper submission from the Dept. of Arts, Heritage and the Gaeltacht, a distance of 15km is recommended as a starting point for identifying potential impacts. It was found that this 15km distance was more than adequate for capturing all potentially significant impacts within the ZOI of the Plan area.

A desktop review was carried out to identify the location and conservation objectives of all Natural 2000 sites within a 15km radius of the LAP boundary. The sites were determined from the information obtained from the National Parks and Wildlife Service (www.npws.ie).

Of the twenty-one Natura 2000 sites within the zone of Influence of the Ballymun LAP, twelve are Special Areas of Conservation (SACs) and nine are Special Protection Areas (SPAs), listed as follows; there are no Proposed Natural Heritage Areas (pNHAs) located within the LAP area: -

Special Areas of Conservation (SAC):

1. Rogerstown SAC
2. Lombay Island SAC
3. Malahide Estuary SAC
4. Baldoyle Bay SAC
5. Ireland's Eye SAC
6. North Dublin Bay SAC
7. Howth Head SAC
8. South Dublin Bay SAC
9. Glenasmole Valley cSAC
10. Wicklow Mountains cSAC
11. Rockabill to Dalkey Islands cSAC
12. Rye Water Valley / Carton cSAC

Special Protection Areas (SPA): -

1. Rogerstown SPA
2. Lombay Island SPA
3. Malahide Estuary SPA

4. Bald Doyle Bay SPA
5. Ireland's Eye SPA
6. Howth Head Coast SPA
7. North Bull Island SPA
8. South Dublin Bay and River Tolka Estuary SPA
9. Dalkey Islands SPA

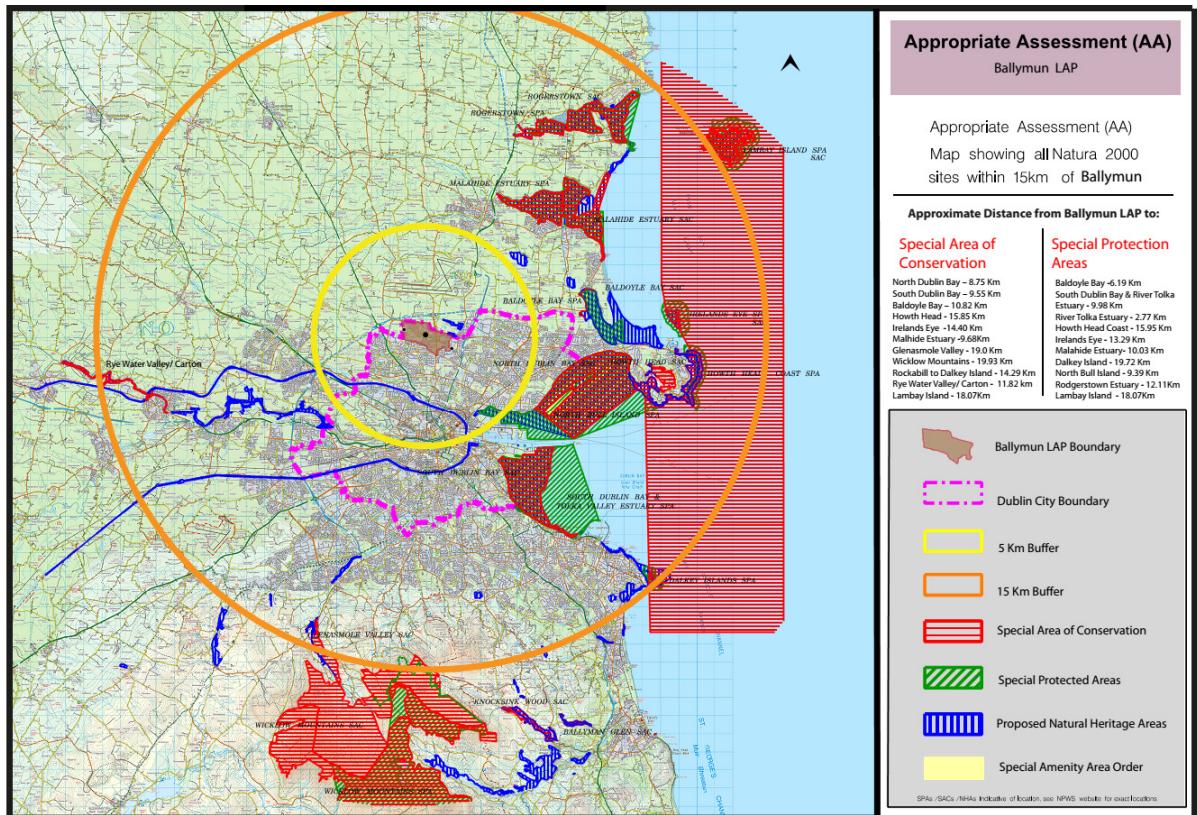


Fig 4: Natura 2000 sites within a 15km of the Proposed LAP boundary

The screening process undertaken involved identifying the proximity of the LAP to each of the Natura 2000 sites within the 'Zone of Influence' and identifying potential source-pathway-receptor linkages between them. This process is summarised in Table 1 below.

Table 1: Natura 2000 sites, their Qualifying Interests, and Potential Connections with the LAP, within a 15km radius of the Draft Plan.

Site Code	Site Name & Distance from LAP(approx)	Qualifying Interests of Natura 2000 Sites: (Obtained from www.npws.ie) * = priority	Connectivity to LAP (in the form of water courses, drainage channels or other vectors) Likely Impacts
Special Areas of Conservation (SACs)			
IE0 000199	Baldoyle Bay SAC 10.82 km North East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Mudflats and sandflats not covered by seawater at low tide ▪ Salicornia and other annuals colonizing mud and sand ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) <p>Note: This SAC overlaps with Baldoyle Bay SPA (004016)</p>	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area.</p> <p>Dublin Bay is hydrologically connected to the Baldoyle Bay SAC.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Baldoyle SAC.</p>
IE0 000202	Howth Head SAC 15.85 km East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Vegetated sea cliffs of the Atlantic and Baltic coasts ▪ European dry heaths 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Howth Head SAC.</p> <p>However it is considered that the separation distances prevents the</p>

			LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Howth Head SAC.
IE0 000205	Malahide Estuary SAC 9.68 km North East of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Mudflats and sandflats not covered by seawater at low tide ▪ Salicornia and other annuals colonizing mud and sand ▪ Spartina swards (<i>Spartinion maritimae</i>) ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ▪ Shifting dunes along the shoreline with Ammophila arenaria (white dunes) ▪ Fixed coastal dunes with herbaceous vegetation (grey dunes)* 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Malahide Estuary SAC.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Malahide Estuary SAC.</p>
IE0 000206	North Dublin Bay SAC 8.75 km South East of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Mudflats and sandflats not covered by seawater at low tide ▪ Annual vegetation of drift lines ▪ Salicornia and other annuals colonizing mud and sand ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ▪ Embryonic shifting dunes ▪ Shifting dunes along the shoreline with Ammophila arenaria (white dunes) ▪ Fixed coastal dunes with herbaceous vegetation (grey dunes)* 	<p>Potential for impact</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the North Dublin SAC.</p> <p>Potential for impacts via surface water runoff and waste treatment.</p>

