Screening Report for Appropriate Assessment of a proposed development on Scholarstown Road, Knocklyon, Dublin

Compiled by OPENFIELD Ecological Services

Pádraic Fogarty, MSc MIEMA

for Ardstone

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1.0 Introduction

Biodiversity is a contraction of the words 'biological diversity' and describes the enormous variability in species, habitats and genes that exist on Earth. It provides food, building materials, fuel and clothing while maintaining clean air, water, soil fertility and the pollination of crops. A study by the Department of Environment, Heritage and Local Government placed the economic value of biodiversity to Ireland at €2.6 billion annually (Bullock et al., 2008) for these 'ecosystem services'.

All life depends on biodiversity and its current global decline is a major challenge facing humanity. In 1992, at the Rio Earth Summit, this challenge was recognised by the United Nations through the Convention on Biological Diversity which has since been ratified by 193 countries, including Ireland. Its goal to significantly slow down the rate of biodiversity loss on Earth has been echoed by the European Union, which set a target date of 2010 for *halting* the decline. This target was not met but in 2010 in Nagoya, Japan, governments from around the world set about redoubling their efforts and issued a strategy for 2020 called 'Living in Harmony with Nature'. In 2011 the Irish Government incorporated the goals set out in this strategy, along with its commitments to the conservation of biodiversity under national and EU law, in the second national biodiversity action plan (Dept. of Arts, Heritage and the Gaeltacht, 2011). A third plan was published in 2017.

The main policy instruments for conserving biodiversity in Ireland have been the Birds Directive of 1979 and the Habitats Directive of 1992. Among other things, these require member states to designate areas of their territory that contain important bird populations in the case of the former; or a representative sample of important or endangered habitats and species in the case of the latter. These areas are known as Special Protection Areas (SPA) and Special Areas of Conservation (SAC) respectively. Collectively they form a network of sites across the European Union known as Natura 2000. A report into the economic benefits of the Natura 2000 network concluded that "there is a new evidence base that conserving and investing in our biodiversity makes sense for climate challenges, for saving money, for jobs, for food, water and physical security, for cultural identity, health, science and learning, and of course for biodiversity itself" (EC, 2013).

Unlike traditional nature reserves or national parks, Natura 2000 sites are not 'fenced-off' from human activity and are frequently in private ownership. It is the responsibility of the competent national authority to ensure that 'good conservation status' exists for their SPAs and SACs and specifically that Article 6(3) of the Directive is met. Article 6(3) requires that an 'appropriate assessment' (AA) be carried out for these sites where projects, plans or proposals are likely to have an effect. In some cases this is obvious from the start, for instance where a road is to pass through a designated site. However, where this is not the case, a preliminary screening must first be carried out to determine whether or not a full AA is required.

2.0 The Purpose of this document

This document provides a screening report of a residential development along the Scholarstown Road, Knocklyon, Dublin, and its potential effects in relation to Natura 2000 sites (SACs and SPAs).

This document will assess whether effects to the Natura 2000 network are likely to occur in accordance with Article 6(3) of the Habitats Directive and the Planning and Development (Amendment) Act, 2010.

It should be noted that under the European Communities (Birds and Natural Habitats Regulations) 2011 it is the relevant competent authority, in this case South Dublin County Council, which carries out any AA or screening for AA. This report therefore aids in that decision.

3.0 Methodology

The methodology for this screening statement is clearly set out in a document prepared for the Environment DG of the European Commission entitled *'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'* (Oxford Brookes University, 2001). Chapter 3, part 1, of this document deals specifically with screening while Annex 2 provides the template for the screening/finding of no significant effects report matrices to be used.

In accordance with this guidance, the following methodology has been used to produce this screening statement:

Step 1: Management of the Site
This determines whether the project is necessary for the conservation management of the site in question.

Step 2: Description of the Project
This step describes the aspects of the project that may have an impact on the Natura 2000 network.

Step 3: Characteristics of the Natura Site
This process identifies the conservation aspects of the Natura site and determines whether negative impacts can be expected as a result of the project. This is done through a literature survey and consultation with relevant stakeholders if necessary – particularly the National Parks and Wildlife Service (NPWS). All potential effects are identified including those that may act alone or in combination with other projects or plans.

Using the precautionary principle, and through consultation and a review of published data, it is normally possible to conclude at this point whether potential impacts are likely. Deficiencies in available data are also highlighted at this stage.

Step 4: Assessment of Significance
Assessing whether an effect is likely to occur must be measured against the conservation objectives which have been set for that that Natura site.

If this analysis shows that significant effects are likely then a full AA will be required.

