Screening for Appropriate Assessment for retention application at Green Isle Road, Corkagh, Dublin 22

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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).

The main policy instruments for conserving biodiversity in Ireland have been the Birds Directive of 1979 and the Habitats Directive of 1992. These Directives 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. 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.

The Purpose of this document

This document provides for the screening of an application for retention of changes to a permitted development at the site off the Green Isle Road, Corkagh, Dublin 22. This document will assess whether effects to the Natura 2000 network are likely to have occurred, or are occurring, as a result of these

changes in accordance with Article 6(3) of the Habitats Directive and the Planning and Development (Amendment) Act, 2010. Under the aforementioned Act the Planning Authority is prohibited from granting retention consent where it is deemed that significant effects to a Natura 2000 area were likely to have occurred, or are occurring.

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 Natura 2000 site
This determines whether the project is necessary for the conservation management of the site in question.

Step 2: Description of the Plan
This step describes the aspects of the plan that may have an impact on the Natura 2000 site.

Step 3: Characteristics of the Natura 2000 Sites
This process identifies the conservation aspects of the site and determines whether negative impacts can be expected as a result of the plan. This is done through a literature survey and consultation with relevant stakeholders – 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 effects are likely to occur. Deficiencies in available data are also highlighted at this stage.

Step 4: Assessment of Significance
Assessing whether an effect is significant or not is dependant on whether the project is likely to have an effect on the integrity of the Natura 2000 site in question.

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 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 the site and so Step 1 as outlined above is not relevant.

Brief description of the project

The subject site is located to the north of Junction 2 of the N7 primary road from Dublin to Cork and Limerick, and is shown in figures 1 and 2. It lies to the west of Dublin City in an area which is moderately built-up with significant areas composed of artificial and other built surfaces. The subject lands can be classified as a combination of **buildings and artificial surfaces** and **grassland** under the Fossitt habitats scheme (Fossitt, 2000). They are highly modified habitats, of low biodiversity value and not related to any habitat listed under Annex I of the Habitats Directive.

The site is 'brown field', i.e. it is already composed of highly modified surfaces that have previously been built upon. Previous planning consents have been granted for the site (ref. S95A/0409 & SD05A/1047) which involved the construction of the existing built elements for commercial horticultural purposes. The current application seeks to retain a number of changes described thus:

The development consists of retention / continuance of use of the existing 3 buildings (1no. warehouse and 2no. greenhouse buildings) and the associated external areas for warehousing and ancillary uses, storage of motor vehicles, plant, machinery and other durable products and for the sale by auction of these goods. Retention permission is also sought for car parking, open storage, boundary treatments/ fencing and all associated site and development works.

These changes have not affected volumes of wastewater being generated.

There has been no change to the total area of hard standing and so no changes to the quality and/or quantity of surface water runoff have occurred.

Changes to the activities on the site are within existing, permitted buildings as well as the storage of plant/machinery on areas of existing hard standing. An area of gravel to be retained was previously grassland and was bounded on all sides by built surfaces.

The site is not located within or directly adjacent to any Natura 2000 area (SAC or SPA). Figure 1 shows that there are no Natura 2000 areas within 2km of the site. 2km is an initial, arbitrary radius that is frequently used for developments of this nature (IEA, 1995). Impacts can occur at greater distances than 2km and so the zone of influence may be widened as this assessment progresses. The site is within the catchment of the Camac River, a tributary of the River Liffey, which flows into Dublin Bay approximately 18km downstream (following the flow of the rivers). This part of Dublin Bay is designated as both SAC and SPA, being part of the South Dublin Bay & Tolka Estuary SPA (site code: 4042) and South Dublin Bay SAC (code: 0210).

Figure 1 – Site location (red circle) and approximate 2km radius. Note there are no Natura 2000 sites in this view (from www.npws.ie) .

A site visit was carried out on April 17th 2014 and this is marginally within the optimal season for general habitat survey (Smith et al., 2010). For a study of this nature it is essential that pathways to Natura 2000 areas are identified and in this regard a full and comprehensive assessment was possible. The built areas are **artificial surfaces – BL3** and have negligible vegetation cover. A large field to the east can be classified as **agricultural grassland – GA1** (although it may not be in agricultural use). It is maintained however and is dominated by grasses such as Yorkshire Fog *Holcus lanatus* and Cock's-foot *Dactylis glomerata* with a number of ruderal species such as Clovers *Trifolium sp.*, Thistles *Cirsium sp.* and Dandelions *Taraxacum sp.* This is a habitat of low biodiversity value. Semi-natural field boundaries, **treeline – WL2**, can be