		<ul style="list-style-type: none"> ▪ Humid dune slacks ▪ <i>Petalophyllum ralfsii</i> (<i>Petalwort</i>) 	
IE0 000210	South Dublin Bay SAC 9.55 km South East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Mudflats and sandflats not covered by seawater at low tide 	<p>Potential for impact</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the South Dublin Bay SAC.</p> <p>Potential for impacts via surface water runoff and waste treatment</p>
IE0 001209	Glenasmole Valley SAC 19.0 km South of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)(important orchid sites)* ▪ Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) ▪ Petrifying springs with tufa formation (<i>Cratoneurion</i>)* 	<p>Not connected</p> <p>Glenasmole Valley is located in south Co. Dublin on the edge of the Wicklow uplands. The River Dodder flows through the valley. The separation distance and the lack of any connectivity between the LAP lands and the Glenasmole Valley SAC prevent any likely significant impacts from occurring.</p>
IE0 002193	Ireland's Eye SAC 14.4 km North East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Perennial vegetation of stony banks ▪ Vegetated sea cliffs of the Atlantic and Baltic coasts 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Ireland's Eye SAC.</p>

			However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Ireland's Eye SAC.
IE0 002122	Wicklow Mountains SAC 19.93 km South of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> ▪ Natural dystrophic lakes and ponds ▪ Northern Atlantic wet heaths with <i>Erica tetralix</i> ▪ European dry heaths ▪ Alpine and Boreal heaths ▪ Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) ▪ Blanket bogs (if active only)* ▪ Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) ▪ Calcareous rocky slopes with chasmophytic vegetation ▪ Siliceous rocky slopes with chasmophytic vegetation ▪ Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles ▪ <i>Lutra lutra</i> (<i>Otter</i>) 	Not connected Wicklow Mountains SAC is a complex of upland areas in Counties Wicklow and Dublin. The separation distance and the lack of any connectivity between the LAP lands and the Wicklow Mountains SAC prevent any likely significant impacts from occurring.
IE0 03000	Rockabill to Dalkey Island cSAC 14.29 km East of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Reefs ▪ Harbour porpoise (<i>Phocoena phocoena</i>) 	Potential for impact The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;

			<p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Rockabill to Dalkey Island SAC.</p> <p>Potential for impacts via surface water runoff and waste treatment.</p>
IE0 01398	Rye Water Valley/Carton SAC 11.82 Km West of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Petrifying springs with tufa formation (<i>Cratoneurion</i>)* ▪ Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>) ▪ Desmoulin's Whorl Snail (<i>Vertigo mouliniana</i>) 	<p>No Impact Likely</p> <p>The Rye Water Valley/Carton SAC is located between Leixlip and Maynooth in Counties Meath and Kildare, and extends along the Rye Water, a tributary of the River Liffey.</p> <p>The separation distance and the lack of any connectivity between the LAP lands and the Wicklow Mountains SAC prevent any likely significant impacts from occurring.</p>
IEO 000204	Lambay Island SAC 18.07Km North East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Reefs ▪ Vegetated sea cliffs of the Atlantic and Baltic coasts ▪ Grey Seal (<i>Halichoerus grypus</i>) ▪ Common Seal (<i>Phoca vitulina</i>) 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to Lambay Island SAC.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Lambay Island SAC.</p>
IEO 000208	Rogerstown Estuary 12.11 Km North East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Estuaries ▪ Mudflats and sandflats not 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this</p>

		<p>covered by seawater at low tide</p> <ul style="list-style-type: none"> ▪ Salicornia and other annuals colonising mud and sand ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ▪ Shifting dunes along the shoreline with white dunes (<i>Ammophila arenaria</i>) ▪ Fixed coastal dunes with herbaceous vegetation (grey dunes) 	<p>flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to Rogerstown Estuary SAC.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Rogerstown Estuary SAC.</p>
Special Protections Areas (SPAs)			
IE0 04006	North Bull Island SPA 9.39 km South East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) ▪ Shelduck (<i>Tadorna tadorna</i>) ▪ Teal (<i>Anas crecca</i>) ▪ Pintail (<i>Anas acuta</i>) ▪ Shoveler (<i>Anas clypeata</i>) ▪ Oystercatcher (<i>Haematopus ostralegus</i>) ▪ Golden Plover (<i>Pluvialis apricaria</i>) ▪ Grey Plover (<i>Pluvialis squatarola</i>) ▪ Knot (<i>Calidris canutus</i>) ▪ Sanderling (<i>Calidris alba</i>) ▪ Dunlin (<i>Calidris alpina</i>) ▪ Black-tailed Godwit (<i>Limosa limosa</i>) ▪ Bar-tailed Godwit (<i>Limosa lapponica</i>) ▪ Curlew (<i>Numenius arquata</i>) ▪ Redshank (<i>Tringa totanus</i>) 	<p>Potential for impact</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the North Dublin Island SPA.</p> <p>Potential for impacts arising from contaminated surface water runoff and waste treatment.</p>

		<ul style="list-style-type: none"> ▪ Turnstone (<i>Arenaria interpres</i>) ▪ Black-headed Gull (<i>Larus ridibundus</i>) ▪ Wetlands & Waterbirds 	
IE0 04016	Baldoyle Bay SPA 6.19 km North East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) ▪ Shelduck (<i>Tadorna tadorna</i>) ▪ Ringed Plover (<i>Charadrius hiaticula</i>) ▪ Golden Plover (<i>Pluvialis apricaria</i>) ▪ Grey Plover (<i>Pluvialis squatarola</i>) ▪ Bar-tailed Godwit (<i>Limosa lapponica</i>) ▪ Wetland & Waterbirds 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Baldoyle Bay SPA.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Baldoyle SPA.</p>
IE0 04024	South Dublin Bay and River Tolka Estuary SPA 9.98 km South East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) ▪ Oystercatcher (<i>Haematopus ostralegus</i>) ▪ Ringed Plover (<i>Charadrius hiaticula</i>) ▪ Grey Plover (<i>Pluvialis squatarola</i>) ▪ Knot (<i>Calidris canutus</i>) ▪ Sanderling (<i>Calidris alba</i>) ▪ Dunlin (<i>Calidris alpina</i>) ▪ Bar-tailed Godwit (<i>Limosa lapponica</i>) ▪ Redshank (<i>Tringa totanus</i>) ▪ Black-headed Gull 	<p>Potential for impact</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the South Dublin Bay and River Tolka Estuary SPA.</p> <p>Potential for impacts via surface water runoff and waste treatment</p>

		<ul style="list-style-type: none"> (<i>Croicocephalus ridibundus</i>) ▪ Roseate Tern (<i>Sterna dougallii</i>) ▪ Common Tern (<i>Sterna hirundo</i>) ▪ Arctic Tern (<i>Sterna paradisaea</i>) ▪ Wetlands & Waterbirds 	
IE0 04025	Malahide Estuary SPA 10.03 km North East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Great Crested Grebe (<i>Podiceps cristatus</i>) ▪ Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) ▪ Shelduck (<i>Tadorna tadorna</i>) ▪ Pintail (<i>Anas acuta</i>) ▪ Goldeneye (<i>Bucephala clangula</i>) ▪ Red-breasted Merganser (<i>Mergus serrator</i>) ▪ Oystercatcher (<i>Haematopus ostralegus</i>) ▪ Golden Plover (<i>Pluvialis apricaria</i>) ▪ Grey Plover (<i>Pluvialis squatarola</i>) ▪ Knot (<i>Calidris canutus</i>) ▪ Dunlin (<i>Calidris alpina</i>) ▪ Black-tailed Godwit (<i>Limosa limosa</i>) ▪ Bar-tailed Godwit (<i>Limosa lapponica</i>) ▪ Redshank (<i>Tringa tetanus</i>) ▪ Wetland and Waterbirds 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Malahide Estuary SPA.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Malahide Estuary SPA.</p>
IE0 04113	Howth Head Coast SPA 15.95 km East of LAP	<p>Habitats and/or species:</p> <ul style="list-style-type: none"> ▪ Kittiwake (<i>Rissa tridactyla</i>) 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p>