The steps are compiled into a screening matrix, a template of which is provided in Appendix II of the EU methodology.

Reference is also made to recently published guidelines for Local Authorities from the Department of the Environment, Heritage and Local Government (DoEHLG, 2009).

A full list of literature sources that have been consulted for this study is given in the References section to this report while individual references are cited within the text where relevant.

Screening Template as per Annex 2 of EU methodology:

This plan is not necessary for the management of any Natura 2000 site and so Step 1 as outlined above is not relevant.

4.0 Brief description of the project

The proposed development is for the construction of a residential development, commercial floorspace and all associated services. The project is described thus, as per the planning application:

The development will principally consist of: the demolition of all existing structures on site which include a single story dwelling known as 'Beechpark' (172 sq m), a 2 No. storey dwelling known as 'Maryfield' (182 sq m), with associated garage/shed (33.5 sq m) and associated outbuildings (47.1 sq m); and the construction of 590 No. residential units (480 No. Build-to-Rent apartment units and 110 No. Build-to Sell duplex units and apartments), ancillary residential support facilities and commercial floorspace. The total gross floor space of the development is 51,252 sq m over a partial basement of 5,888 sq m (which principally provides car and bicycle parking, plant and bin stores).

The 480 No. 'Build-to-Rent' units will be provided in 8 No. blocks as follows: 7 No. blocks ranging in height from part 5 to part 6 No. storeys (Blocks B1 – B5, C1 and C3) and 1 No. block ranging in height from part 4 to part 6 No. storeys (Block C2) and will comprise 246 No. one bed units and 234 No. two bed units. The 110 No. 'Build-to-Sell' units will be provided in 9 No. duplex blocks which will be 3 No. storeys in height (Blocks A1 – A9) and will comprise 55 No. two bed units and 55 No. three bed units.

The development will also consist of the provision of a part 1 to part 2 No. storey ancillary amenity block (Block D1) (414 sq m) within the central open space which comprises a gymnasium, lobby, kitchenette and lounge at ground floor level and lounge at first floor level in addition to a roof terrace (facing north, south and west) to serve the Build-to-Rent residents; a 2 No. storey retail/café/restaurant building (Block D2) (657 sq m) comprising 2 No. retail units at ground floor level (328.5 sq m) and a café/restaurant unit at first floor level (328.5 sq m); a creche (438 sq m) within Block C2 at ground floor level; and a management suite (261 sq m) and café/restaurant (288 sq m) within Block C3 at ground floor level.

The development provides a vehicular access off Scholarstown Road between Blocks C1 and C3 towards the south-east corner of the site; a separate pedestrian access and emergency vehicular access off Scholarstown Road between Blocks A9 and C2 towards the south-west corner of the site; the facilitation of a pedestrian connection from the north-east corner of the subject site to the public open space in Dargle Park; 459 No. car parking spaces (178 No. at basement level and 281 No. at surface level); bicycle parking; bin storage; boundary treatments; private balconies and terraces; hard and soft landscaping; plant; services; sedum roofs; PV panels; substations; lighting; and all other associated site works above and below ground.

The site location is shown in figures 1 and 2.