found to the east and north of the site. These are composed of a range of tree and shrub species such as Scot's Pine *Pinus sylvestris*, Elm *Ulmus glabra*, Goat Willow *Salix caprea*, Holly *Ilex aquifolium* and Hawthorn *Crataegus monogyna*. It has a dense base with Cow Parsley *Anthriscus sylvestris*, Hogweed *Heracleum sphondylium*, Cowslip *Primula veris* and Lords-and-ladies *Arum maculatum*. To the east this treeline borders the Corkagh Park amenity area and may blend into woodland. It is a habitat of high local value to biodiversity (NRA, 2009). There are no water courses or open water bodies on the site although to the north-east there is a wet area. It is composed of a small grove of Willow *Salix sp.* and Aspen *Populus tremula* with Brown Sedge *Carex disticha*, Hard Rush *Juncus inflexus* and Meadowsweet *Filipendula ulmaria*. Further to the north, beyond the site boundary, there is an open pond while the Kingswood stream and Camac River both run shortly beyond the site boundary.

There are no alien invasive species growing on the site.

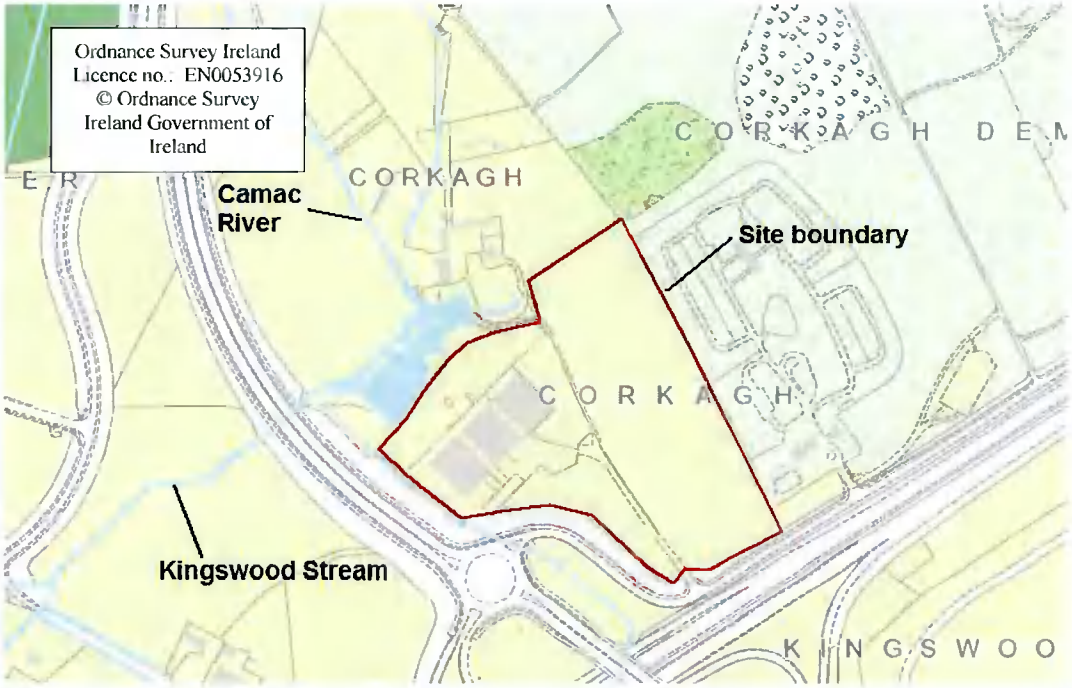

Figure 2 – Site location (in red line) in relation to the River Liffey (from www.npws.ie). Note, there are no SACs or SPAs in this view.

The changes to the permitted development have not impacted either directly or indirectly upon these areas of semi-natural habitat. This development occurs in a location that is already moderately built-up and composed of artificial surfaces. Activities in the locality are of a commercial, transport and amenity nature with and while there are opportunities for wildlife there are no habitats that are listed on Annex I of the Habitats Directive. Noise and artificial lighting are already features of development in this area and the features to be retained will not add to this.

There are no point air emissions from the project. Figure 3 shows the site layout. Surface water from areas of hard standing currently drain to the

Kingswood Stream, at a point to the north-west of the site. Storm water from roofs is collected in holding tanks, where it is subsequently used for irrigation. As part of proposed changes to the site configuration, a suitably sized attenuation tanks, with flow limiting device and Class I oil/grit interceptor, is to be installed. This will moderate the quantity of storm water leaving the site as well as removing likely pollutants.