			<p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Howth Head Coast SPA.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Howth Head Coast SPA.</p>
IE0 04117	Irelands Eye SPA 13.29Km North East of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Cormorant (<i>Phalacrocorax carbo</i>) ▪ Herring Gull (<i>Larus argentatus</i>) ▪ Kittiwake (<i>Rissa tridactyla</i>) ▪ Guillemot (<i>Uria aalge</i>) ▪ Razorbill (<i>Alca torda</i>) 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Ireland's Eye SPA.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Ireland's Eye SPA.</p>
IE0 04172	Dalkey Islands SPA 19.72 km South East of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Roseate Tern (<i>Sterna dougallii</i>) ▪ Common Tern (<i>Sterna hirundo</i>) ▪ Arctic Tern (<i>Sterna paradisaea</i>) 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Dalkey Islands SPA.</p> <p>However it is considered that the separation distances prevents the</p>

			LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Dalkey Islands SPA.
IEO 004015	Rogerstown Estuary SPA 12.11Km North East of LAP	Habitats and/or species: <ul style="list-style-type: none"> ▪ Greylag Goose (<i>Anser anser</i>) ▪ Brent Goose (<i>Branta bernicla hrota</i>) ▪ Shelduck (<i>Tadorna tadorna</i>) ▪ Shoveler (<i>Anas clypeata</i>) ▪ Oystercatcher (<i>Haematopus ostralegus</i>) ▪ Ringed Plover (<i>Charadrius hiaticula</i>) ▪ Grey Plover (<i>Pluvialis squatarola</i>) ▪ Knot (<i>Calidris canutus</i>) ▪ Dunlin (<i>Calidris alpina</i>) ▪ Black-tailed Godwit (<i>Limosa limosa</i>) ▪ Redshank (<i>Tringa totanus</i>) ▪ Wetland and Waterbirds 	<p>No Impact Likely</p> <p>The LAP is hydrologically linked to (A) Dublin Bay via the Wad River. The Santry River is located to the north of the LAP boundary and this flows into Dublin Bay;</p> <p>(B) Effluent from the proposed plan area together with the Greater Dublin Area will be received by Ringsend WWTP and any excess outflow from the plant discharges into the Dublin Bay area. Dublin Bay is hydrologically connected to the Rogerstown Estuary SPA.</p> <p>However it is considered that the separation distances prevents the LAP scheme from having any significant adverse impact on the qualifying interests or conservation objectives of the Rogerstown Estuary SPA</p>

Blue: Sites with potential connections to the LAP lands.

Of the twenty-one sites outlined above located within the 15km zone of influence, it is considered that there is scope for potential impacts, arising from proximity and hydrological linkages, on five of the Natura 2000 sites, namely: -

- North Dublin Bay cSAC
- South Dublin Bay cSAC
- Rockabill to Dalkey Islands cSAC
- North Bull Island SPA
- South Dublin Bay and River Tolka Estuary SPA.

Further details on each of these five sites are provided in Appendix 1, including a description of each site and overall conservation objectives. (Information on sites is derived from the NPWS website, www.npws.ie/protected-sites).

The habitats of Dublin Bay comprise substantial areas of coastal estuarine and marine habitat. The National Parks and Wildlife Service has specific conservation objectives for marine habitats, which include objectives for estuarine mudflats and sandflats. The ecological communities of these areas are sensitive to the anthropogenic impacts of water pollution, sedimentation and nutrient enrichment. Due to the qualifying interests of the sites, it is considered that deterioration in the water quality status within the drainage catchment area could have potential adverse effects on the integrity of the listed Natura 2000 sites at Dublin Bay.

6.3 Step III: Assessment of Likely Effects – Direct, Indirect and Cumulative

This screening assessment process identifies whether the changes brought about by the Draft Local Area Plan are likely to cause any direct, indirect or secondary impacts (either alone or in combination with other plans or projects) on European Sites. During this assessment, a number of factors were taken into account including the sites' conservation objectives and known threats.

The overall aim of the assessment is to attempt to predict the consequences that can be reasonably foreseen by implementation of a policy or objective. It should be noted that the objectives that make up the Draft LAP are strategic in nature and therefore the impact assessment can at best be generalised. The overall aim of the Draft LAP is to set out a framework for the physical development of the Ballymun area so that growth may take place in a coordinated, sensitive and orderly manner, while at the same time being sensitive to the environment.

6.3.1 Potential Direct Impacts on Natura 2000 Sites

Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can also be as a result of a change in land use or management, i.e. removal of agricultural practices that prevent scrub encroachment. No Natura 2000 sites lie within the boundary of the Draft LAP lands, therefore no direct impacts will occur through land take or fragmentation of habitats. Increased development and construction of residential and commercial units will lead to increased demand for potable water and increased pressure on existing and future waste water treatment systems.

In terms of water supply for the Ballymun area there are no particular constraints in terms of supplying water to future development within the Draft LAP lands. Any medium to large scale development in the area may be required to upgrade sections of the existing network to ensure adequate security of supply as deemed necessary by Irish Water, which will not result in any direct or indirect impacts on the Natura 2000 sites.

Increased development will lead to more sewage, which will be treated at the Ringsend Waste Water Treatment Plant. It is an objective of the Council to facilitate Irish Water in ensuring that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance. Complying with the standards and requirements set out in EU and national legislation will ensure that sewage will be treated to an appropriate standard such that it will not impact on receiving waters, and therefore, will not result in any indirect impacts on the Natura 2000 sites.

6.3.2 Potential Indirect Impacts on Natura 2000 sites

Indirect impacts occur where the cause and effect relationships are potentially more challenging to establish and assess. Deterioration in water quality, for example, can occur as an indirect consequence of development through water discharge from development which, in turn, can change the aquatic environment and reduce its capacity to support certain plants and animals. The distances over which water-borne pollutants are likely to remain in sufficient concentrations to have a significant impact on receiving waters is difficult to quantify and highly site-specific. Evidently, it will depend on volumes of discharged waters, concentrations and types of pollutants, volumes of receiving waters, and sensitivity of receiving waters. The introduction of invasive species can also be defined as an indirect impact, which may result in the transfer of alien species from one area to another.

Potential indirect linkages have been identified for the Local Area Plan in the form of hydrological connections, between the LAP lands and Dublin Bay, which can occur via surface water connections and run off into the Wad River. Natura 2000 sites with potential for impact include those located in Dublin Bay, notably North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Islands SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA, all located downstream of the subject site, where the River Liffey enters the Irish Sea. There is potential for indirect impacts, through the transfer of pollutants via overland flow into the surface water connections and continuing downstream into Dublin Bay. There is also potential for impacts from the treatment of wastewater for the area which is transferred to the City's wastewater treatment plant at Ringsend, where any excess outflow is discharged into the Dublin Bay area.