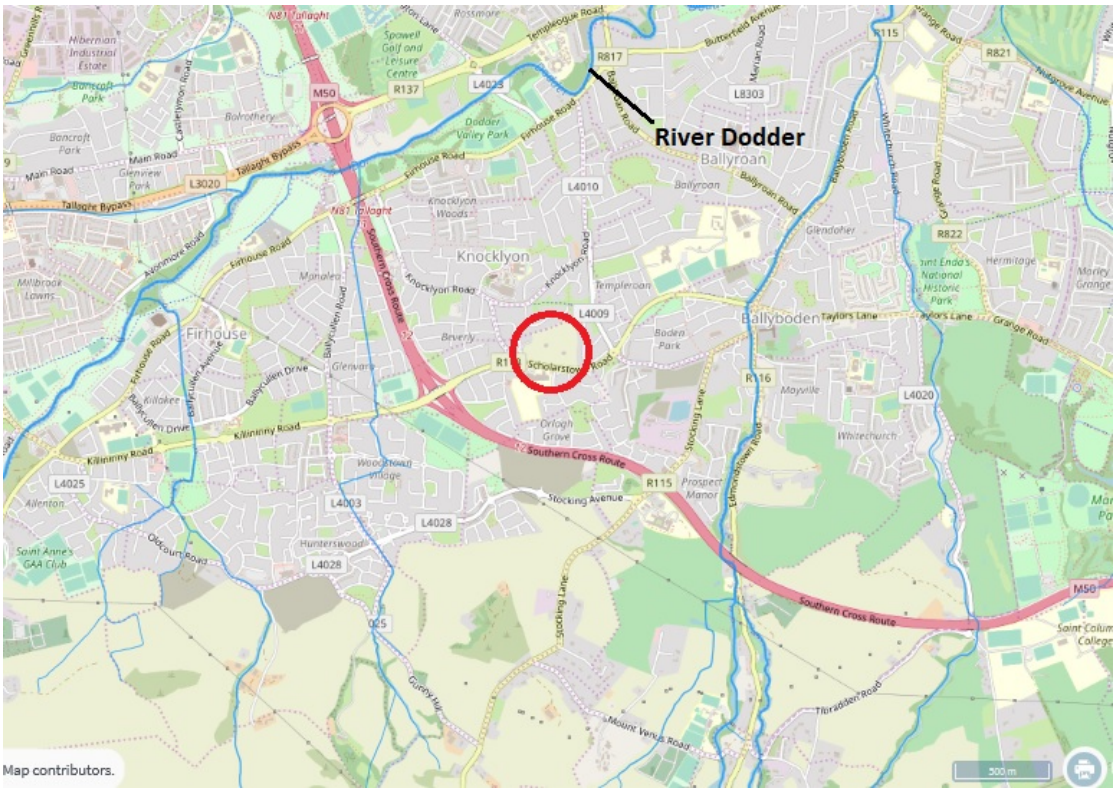

Figure 1 – Site location (red circle) with local water courses. There are no Natura 2000 sites in this view (from www.epa.ie).

The site is not located within or directly adjacent to any Natura 2000 area (SAC or SPA). This part of Dublin lies within the southern suburbs of the city and has been predominantly composed of built surfaces for many decades. Current land use in the vicinity is mostly residential and commercial along with transport arteries. Mapping from the EPA and the OSI show no water courses in this vicinity. The lands are in the catchment of the River Dodder although natural flow paths are likely to be greatly altered due to the local (artificial) sewer network. The Dodder river system is considered to be of significant value to wildlife within the urban context of Dublin City although this stretch is not within any area designated for nature conservation.

The site was visited for this study on February 5th 2019 and habitats are described here in accordance with standard classifications (Fossitt, 2000). The main portion on the land is a **dry meadow – GS2** and has not been recently grazed by animals. There are grasses such as Cock's-foot *Dactylis glomerata* and False Oat *Arrhenatherum elatius* as well as typical grassland plants such as Nettle *Urtica dioica,* Creeping Buttercup *Ranunculus repens,* Ribwort Plantain *Plantago lanceolata* and Curled Dock *Rumex crispus.* Within this field there are two **buildings – BL3** of relatively modern construction. To the rear of the site there are also associated outbuildings. Within this area of grassland there are a number of mature trees, including Oak *Quercus sp.* and Sycamore *Acer pseudoplatanus.* There is also an expanse of **bare soil – ED2** to the north-east.

The external margins of the field are composed of either modern block **stone walls – BL1** (to the north and east), or **treelines – WL2** (to the south and west). There is also a treeline running between the northern boundary and the residential building. This treeline, along with the western boundary is dominated by non-native Leyland Cypress *Cuprocyparis leylandii* and so is of low biodiversity value.

The southern treeline, running parallel with the Scholarstown Road, contains some tall Oak, Sycamore, Larch *Larix decidua,* Ash *Fraxinus excelsior,* Beech *Fagus sylvatica* and Horse Chestnut *Aesculus hippocastanum.* In the south-west corner of the site, within the treeline and close to a residential home, there is a stand of Three-cornered Garlic *Allium triquetrum* and Spanish Bluebell *Hyacinthoides hispanica.* These are alien invasive species as listed under SI No. 477 of 2011. An Invasive Species Management Plan has been prepared.

The site is surrounded on all sides by suburban housing or other building development. The construction phase will see land clearance and use of standard building materials along with the generation of noise associated with the movement of machinery, heavy vehicles etc. A number of tall broad-leaved trees are to be retained within the scheme.

Currently surface water from the site percolates to soil or runs directly off hard surfaces to local drains. The proposed development complies with the Greater Dublin Strategic Drainage Study (GDSDS). Specifically, this includes attenuation storage and controlled release to the municipal surface sewer.

Storm water will be separate from the foul sewer and will ultimately discharge to the River Dodder. Additional SUDS measures include permeable paving on driveways, sedum roofs on apartment buildings and a Class I fuel/oil separator prior to discharge to the sewer.