The potential linkages and impacts of the LAP have therefore being assessed under the headings of: -

A: Waste Water Treatment

B: Surface Water Linkages

A: Waste Water Treatment

The design capacity and operational efficiency of the sewage infrastructure and the capacity of the municipal wastewater treatment facility at Ringsend on the Poolbeg peninsula is a primary determinant of the water quality in Dublin Bay. In this regard treated effluent from Ringsend wastewater treatment is discharged to the Liffey Estuary east of the Poolbeg generating station. The potential implications of an increased operational load arising from the key sites within Ballymun, has therefore been assessed with reference to the potential adverse effects on the Natura 2000 sites at Dublin Bay.

The entire lands within the Ballymun LAP ultimately discharge to the Regional Wastewater Treatment Plant at Ringsend; a plant which is currently overloaded. The existing treatment works at this plant have a capacity of 1.65 million population equivalent (PE) but it is currently receiving and treating a daily load of approximately 1.75 million PE. To increase the treatment works capacity to accommodate current loads and to allow for future growth of the Dublin region it is necessary to increase the capacity to at least 2.1 million PE. In addition to an increase in capacity, the treatment works must also be upgraded to treat effluent to a higher standard than the original design.

The development of the remaining residential and mixed use sites in Ballymun has the potential to provide a significant increase in residential population. The remaining sites (including the mixed town centre/Main Street) have the potential to deliver c. 2,000 no. units in addition to increases in commercial floor space. This will place an added pressure on the existing Wastewater Treatment Plant.

Irish Water has inherited the Capital Investment Plan for Ringsend from Dublin City Council, from 1st January 2014, and is committed to developing the plant at Ringsend as an urgent national priority.

In 2012 An Bord Pleanála approved permission for the upgrade and expansion of works at the Ringsend wastewater treatment plant in order to maximise its capacity. In January 2014, Irish Water assumed responsibility for the provision of public water services, which included the transfer of responsibility for the Ringsend Wastewater Treatment Plant from Dublin City Council. Since taking on this responsibility, Irish Water have carried out a series of reviews including a revision to the approved project which involves the use of the Aerobic Granular Sludge (AGS) technology treatment process and the exclusion of the originally planned 9km undersea tunnel. Their studies show that this treatment process will consistently produce high-quality treated wastewater which can be safely discharged into Dublin Bay. Any deviation from that original approved process will be subject to a separate planning application to An Bord Pleanála. Irish Water has stated their intention to apply to An Bord Pleanála in early 2018 for permission to implement the revised project along with other key waste infrastructure in the Dublin Region.

B: Surface Water Linkages

The Ballymun LAP area is predominantly “brown field”. All surface water from this catchment discharges to the Wad River and onto the Tolka River. As these rivers have a history of flooding, the work carried out in Ballymun of restricting the outflow, has assisted in mitigating flood risk in downstream areas.

Significant investment in surface water (SW) infrastructure was carried out in this area under the Ballymun Masterplan. A Masterplan for Surface Water (SWMP) was drawn up for the entire area and implemented over several years in tandem with the regeneration projects. The SWMP treated the entire area as a single catchment and produced an overall design that incorporated both hard and soft engineering solutions. The hard solutions included the construction of new pipe networks throughout the Ballymun, and the soft solutions comprised landscaped ponds that acted as storage reservoirs and infiltration drains at the rear of houses. Surface Water attenuation is provided for by means of a throttle at the downstream end of the network, which allows only a limited flow to be discharged out of the Ballymun area with flows above this level being directed to the pond in Poppintree Park (i.e. this pond has an engineering and landscape function). This pond can then rise in level and spill into different cells to cater for increases in rainfall.

Under the Eastern River Basement Management Plan approved by Dublin City Council in 2010, all waters are to achieve good status. This places statutory requirements on Dublin City Council to improve the status of the rivers within the city.

As part of the implementation of the LAP, Dublin City Council will seek to remove the storm runoff from the combined system. In some cases, this will require new surface water pipes to be constructed. Any development in this area will be expected to manage surface water in accordance with modern sustainable principles that minimises peak flows and improves the quality of water being discharged into the system, for example through the use of green roofs or rainwater harvesting.

The LAP requires each site within the LAP lands to demonstrate to the satisfaction of Dublin City Council, that water quality improvement measures are adequately provided. Design of surface water attenuation shall be based on the requirements of the Greater Dublin Strategic Drainage Study (GDSDS).

The LAP proposes that the following SuDS measures shall, where feasible be incorporated into new developments to reduce peak run-off, improve biodiversity and improve the quality of run-off: -

- Green roofs and raised courtyards
- Attenuation ponds, swales, wetlands and detention basins (in larger schemes)
- Permeable paving
- Infiltration planters
- Water butts

Construction Related Activities

Construction activities in developing sites within the LAP have the potential to cause contamination of surface water arising from materials used on the site as construction compounds will be exposed to rainfall and subsequently will produce runoff. This runoff has the potential to be mildly contaminated by silt, hydrocarbons, faecal coliforms and cement arising from activities on site, giving potential for contaminated runoff entering adjacent watercourses which discharge to Dublin Bay.

It is considered that these potential constructions related impacts can be easily mitigated through the application of standard best practice and mitigation measures.

Conclusion

In conclusion the infrastructural measures for surface water management during the construction and operational phases shall be designed to ensure that indirect or secondary potential significant adverse effects on the Natura 2000 sites are avoided. New schemes will be required to ensure substantial water quality and quantity control, including SUDS features, are in line with best practice guidance to meet legislative standards prior to discharge. In addition, individual projects arising from the LAP will also be required to submit individual Appropriate Assessment Screening. Therefore no likely significant indirect or secondary effects are predicted on the Natura 2000 sites.

6.3.3 Potential cumulative effects of the LAP and Proposed Developments on Natura 2000 sites

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combinations with the plan or project, have the potential to adversely impact upon European Sites.

This step aims to identify at this early stage any possible significant in-combination or cumulative effects/impacts of the proposed Draft LAP with other such Plans and projects on the five Natura 2000 sites. Other Plans and projects specific to the relevant Natura 2000 site are the following:-

- Dublin City Development Plan 2016-2022
- Fingal County Development Plan 2017-2023
- Greater Dublin Area Regional Planning Guidelines 2010-2022
- National Spatial Strategy

- Eastern RBD Management Plan
- IPPC Programme
- Groundwater Pollution Reduction Programmes
- Surface Water Pollution Reduction Programmes
- Catchment Flood Risk Assessment and Management Study
- Catchment Flood Risk Management Plans

No other pathway has been identified by which any of the plans and programmes identified could have a significant ‘in combination’ effect on any of the Natura 2000 sites identified. In fact, the in combination effect of the above water related plans and programmes would have positive effects on water quality resulting in positive indirect impacts on the coastal SACs and SPAs.

6.3.4 Conclusion of Likely Significant Effects

The likely changes that could arise from the implementation of the Draft Ballymun LAP have been examined in the context of a number of factors that could potentially affect the integrity of the identified Natura 2000 site. It has been determined that no Natura 2000 site will be potentially impacted as a result of the Draft Ballymun LAP.

The Appropriate Assessment Screening Report has considered the following factors in respect of the likely significant effects on Natura 2000 sites at Dublin Bay that could result from the LAP:-

- (1) The proposed Ballymun LAP will have no direct effects on the Natura 2000 sites or cause disturbance to wild birds due to the distance of the proposed development from the Dublin Bay Natura 2000 sites.
- (2) The site infrastructural measures for surface water management during the construction and operational phases are designed to ensure that indirect or secondary potential significant adverse effects on the Natura 2000 sites are avoided. Policies and objectives are contained within the Draft LAP and within the City Development Plan to ensure that new developments incorporate substantial water quality and quantity control, including SUDS features, in line with best practice guidance to meet legislative standards prior to discharge. Therefore no likely significant indirect or secondary effects are predicted on the Natura 2000 sites.
- (3) The design of the municipal wastewater treatment facility at Ringsend has been identified as currently operating at or near capacity for the treatment of trade effluents from both industry and other non-domestic users. Potential cumulative impacts have been identified, due to deficiencies in the municipal wastewater treatment plant at Ringsend. These issues are currently being addressed by Irish Water through a series of enhancement works which will meet future needs of its catchment population.

Dublin City Council as Planning Authority has the responsibility to ensure that the lands at Ballymun will be developed in accordance with the provisions of the pertinent Dublin City Development Plan with specific reference to the provision of infrastructural facilities to service the subject lands.

6.4 Step IV: Screening Statement with Conclusions

Having assessed the LAP in terms of direct, indirect and cumulative impacts, it can be objectively concluded that there will be no significant effects on any Natura 2000 sites.

The AA screening process has identified that there is **no potential for significant impacts** on Natura 2000 sites in the zone of influence of the proposed development. Accordingly, it is not considered that a Stage 2 Appropriate Assessment is required for this local authority development.

The LAP and any developments arising within will be consistent with the Dublin City Development Plan in operation, which is also subject to Strategic Environmental Assessment and Appropriate Assessment during its preparation and adoption.

7 Finding of No Significant Effects Report Matrix

Table 2: Finding of No Significant Effects Matrix

Name of Project or Plan	Draft Ballymun Local Area Plan
Name and location of Natura 2000 sites	<p>Special Areas of Conservation (SAC): -</p> <ul style="list-style-type: none"> 1. Rogerstown SAC 2. Lombay Island SAC 3. Malahide Estuary SAC 4. Baldoyle Bay SAC 5. Ireland's Eye SAC 6. North Dublin Bay SAC 7. Howth Head SAC 8. South Dublin Bay SAC 9. Glenasmole Valley cSAC 10. Wicklow Mountains cSAC 11. Rockabill to Dalkey Islands cSAC 12. Rye Water Valley / Carton cSAC <p>Special Protection Areas (SPA): -</p> <ul style="list-style-type: none"> 1. Rogerstown SPA 2. Lombay Island SPA 3. Malahide Estuary SPA 4. Baldoyle Bay SPA 5. Ireland's Eye SPA 6. Howth Head Coast SPA 7. North Bull Island SPA 8. South Dublin Bay and River Tolka Estuary SPA 9. Dalkey Islands SPA
Description of the project or plan	The Draft Ballymun Local Area Plan sits within a hierarchy of land use plans and is intended to provide a localised and focused planning framework for the sustainable regeneration and development of the Ballymun area, within the context of the Dublin City

	<p>Development Plan 2016-2022, the Regional Planning Guidelines for the Greater Dublin Area 2010 – 2022 and the National Spatial Strategy 2002 – 2020. All of these higher level plans support urban regeneration and the consolidation of Dublin City.</p> <p>Ballymun is an established residential suburb comprising a mix of housing and vacant sites where the previous social housing flat blocks were located (since demolished). The commercial heart of the area is located along Main Street; encompassing a number of retail units on both sides of the street with the Ballymun shopping centre site on the western side and the Civic Centre multi-use public building and axis arts centre on the eastern side of Main Street. It is a designated Key District Centre (KDC), and a Strategic Development and Regeneration Area (SDRA) within the current Development Plan (2016-2022).</p>
	<p>Development Strategy</p> <p>Chapter 4 of the Draft Local Area Plan sets out the overall vision and key objectives for the LAP. The vision for Ballymun, as lobbied for by the people of Ballymun over the years, as articulated through the Masterplan, and as now translated into this Local Area Plan, is: -</p> <p><i>“to create a successful and sustainable new town; which provides for and supports a thriving local economy, which caters for people across all spectrums of their lifecycle in both their house type and tenure and where communities are supported by the appropriate social, sporting and cultural amenities”.</i></p> <p>To achieve this vision, it is an objective of the Ballymun Local Area Plan to deliver and develop the remaining vacant sites in Ballymun; to provide new residential homes within the neighbourhoods and new mixed-use development along the Main Street. Densities should be appropriate to each site location with higher densities sought along the Main Street and in particular in the vicinity of future anticipated Metro stations. New designs should follow principles of good urban design, deliver quality materials and contribute positively to their environment.</p> <p>To deliver the vision a number of key principles have been set out in the Plan, which are set out below: -</p> <p>Vacant Sites</p> <p>KP1: To develop the remaining vacant sites in a sustainable manner.</p> <p>Housing & Tenure</p> <p>KP2: To develop the remaining residential sites for a mix of house types and tenures to increase the population</p>

	<p>and support the existing services and businesses in the area.</p> <p>Economic Development & Employment</p> <p>KP3: To attract economic activity and stimulate new employment generating uses within the three key areas of employment; (i) M50 lands, (ii) Main Street and (iii) Industrial Estates, alongside the local level provision operating within the neighbourhood centres.</p> <p>Urban Form & Design</p> <p>KP4: To create distinctive urban places through the use of intelligent urban design and good quality materials having regard to the existing palette of materials and finishes in the area.</p> <p>Movement</p> <p>KP5: To complete outstanding infrastructure to enhance connectivity both within Ballymun and to the surrounding area, and to service the remaining development sites.</p> <p>Social & Community Infrastructure & Supports</p> <p>KP6: To consolidate existing social and community facilities to maximise their use by the whole community.</p> <p>KP7: To support the local community through the implementation of the Social Regeneration Plan and maintain the level of funding.</p> <p>Sports, Recreation & Open Space</p> <p>KP8: To consolidate existing sports and recreation facilities and open space areas to maximise their use by the whole community.</p> <p>Green Infrastructure & Biodiversity</p> <p>KP9: To provide and maintain landscaped parks, greens and tree lined streets respecting the established public realm principles.</p> <p>Drainage & Water</p> <p>KP10: To continue to implement the Surface Water Masterplan for Ballymun facilitating development of the vacant sites.</p> <p>Guiding Principles</p> <p>Chapter 15 of the Dublin City Development Plan 2016-2022 (Written Statement) sets out the following guiding principles for Ballymun: -</p> <ul style="list-style-type: none"> ▪ To maximise the employment and economic potential of Ballymun along its Main
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	<p>Street in accordance with its strategic location and its designation as a key district Centre (KDC).</p> <ul style="list-style-type: none"> ▪ To promote the delivery of a high-quality public transport system linking the airport and the city, via Ballymun. ▪ To enhance existing and establish new and appropriate land-uses that support a growing mixed-use community, and seek innovative planning responses for the key sites in the area, that respond to the environmental, social, cultural and economic issues and demands facing the area. ▪ To improve permeability both within Ballymun and to the surrounding areas. ▪ To provide a choice of tenure options and house types, promoting social inclusion and integration. ▪ To promote and enhance Ballymun and the wider area's reputation as a sustainable urban environment. ▪ To promote Ballymun as a leading arts and cultural hub serving the city and wider region. ▪ To provide an appropriate urban main street context with buildings of 4-6 storeys in height along the main street, with potential for limited increases in the vicinity of a public rail station. Key gateway landmark buildings already exist framing the 1km long main street.
	<p>Existing Environment</p> <p>The lands covered by the Ballymun LAP are located to the north of Dublin City Centre, and adjoining the administrative area of Fingal County Council to the north.</p> <p>The Santry River runs to the north of the LAP lands and the River Tolka to the south of the LAP lands.</p> <p>The Wad River also runs through part of the LAP lands and is culverted for its entire route. The Wad River drains a catchment of approximately 483 hectares including parts of Ballymun, Santry, Donnycarney and Killester to the seafront at Clontarf in North County Dublin. The Wad River, originally in open channel has been completely replaced with culverts and pipelines of varying dimensions over the 6km route from Albert College Park on Ballymun Road to the Seafront at Clontarf Road.</p> <p>Significant investment in surface water (SW)</p>