Foul effluent from the proposed development will be sent to the wastewater treatment plant at Ringsend in Dublin. Emissions from the plant are currently not in compliance with the Urban Wastewater Treatment Directive. In February 2018 Irish Water announced proposals to upgrade the Ringsend plant and apply for planning permission for a new plant in north County Dublin. This will see improved treatment standards and will increase network capacity by 50%, with a target completion date of 2023. There are no other discharges from this operation.
Fresh water supply for the development will be via a mains supply. This originates in the Poulaphouca Reservoir. The proposed development is not likely to significantly affect the demand for freshwater water from the site.

Figure 2 – indicative site boundary and habitats overlain on recent aerial photograph (from www.google.com).

Figure 3 –site layout

5.0 Brief description of Natura 2000 sites

In assessing the zone of influence of this project upon Natura 2000 sites the following factors must be considered:

- Potential impacts arising from the project
- The location and nature of Natura 2000 sites
- Pathways between the development and the Natura 2000 network

It has already been stated that the site is not located within or directly adjacent to any Natura 2000 area. For projects of this nature an initial 2km radius is normally examined (IEA, 1995). This is an arbitrary distance however and impacts can occur at distances greater than this. There are no Natura areas within this radius. The **South Dublin Bay and River Tolka Estuary SPA (site code: 4024)**, the **South Dublin Bay SAC (0210)** and the **Poulaphouca Reservoir SPA (site code: 4063)**, from which drinking water supply for this development will originate, are considered to fall within the zone of influence of this project. The **North Dublin Bay SAC (site code: 0206)** and **North Bull Island SPA (site code: 4006)** are also in this region These are considered to be the only Natura 2000 areas within the zone of influence of the development as pathways do not exist to other areas.

Table 1 – Features of interest for SPAs in Dublin Bay (EU code in square parenthesis)

North Bull Island SPA	South Dublin Bay and Tolka Estuary SPA
Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
Oystercatcher (*Haematopus ostralegus*) [A130]	Oystercatcher (*Haematopus ostralegus*) [A130]
Teal (*Anas crecca*) [A052]	Ringed Plover (*Charadrius hiaticula*) [A137]
Pintail (*Anas acuta*) [A054]	Grey Plover (*Pluvialis squatarola*) [A140]
Shoveler (*Anas clypeata*) [A056]	Knot (*Calidris canutus*) [A143]
Shelduck (*Tadorna tadorna*) [A048]	Sanderling (*Calidris alba*) [A144]
Golden Plover (*Pluvialis apricaria*) [A140]	Dunlin (*Calidris alpina*) [A149]
Grey Plover (*Pluvialis squatarola*) [A141]	Bar-tailed Godwit (*Limosa lapponica*) [A157]
Knot (*Calidris canutus*) [A143]	Redshank (*Tringa totanus*) [A162]
Sanderling (*Calidris alba*) [A144]	Black-headed Gull (*Croicocephalus ridibundus*) [A179]
Dunlin (*Calidris alpina*) [A149]	Roseate Tern (*Sterna dougallii*) [A192]
Black-tailed Godwit (*Limosa limosa*) [A156]	Common Tern (*Sterna hirundo*) [A193]
Bar-tailed Godwit (*Limosa lapponica*) [A157]	Arctic Tern (*Sterna paradisaea*) [A194]
Curlew (*Numenius arquata*) [A160]	Wetlands & Waterbirds [A999]
Redshank (*Tringa totanus*) [A162]	
Turnstone (*Arenaria interpres*) [A169]	
Black-headed Gull (*Larus ridibundus*) [A179]	
Wetlands & Waterbirds [A999]	

The **South Dublin Bay and Tolka Estuary SPA** (side code: 4024) is largely coincident with the South Dublin Bay SAC boundary with the exception of the Tolka Estuary. The **North Bull Island SPA** (site code: 0206) meanwhile is largely coincident with the North Dublin Bay SAC with the exception of the terrestrial portion of Bull Island. These designations encompass all of the intertidal areas in Dublin Bay from south of the Howth peninsula to the pier in Dun Laoghaire. Wintering birds in particular are attracted to these areas in great number as they shelter from harsh conditions further north and avail of

the available food supply within sands and soft sediments. Table 1 lists the features of interest for both of the SPAs.