	<p>infrastructure was carried out in this area under the Ballymun Masterplan. A Masterplan for Surface Water (SWMP) was drawn up for the entire area and implemented over several years in tandem with the regeneration projects.</p> <p>Water Supply & Wastewater Treatment</p> <p>From the 1st of January 2014, Irish Water became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal of wastewater.</p> <p>Existing and future populations within the Plan area should continue to have access to adequate high quality clean drinking water. The existing water network is generally adequate for current demand and small infill growth; however more detailed investigations would have to be carried out on the capacity of the network for any proposal which would generate significant water usage. Network improvements required to address any deficiency identified by these investigations shall be addressed by Irish Water.</p> <p>Wastewater Facilities</p> <p>Ballymun is served by the Ringsend Waste Water Treatment Plant. The expansion and upgrading of the Ringsend Wastewater Treatment Plant is an urgent priority for Irish Water. It is intended to upgrade, expand the treatment works to a capacity of c. 2.1 million PE from 1.64 million PE.</p> <p>The existing foul & surface water drainage network is generally adequate to satisfy current demand and small infill growth. More detailed investigations would, however, have to be carried out on the capacity of the network for any proposal which would have a significant impact on the drainage network. Any network improvements required to address deficiencies identified by these investigations shall be addressed by Irish Water. It is an objective of the Council to facilitate Irish Water in ensuring that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance.</p> <p>Flooding</p> <p>As part of the preparation of the Local Area Plan for Ballymun a Strategic Flood Risk Assessment has been prepared in tandem with the preparation of the Local Area Plan (see separate document).</p>
Is the project or plan directly connected with or necessary to the management of the site (provide details)?	No

Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)?	No
The Assessment of Significance of Effects	
Describe how the project or Plan (alone or in combination) is likely to affect the Natura 2000 site.	The proposed development is not likely to affect Natura 2000 sites
Explain why these effects are not considered significant.	<p>It is Council policy to protect, conserve and enhance the natural heritage and environment within and adjacent to Ballymun. Dublin City Council is committed to protecting and enhancing the conservation status of these SACs and SPAs, and has specific policies relating to their protection and maintenance, as appropriate.</p> <p>In particular, it is an objective of the Council to ensure that all plans and projects in the City which could, either individually or in combination with other plans and projects have significant effects on a Natura 2000 site(s) will be subject to Appropriate Assessment Screening. Further, it is an objective of the Council to ensure the implementation of the European Communities Birds and Natural Habitats Regulations 2011 (S.I. No. 477 of 2011). No Natura 2000 site lies within the boundaries of the Draft LAP lands, therefore no direct impacts will occur through land take or fragmentation of habitats.</p> <p>Increased development and construction of residential and commercial units will lead to increased demand for potable water and increased pressure on existing and future waste water treatment systems. There are no particular constraints in terms of supplying water to future development within the Draft LAP lands. Any medium to large scale development in the area may be required to upgrade sections of the existing network to ensure adequate security of supply as deemed necessary by Irish Water, which will not result in any direct or indirect impacts on the Natura 2000 sites.</p> <p>Increased development will lead to more sewage, which will be treated at the Ringsend Waste Water Treatment Plant. It is an objective of the Council to facilitate Irish Water in ensuring that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance. Complying with the standards and requirements set out in EU and national legislation will ensure that sewage will be treated to an appropriate standard such that it will not impact on receiving waters, and therefore, will not result in any indirect impacts on the Natura 2000 sites.</p> <p>Dublin City Council is committed to protecting the watercourses within the boundaries of the Draft LAP. To this regard there are policies and objectives within the</p>

	<p>City Development Plan which focus on maintaining and protecting the natural character and ecological value of these watercourses.</p> <p>Furthermore, it is an objective of the Council to facilitate compliance with the requirements of the EU Water Framework Directive and any relevant legislation. In this regard, the Council will facilitate compliance with the relevant objectives and measures for individual water bodies set out in the Eastern River Basin Management Plan and associated Programme of Measures, where relevant.</p> <p>These policies to protect the natural character and ecological value of these watercourses will also ensure that the receiving South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA are also protected, and therefore, will not result in any indirect impacts on these Natura 2000 sites.</p>
List of agencies consulted: provide contact name and telephone or email address.	N/A
Response to consultation.	N/A
Data Collected to Carry out Assessment	
Who carried out the assessment	Dublin City Council
Sources of data	<p>NPWS database</p> <p>Internal departments Dublin City Council</p>
Level of assessment completed	Desktop
Where can the full results of the assessment be accessed and viewed?	Dublin City Council Planning Department
Overall Conclusion	Stage 1 Screening indicates that the proposed Draft LAP will not have a significant negative impact on the Natura 2000 network. Therefore, a Stage 2 'Appropriate Assessment' under Article 6(3) of the Habitats Directive 92/43/EEC is not required.

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Appendix 1: Description of Relevant Natura 2000 sites

This appendix provides further detailed information in relation to those Natura 2000 sites closest to the LAP: -

- North Dublin Bay SAC
- South Dublin Bay SAC
- Rockabill to Dalkey Islands SAC
- North Bull Island SPA
- South Dublin Bay and River Tolka Estuary SPA.

Description of the Natura 2000 Sites		
Name	Natura 2000 Designation	Basis
North Dublin Bay SAC	Special Area of Conservation (SAC 000206)	EU Habitats Directive (92/43/EEC)
Site Description	<p>North Dublin Bay</p> <p>This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. The island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (<i>Ammophila arenaria</i>) is dominant on the outer dune ridges, with Lyme Grass (<i>Leymus arenarius</i>) and Sea Couchgrass (<i>Elymus farctus</i>) on the foredunes. Behind the first dune ridge, plant diversity increases with the appearance of such species as Wild Pansy (<i>Viola tricolor</i>), Kidney Vetch (<i>Anthyllis vulneraria</i>), Bird's-foot Trefoil (<i>Lotus corniculatus</i>), Rest Harrow (<i>Ononis repens</i>), Yellow Rattle (<i>Rhinanthus minor</i>) and Pyramidal Orchid (<i>Anacamptis pyramidalis</i>). In these grassy areas and slacks, the scarce Bee Orchid (<i>Ophrys apifera</i>) occurs.</p> <p>About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees (<i>Alnus spp.</i>). The water table is very near the surface and is only slightly brackish. Saltmarsh Rush (<i>Juncus maritimus</i>) is the dominant species, with Meadow Sweet (<i>Filipendula ulmaria</i>) and Devil'sbit (<i>Succisa pratensis</i>) being frequent. The orchid flora is notable and includes Marsh Helleborine (<i>Epipactis palustris</i>), Common Twayblade (<i>Listera ovata</i>), Autumn Lady's-tresses (<i>Spiranthes spiralis</i>) and Marsh orchids (<i>Dactylorhiza spp.</i>). Saltmarsh extends along the length of the landward side of the island. The edge of the marsh is marked by an eroding edge which varies from 20 cm to 60 cm high. The marsh can be zoned into different levels according to the vegetation types present. Towards the tip of the island, the saltmarsh grades naturally into fixed dune vegetation.</p>	