- **Light-bellied Brent Goose.** There has been a 67% increase in the distribution of this goose which winters throughout the Irish coast. The light-bellied subspecies found in Ireland breeds predominantly in the Canadian Arctic.
- **Sanderling.** This small bird breeds in the high Arctic and winters in Ireland along sandy beaches and sandbars. Its wintering distribution has increased by 21% in the previous 30 years.
- **Dunlin.** Although widespread and stable in number during the winter season, the Irish breeding population has collapsed by nearly 70% in 40 years. Breeding is now confined to just seven sites in the north and west as habitat in former nesting areas has been degraded.
- **Knot.** These small wading birds do not breed in Ireland but gather in coastal wetlands in winter. Their numbers have increased dramatically since the mid-1990s although the reasons for this are unclear.
- **Black-headed Gull.** Widespread and abundant in winter these gulls are nevertheless considered to be in decline. The reasons behind this are unclear but may relate to the loss of safe nesting sites, drainage, food depletion and increase predation.
- **Ringed Plover.** This bird is a common sight around the Irish coast where it is resident. They breed on stony beaches but also, more recently, on cut-away bog in the midlands.
- **Oystercatcher.** Predominantly coastal in habit Oystercatchers are resident birds whose numbers continue to expand in Ireland.
- **Bar-tailed Godwit.** These wetland wading birds do not breed in Ireland but are found throughout the littoral zone during winter months. They prefer estuaries where there are areas of soft mud and sediments on which to feed.
- **Grey Plover.** These birds do not breed in Ireland but winter throughout coastal estuaries and wetlands. Its population and distribution is considered to be stable.
- **Roseate Tern.** This tern breeds at only a few stations along Ireland's east coast. Most of these are in decline although at Dublin their colony is increasing.
- **Common Tern.** This summer visitor nests along the coast and on islands in the largest lakes. Its breeding range has halved in Ireland since the 1968-1972 period.
- **Arctic Tern.** These long-distance travellers predominantly breed in coastal areas of Ireland. They have suffered from predation by invasive mink and are declining in much of their range.
- **Redshank.** Once common breeders throughout the peatlands and wet grasslands of the midlands Redshanks have undergone a 55% decline in distribution in the past 40 years. Agricultural intensification, drainage of wetlands and predation are the chief drivers of this change.
- **Teal**. In winter this duck is widespread throughout the country. Land use change and drainage however have contributed to a massive decline in its breeding range over the past 40 years.

- **Pintail**. Dabbling duck wintering on grazing marshes, river floodplains, sheltered coasts and estuaries. It is a localised species and has suffered a small decline in distribution in Ireland for unknown reasons.
- **Shoveler**. Favoured wintering sites for this duck are inland wetlands and coastal estuaries. While there have been local shifts in population and distribution, overall their status is stable in Ireland.
- **Shelduck.** The largest of our ducks, Shelduck both breed and winter around the coasts with some isolate stations inland. Its population and range are considered stable.
- **Golden Plover.** In winter these birds are recorded across the midlands and coastal regions. They breed only in suitable upland habitat in the north-west. Wintering abundance in Ireland has changed little in recent years although it is estimated that half of its breeding range has been lost in the last 40 years.
- **Black-tailed Godwit.** Breeding in Iceland these waders winter in selected sites around the Irish coast, but predominantly to the east and southern halves. Their range here has increase substantially of late.
- **Curlew.** Still a common sight during winter at coastal and inland areas around the country it breeding population here has effectively collapsed. Their habitat has been affected by the destruction of peat bogs, afforestation, farmland intensification and land abandonment. Their wintering distribution also appears to be in decline.
- **Turnstone.** This winter visitor to Irish coasts favours sandy beaches, estuaries and rocky shores. It is found throughout the island but changes may be occurring due to climate change.

Bird counts from BirdWatch Ireland are taken from Dublin Bay as a whole and are not specific to any particular portion of the Bay. Dublin Bay is recognised as an internationally important site for water birds as it supports over 20,000 individuals. Table 2 shows the most recent count data available[1].

Table 2 – Annual count data for Dublin Bay from the Irish Wetland Birds Survey (IWeBS)

Year	2010/11	2011/12	2012/13	2013/14	2014/15	Mean
Count	27,931	30,725	30,021	35,878	33,486	31,608

There were also internationally important populations of particular birds recorded in Dublin Bay (i.e. over 1% of the world population): Light-bellied brent geese *Branta bernicula hrota*; Black-tailed godwit *Limosa limosa*; Knot *Calidris canutus* and Bar-tailed godwit *L. lapponica*.

The **South Dublin Bay SAC** (side code: 0210) is concentrated on the intertidal area of Sandymount Strand. It has four qualifying interests: mudflats and sandflats not covered by seawater at low tide (1140), annual vegetation of drift lines (1210), Salicornia and other annuals colonising mud and sand (1310) and Embryonic shifting dunes (2110).