	<p>The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the "Salicornia flat", which is dominated by <i>Salicornia dolichostachya</i>, a pioneer Glasswort species, and covers about 25 ha. Tassel Weed (<i>Ruppia maritima</i>) occurs in this area, along with some Eelgrass (<i>Zostera angustifolia</i>). Eelgrass (<i>Z. noltii</i>) also occurs in Sutton Creek. Cordgrass (<i>Spartina anglica</i>) occurs in places but its growth is controlled by management.</p> <p>Three rare plant species legally protected under the Flora Protection Order 1987 have been recorded on the North Bull Island. These are Lesser Centaury (<i>Centaurium pulchellum</i>), Hemp Nettle (<i>Galeopsis angustifolia</i>) and Meadow Saxifrage (<i>Saxifraga granulata</i>). Two further species listed as threatened in the Red Data Book, Wild Sage (<i>Salvia verbenaca</i>) and Spring Vetch (<i>Vicia lathyroides</i>), have also been recorded. A rare liverwort, <i>Petalophyllum ralfsii</i>, was first recorded from the North Bull Island in 1874 and has recently been confirmed as being still present there. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. The North Bull is the only known extant site for the species in Ireland away from the western seaboard North Dublin Bay is of international importance for waterfowl, the following species occurred in internationally important numbers: Brent Geese; Knot; Bar-tailed Godwit. A further 14 species occurred in nationally important concentrations - Shelduck; Wigeon; Teal; Pintail; Shoveler; Oystercatcher; Ringed Plover; Grey Plover; Sanderling; Dunlin; Blacktailed Godwit; Curlew; Turnstone and Redshank. Some of these species frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes.</p> <p>The tip of the North Bull Island is a traditional nesting site for Little Tern. However, nesting attempts have not been successful since the early 1990s. Ringed Plover, Shelduck, Mallard, Skylark, Meadow Pipit and Stonechat also nest. A well-known population of Irish Hare is resident on the island. The invertebrates of the North Bull Island have been studied and the island has been shown to contain at least seven species of regional or national importance in Ireland (Orders Diptera, Hymenoptera, Hemiptera).</p> <p>The main land-uses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co Dublin and is used throughout the year. Much of the land surface of the island is taken up by two golf courses. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. The site is used regularly for educational purposes.</p> <p>North Bull Island has been designated a Special Protection Area under the E.U. Birds Directive and it is also a statutory Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site.</p> <p>This site is an excellent example of a coastal site with all the main habitats represented. The site holds good examples of ten habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.</p>	
Qualifying Interests (Species)	Species	Basis
	Petalwort (<i>Petalophyllum ralfsii</i>)	Annex II EU Habitats Directive
Qualifying Interests (Habitats)	Habitat types (as in Annex 1 of the Habitats Directive), [Codes]	
	Mudflats and sandflats not covered by seawater at low tide [1140]	

	<p>Annual vegetation of drift lines [1210]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]*</p> <p>Humid dune slacks [2190]</p> <p>*indicates priority Habitat</p>
Conservation Objectives	
Conservation Objectives	<p>To maintain the favourable conservation condition of the following in North Dublin Bay SAC: mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows, Mediterranean salt meadows, Petalwort.</p> <p>To restore the favourable conservation condition of the following in North Dublin Bay SAC: annual vegetation of drift lines, <i>Salicornia</i> and other annuals colonizing mud and sand, Embryonic shifting dunes, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), Humid dune slacks.</p>

Description of the Natura 2000 Sites		
Name	Natura 2000 Designation	Basis
South Dublin Bay SAC	Special Area of Conservation (SAC 000210)	EU Habitats Directive (92/43/EEC)
Site Description	<p>South Dublin Bay</p> <p>This site lies south of the river Liffey 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, a habitat listed on Annex I of the E.U. Habitats Directive. 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. There is a bed of Eelgrass (<i>Zostera noltii</i>) below Merrion Gates which is the largest stand on the east coast. Green algae (<i>Enteromorpha</i> spp. and <i>Ulva lactuca</i>) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area.</p> <p>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. Driftline 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. A small area of pioneer salt marsh now occurs in the lee of an embryonic sand dune just north of Booterstown Station. This early stage of salt marsh development is here characterised by the presence of pioneer stands of Glasswort (<i>Salicornia</i> 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.</p> <p>South Dublin Bay is an important site for waterfowl. Although birds</p>	

	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, Ringed Plover, Sanderling and Dunlin, Redshank. Up to 100 Turnstones are usual in the south bay during winter. Brent Geese regularly occur in numbers of international importance. Bar-tailed Godwit, a species listed on Annex I of the EU Birds Directive, also occur. Large numbers of gulls roost in South Dublin Bay. 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, a habitat listed on Annex I of the E.U. Habitats Directive. South Dublin Bay is also an internationally important bird site.
Qualifying Interests (Species)	Species
	Petalwort (<i>Petalophyllum ralfsii</i>)
Qualifying Interests (Habitats)	Habitat types (as in Annex 1 of the Habitats Directive), [Codes]
	Mudflats and Sandflats not covered by seawater at low tide [1140]
Description of Conservation Objectives	
Conservation Objectives	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC: Mudflats.

Description of the Natura 2000 Sites		
Name	Natura 2000 Designation	Basis
Rockabill to Dalkey Islands SAC	Special Area of Conservation (SAC 003000)	EU Habitats Directive (92/43/EEC)
Site Description	<p>Rockabill to Dalkey Islands</p> <p>The site forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length and encompassing a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. It borders existing designated sites for Annexed species and habitats and is adjacent to a wide array of coastal features, e.g., mudflats, lagoons, estuaries, coastal cliffs, sea caves, several of which are also designated. Extending east from Dublin Bay towards the offshore Kish Bank, the site contains the entire Burford Bank, a sedimentary seabed structure (i.e. fine sand) at the mouth of Dublin Bay, that on its north side is flanked by gravel and coarse sand deposits. The site also contains the northern segment of the Frazer Bank (i.e. fine sand) off Dalkey Island and Killiney Bay. Reef habitats within the site occur at Dalkey Island, Maiden Rock and Muglins in the southern portion, off Howth Head, Ireland's Eye and Lambay Island in the central portion, and Rockabill in North Dublin.</p> <p>The area represents a key habitat for the Annex II species - harbour porpoise, within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for the species. Casual and effort-related sighting rates from coastal observation stations are significant for the east coast of Ireland and the latter appear to be relatively stable across all seasons.</p>	

	<p>The selected site contains a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand and mud-banks and rocky reefs scoured by strong current flow. The site also contains two Annex II seal species – Harbour seal (<i>Phoca vitulina vitulina</i>), Grey seal (<i>Halichoerus grypus</i>) for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin (<i>Tursiops truncatus</i>) has also occasionally been recorded in the area. Along the eastern seaboard the habitat type Reef is uncommon due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.</p>	
Qualifying Interests (Species)	Species	Basis
	Phocoena phocoena (Harbour Porpoise) (1351)	Annex II, of the E.U. Habitats Directive
Qualifying Interests (Habitats)	Habitat types (as in Annex 1 of the Habitats Directive), (Codes)	
	Reefs [1351]	
Description of the Natura 2000 Sites		
Conservation Objectives	<p>To maintain the favourable conservation condition of Reefs in Rockabill to Dalkey Island SAC</p> <p>To maintain the favourable conservation condition of Harbour porpoise in Rockabill to Dalkey Island SAC.</p>	