[1] https://f1.caspio.com/dp.asp?AppKey=f4db3000060acbd80db9403f857c

- **Annual vegetation of drift lines (1210)** This habitat of the upper shore is characterised by raised banks of pebbles and stones. They are inhabited by a sparse but unique assemblage of plants, some of which are very rare. The principle pressures are listed as gravel extraction, the building of pipelines and coastal defences.
- **Embryonic shifting dunes (2110).** As their name suggests these sand structures represent the start of a sand dune's life. Perhaps only a meter high they are a transient habitat, vulnerable to inundation by the sea, or developing further into white dunes with Marram Grass. They are threatened by recreational uses, coastal defences, trampling and erosion.
- **Tidal mudflats (1140)**. This is an intertidal habitat characterised by fine silt and sediment. Most of the area in Ireland is of favourable status however water quality and fishing activity, including aquaculture, are negatively affecting some areas.
- **Salicornia mudflats (1310)**: This is a pioneer saltmarsh community and so is associated with intertidal areas. It is dependent upon a supply of fresh, bare mud and can be promoted by damage to other salt marsh habitats. It is chiefly threatened by the advance of the alien invasive Cordgrass *Spartina anglica.* Erosion can be destructive but in many cases this is a natural process.

The **North Dublin Bay SAC** (site code: 0206) is focussed on the sand spit on the North Bull island. The qualifying interests for it are shown in table 3. The status of the habitat is also given and this is an assessment of its range, area, structure and function, and future prospects on a national level and not within the SAC itself.

Table 3 – Qualifying interests for the North Dublin Bay SAC

Habitat/Species	Status[2]
Mudflats and sandflats not covered by seawater at low tide	Inadequate
Salicornia and other annuals colonizing mud and sand	Favourable
Atlantic salt meadows	Inadequate
Mediterranean salt meadows	Inadequate
Annual vegetation of drift lines	Inadequate
Embryonic shifting dunes	Inadequate
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	Inadequate
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Bad
Humid dune slacks	Inadequate
Petalophyllum ralfsii Petalwort	Favourable

[2] NPWS. 2019. *The Status of EU Protected Habitats and Species in Ireland.* Habitat Assessments Volume 1: Summary Report, National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

- **Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) (2120).** These are the second stage in dune formation and depend upon the stabilising effects of Marram Grass. The presence of the grass traps additional sand, thus growing the dunes. They are threatened by erosion, climate change, coastal flooding and built development.
- **Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130).** These are more stable dune systems, typically located on the landward side of the mobile dunes. They have a more or less permanent, and complete covering of vegetation, the quality of which depends on local hydrology and grazing regimes. They are the most endangered of the dune habitat types and are under pressure from built developments such as golf courses and caravan parks, over-grazing, under-grazing and invasive species.
- **Humid dune slacks (2190).** These are wet, nutrient enriched (relatively) depressions that are found been dune ridges. During winter months or wet weather these can flood and water levels are maintained by a soil layer or saltwater intrusion in the groundwater. There are found around the coast within the larger dune systems.
- **Petalwort (1395).** There are 30 extant populations of this small green liverwort, predominantly along the Atlantic seaboard but also with one in Dublin. It grows within sand dune systems and can attain high populations locally.

At its nearest point the **Poulaphouca Reservoir SPA** (site code: 4063) is located approximately 17km from the site of the proposed development. Its 'features of interest' include the Greylag Goose *Anser anser* and the Lesser Black-backed Gull *Larus fuscus*.

Whether any of these SACs or SPAs is likely to be affected must be measured against their 'conservation objectives'. Specific conservation objectives have been set for all of these areas with the exception of the Poulaphouca Reservoir. Generic conservation objectives have been published by the NPWS and are stated as:

To maintain or restore the favourable conservation condition of the Annexed species for which the SPA has been selected.

In a generic sense 'favourable conservation status' of a habitat is achieved when:

• its natural range, and area it covers within that range, are stable or increasing, and
• the specific structure and functions which are necessary for its long - term maintenance exist and are likely to continue to exist for the foreseeable future, and
• the conservation status of its typical species is favourable.

While the 'favourable conservation status' of a species is achieved when:

• population dynamics data on the species concerned indicate that it is maintaining itself on a long - term basis as a viable component of its natural habitats, and
• the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
• there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long - term basis.

Specific conservation objectives have been set for mudflats in the South Dublin Bay SAC (NPWS, 2013) and for all qualifying interests the North Dublin Bay SAC (NPWS, 2013). The objectives relate to habitat area, community extent, community structure and community distribution within the qualifying interest. There is no objective in relation to water quality.

For the South Dublin Bay & Tolka Estuary SPA and the North Bull Island SPA the conservations objectives for each bird species relates to maintaining a population trend that is stable or increasing and maintaining the current distribution in time and space (NPWS, 2015a & b).

For the Poulaphouca Reservoir SPA, generic conservation objectives have been published by the NPWS and are as previously stated above (NPWS, 2018).

6.0 Data collected to carry out the assessment

Describe the individual elements of the plan (either alone or in combination with other plans or projects) likely to give rise to impacts on the SAC:

Details from the NPWS site synopsis report and the most recent data from BirdWatch Ireland's Wetlands Bird Survey (IWeBS) indicate that Dublin Bay is of international importance for wintering birds meaning that it regularly holds a population of over 20,000 birds. Total counts from IWeBS are shown in table 2.

The site is predominantly composed of low biodiversity value habitats although mature broad-leaved trees provide resources for some local wildlife. It is located in a suburban area of Dublin city which is predominantly composed of hard surfacing. It is connected to a number of Natura 2000 areas via wastewater and surface water run-off.

The EU's Water Framework Directive (WFD) stipulates that all water bodies were to have attained 'good ecological status' by 2015 or with certain exceptions, by 2027 at the latest. This includes estuarine waters and in 2010 the first River Basin Management Plan (RBMP) was published to address pollution issues. This included a 'programme of measures' which was to be completed. A second RBMP was published in 2018 and this includes a list of 190 'priority areas for action' where progress will be focused upon for the 2018-2021 period.

The monitoring stations along the River Dodder in Dublin City show moderate pollution. The most recent monitoring dates from 2016 where sampling at the bridge on Springfield Avenue showed 'moderately polluted' conditions. The Dodder enters the River Liffey near the East Link bridge in Dublin city centre. The lower Liffey Estuary has most recently (2014) been assessed by the Environmental Protection Agency (EPA) as 'unpolluted' – a term which implies 'good status'. The coastal water beyond the estuary is also assessed as 'unpolluted' (from www.epa.ie). These classifications indicate that water quality downstream of the Custom House is currently meeting the requirements of the WFD.

Of the species listed in table 1 three: Dunlin, Redshank and Black-headed Gull are listed as of high conservation concern, and on BirdWatch Ireland's red list (Colhoun & Cummins, 2013).

- Dunlins do not breed on the east coast of Ireland while their winter range, which includes a number of coastal and wetland areas across the country, has declined by over 50% between 1994/5 and 2008/09. The reason for this decline is unclear.
- Wintering Redshank numbers in Ireland have changed little since the early 1980s while their breeding sites, based around wetlands west of the River Shannon and some eastern coastal areas, has fallen by 55% in 40 years. This can be attributed to habitat loss from agricultural intensification and drainage.
- Black-headed Gulls remain a frequent winter presence and their red listing relates to their breeding status only. This has seen a 55% decline in 40 years for reasons which are not clear but may relate to loss of nesting sites, predation, food depletion or drainage. They are not recorded as breeding in the Dublin area. (Balmer et al., 2013).

Of relevance to this study is it noted that although declines in these species cannot always be attributed to clear causes, there is no evidence that water quality issues have been a factor.

7.0 The Assessment of Significance of Effects

Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.

In order for an effect to occur there must be a pathway between the source (the development site) and the receptor (the SAC or SPA). Where a pathway does not exist, an impact cannot occur.

The proposed development is not located within, or adjacent to, any SAC or SPA.

Habitat loss

At its closest point the site is nearly 9km away (as the crow flies) from the boundary of the Natura 2000 areas within Dublin Bay. In reality however, this distance is greater as the hydrological pathway follows the course of the

drainage network to the Dodder. There is no direct pathway to the Tolka estuary from this development as it lies to the north of the River Liffey. Because of the distance separating the site and the SPA/SAC there is no pathway for loss or disturbance of important habitats or important species associated with the features of interest of the SPA.

Hydrological pathways
There is a pathway from the site via wastewater and surface flows to Dublin Bay, via the Ringsend treatment plant and the River Dodder respectively. This project will increase the loading to the Ringsend plant.

Water quality is not listed as a conservation objective for the SPAs in Dublin Bay. Nor is water quality listed as a conservation objective for the SACs.