Description of the Natura 2000 Sites		
Name	Natura 2000 Designation	Basis
North Bull Island SPA	Special Protection Area (SPA 004006)	EU Birds Directive (79/409/EEC)
Site Description	<p>North Bull Island SPA</p> <p>This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses.</p> <p>A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (<i>Ammophila arenaria</i>) is dominant on the outer dune ridges. A feature of the dune system is a large dune slack with a rich flora, usually referred to as the 'Alder Marsh' because of the presence of Alder (<i>Alnus glutinosa</i>) trees. The water table is very near the surface and is only slightly brackish. Sea Rush (<i>Juncus maritimus</i>) is the dominant species, with Meadowsweet (<i>Filipendula ulmaria</i>) and Devil's-bit Scabious (<i>Succisa pratensis</i>) being frequent.</p> <p>The orchid flora is notably diverse in this area. Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay.</p> <p>The island shelters two intertidal lagoons which are divided by a solid</p>	

	<p>causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. Tasselweed (<i>Ruppia maritima</i>) and small amounts of Eelgrass (<i>Zostera</i> spp.) are found in the lagoons.</p> <p>Common Cord-grass (<i>Spartina anglica</i>) occurs in places. Green algal mats (<i>Enteromorpha</i> spp., <i>Ulva lactuca</i>) are a feature of the flats during summer. These sediments have a rich macro-invertebrate fauna, with high densities of Lugworm (<i>Arenicola marina</i>) and Ragworm (<i>Hediste diversicolor</i>).</p> <p>The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. It also qualifies for international importance as the numbers of two species exceed the international threshold – Brent Goose and Bar-tailed Godwit. A further 15 species have populations of national importance – Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Curlew, Redshank and Turnstone. The island is also regular wintering site for Short-eared Owl.</p> <p>The site has five Red Data Book vascular plant species, four rare bryophyte species, and is nationally important for three insect species. The rare liverwort, <i>Petalophyllum ralfsii</i>, was first recorded from the North Bull Island in 1874 and its presence here has recently been re-confirmed. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. A well-known population of Irish Hare is resident on the island.</p> <p>The main land-uses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co. Dublin and is used throughout the year. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. North Bull Island is also a Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site. Much of the SPA is also a candidate Special Area for Conservation. The site is used regularly for educational purposes and there is a manned interpretative centre on the island.</p> <p>The North Bull Island SPA is an excellent example of an estuarine complex and is one the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Brent Goose and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit but also Ruff and Short-eared Owl.</p>
Qualifying Interests (Species)	Species with Code identified under the EU Birds Directive
Site is selected for:	A046 Lightbellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A052 Teal <i>Anas crecca</i> A054 Pintail <i>Anas acuta</i> A056 Shoveler <i>Anas clypeata</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A144 Sanderling <i>Calidris alba</i> A149 Dunlin <i>Calidris alpina alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i>

	A157 Bar-tailed Godwit <i>Limosa lapponica</i> A160 Curlew <i>Numenius arquata</i> A162 Redshank <i>Tringa totanus</i> A169 Turnstone <i>Arenaria interpres</i> A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> A999 Wetlands
Conservation Objectives	
Conservation Objectives	To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent Goose, Shelduck, Pintail, Shoveler, Oystercatcher, Grey Plover, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Redshank, Turnstone, 20,000 wintering waterbirds, Teal, Ringed Plover, Golden Plover, Sanderling, Curlew, Blackheaded Gull. To maintain the favourable conservation condition of the wetland habitat in North Bull Island SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

Description of the Natura 2000 Sites		
Name	Natura 2000 Designation	Basis
South Dublin Bay and River Tolka Estuary SPA	Special Protection Area (IE0004024)	EU Birds Directive (79/409/EEC)
<p>Site Description</p> <p>South Dublin Bay and River Tolka Estuary SPA</p> <p>This site comprises a substantial part of Dublin Bay. It includes virtually all of the intertidal area in the south bay, as well as much of the estuary of the River Tolka to the north of the River Liffey. A portion of the shallow marine waters of the bay is also included.</p> <p>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 (<i>Zostera noltii</i>) below Merrion Gates which is the largest stand on the east coast. Green algae (<i>Enteromorpha</i> spp. and <i>Ulva lactuca</i>) are distributed throughout the area at a low density. The macroinvertebrate fauna is well-developed, and is characterized by annelids such as Lugworm (<i>Arenicola marina</i>), <i>Nephthys</i> spp. and Sand Mason (<i>Lanice conchilega</i>), and bivalves, especially Cockle (<i>Cerastoderma edule</i>) and Baltic Tellin (<i>Macoma balthica</i>). The small gastropod Spire Shell (<i>Hydrobia ulvae</i>) occurs on the muddy sands off Merrion Gates, along with the crustacean <i>Corophium volutator</i>.</p> <p>The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex. 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 Brent Goose occurs regularly and newly arrived birds in the autumn feed on the eelgrass bed at Merrion. The site supports nationally important numbers of a further six species: Oystercatcher Ringed Plover, Knot, Sanderling, Dunlin and Bar-tailed Godwit. Other species which occur in smaller numbers include Great Crested Grebe, Grey Plover, Curlew, Redshank and Turnstone. South Dublin Bay is an important site for wintering gulls, especially Black-headed Gull, Common Gull and Herring Gull. It is also the premier site in Ireland for Mediterranean Gull, with up</p>		

	<p>to 20 birds present at times. These occur through much of the year, but especially in late-winter/spring and again in late summer into winter.</p> <p>The south bay is an important tern roost in the autumn (mostly late July to September). The wintering birds within this site are now well-monitored.</p> <p>The main threat to this site is further reclamation for industrial and/or infra-structural purposes. The intertidal areas receive water that is somewhat polluted though there are no apparent impacts on the associated flora and fauna. Owing to its location in Dublin Bay, pollution such as oil spillages from Dublin Port and shipping is a threat. Commercial bait digging may be a problem - this causes disturbance to wintering birds. Disturbance to birds is also caused by walkers and dogs.</p> <p>Sandymount Strand/Tolka Estuary SPA is of high ornithological importance, being of international importance for Brent Goose and of national importance for six waterfowl species. As an autumn tern roost, it is also classified as of international importance. All of the tern species using the site are listed on Annex I of the E.U. Birds Directive, as are Batailed Godwit and Mediterranean Gull.</p>
Qualifying Interests (Species)	Species with Code identified under the EU Birds Directive
Site is selected for:	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p> <p>Wetland and Waterbirds [A999]</p>
Conservation Objectives	
Conservation Objectives	<p>To maintain the favourable conservation condition of the following species in South Dublin Bay and River Tolka Estuary SPA: Light-bellied Brent Goose, Knot, Sanderling, Bar-tailed Godwit, Redshank, Roseate Tern, Common Tern, Arctic Tern, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Dunlin, Blackheaded Gull.</p> <p>To maintain the favourable conservation condition of the wetland habitat in South Dublin and River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.</p>