Pollution during operation - wastewater
Pre-connection feedback has been received from Irish Water which advises that a connection to the Irish water network can be facilitated. While the issues at Ringsend wastewater treatment plant are being dealt with in the medium-term evidence suggests that some nutrient enrichment is benefiting wintering birds for which SPAs have been designated in Dublin Bay (Nairn & O'Hallaran eds, 2012). Additional loading to this plant arising from the operation of this project are not considered to be significant based on two points:

1. There is no evidence that pollution through nutrient input is affecting the conservation objectives of the South Dublin Bay and River Tolka Estuary SPA.

2. Accepting that pollution is undesirable, regardless of the conservation objectives of the SPA, and would be contrary to the aims of the Water Framework Directive, then the upgrading works at Ringsend wastewater treatment plant will address future capacity demand.

Pollution during operation – surface water
Because SUDS measures have been incorporated into the project design there can be no impact from this development to the quantity or quality of surface water leaving the site. These are standard measures which are incorporated into all new development projects. They have not been introduced to avoid or reduce an effect to a Natura 2000 area and so are not considered to be mitigation in an AA context. Even in the absence of SUDS significant effects are not likely to occur.

Pollution during construction
During the construction phase there will be earth works although there are no direct pathways to the River Dodder. While sediment can be detrimental to the ecological quality of freshwater bodies, the same is not the case for estuaries and tidally influenced habitats, which rely on vast quantities of sediment for their functioning. No negative effect to Natura 2000 areas can occur from this

source. As a result, discharges of surface water from this project cannot result in significant effects to SACs or SPAs in Dublin Bay.

The subject site is located in a suburban environment close to significant noise and artificial light sources such as roads. Given this context it cannot contribute to potential disturbance impacts to species or habitats of conservation significance in Dublin Bay.

Although Three-cornered Garlic and Spanish Bluebell are invasive species, there is no evidence that it poses a threat to the conservation objectives of the Natura 2000 within the zone of influence of this project. In accordance with best practice, the plants will be treated to prevent its spread, however this is not mitigation for any potential impact to Natura 2000 sites. A separate Invasive Species Plan has been prepared within the Environmental Impact Assessment Report.

Are there other projects or plans that together with the project or plan being assessed could affect the site?

Implementation of the WFD will ensure that improvements to water quality in Dublin Bay and the River Liffey are maintained or enhanced where relevant. Within the 2nd RBMP a number of tributaries of the Liffey have been highlighted as 'areas for action', including the Dodder, the Tolka, the Morell and the Lyreen. This is expected to see improvements to WFD status by 2021.

Environmental water quality can be impacted by the effects of surface water run-off from areas of hard standing. These impacts are particularly pronounced in urban areas and can include pollution from particulate matter and hydrocarbon residues, and downstream erosion from accelerated flows during flood events. In this case the proposed development will result in a small enhancement to the quality and quantity of water leaving the site.

In March 2005 the Greater Dublin Drainage Study (GDDS) was published as a policy document designed to provide for future drainage infrastructure. The implementation of this policy will see broad compliance with environmental and planning requirements in an integrated manner. This is likely to result in a long-term improvement to the quality and quantity of storm water run-off in the capital. This project is fully compliant with the GDDS. The completion of upgrade works at Ringsend, a priority for Irish Water, will see greater compliance with quality standards of effluent and so an expected improvement in water quality in Dublin Bay.

This development will add to the loading at the Ringsend wastewater treatment plant. This plant is not compliant with its emission limit standards however work is underway to increase treatment capacity. According to the 2018 Annual Environmental Report for the plant, "the discharge from the wastewater treatment plant does have an observable negative impact on the water quality in the near field of the discharge and in the Liffey and Tolka

Estuaries". This report highlights that other sources of pollution also present from riverine inputs, sewerage overflows, misconnections and unsewered properties. The AER does not comment on whether, or how, these issues are affecting Natura 2000 sites in Dublin Bay and there is currently no evidence to suggest that such effects are occurring. It is therefore not considered that 'in combination' effects may arise from this source.

This application can be seen in combination with other 'brown field', or in-fill, developments across the city. This is leading to improvements in the standard of surface water attenuation but at the same time increasing pressure on the Ringsend wastewater treatment plant. As described, this is being addressed by on-going upgrade works at the plant. It is not considered that any affect can arise in combination with these future phases, or with other plans and project, which could result in significant effects to any Natura 2000 area.

List of agencies consulted

Because of the low ecological sensitivity of this site no nature conservation observations were sought from third parties.

8.0 Conclusion and Finding of No Significant Effects

This project has been screened for AA under the appropriate methodology. It has found that significant effects are not likely to arise, either alone or in combination with other plans or projects to the Natura 2000 network.

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