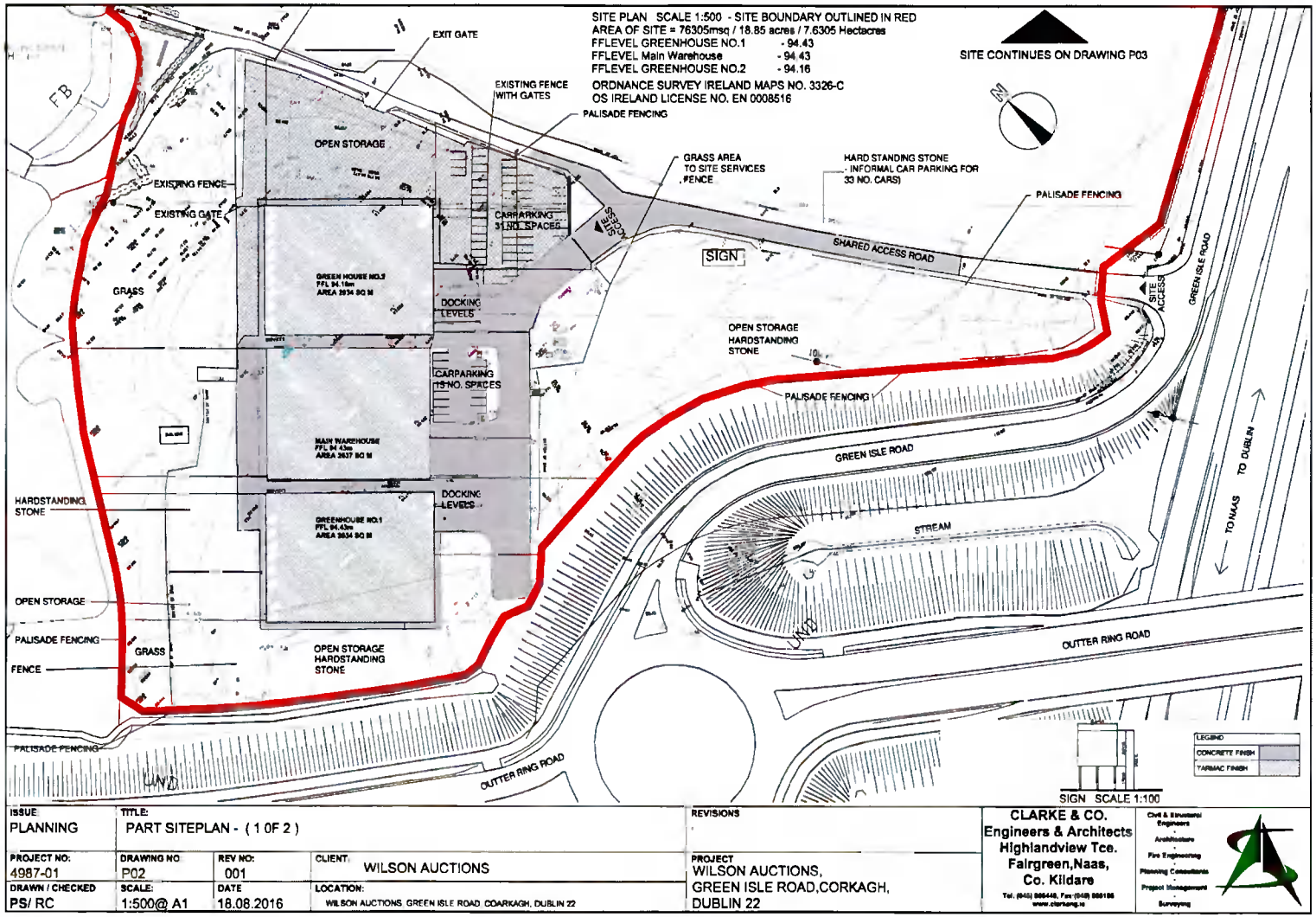

Figure 3 – showing site layout

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 development
- 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. Within the water catchment of the site, and at a distance of approximately 18km (following the route of the Liffey), there are two such locations in Dublin Bay. 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 all considered to fall within the zone of influence of this project. 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. The North Dublin Bay SAC and North Bull Island SPA are also in this region although there is no pathway to these areas from the project.

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 is 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 form 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 (Crowe et al., 2012).

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

Year	2006/07	2007/08	2008/09	2009/10	2010/11	Mean
Count	31,575	31,247	33,933	33,634	27,931	31,700

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 one qualifying interest which is mudflats and sandflats not covered by seawater at low tide. Tidal mudflats (habitat code: 1140) 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. At a national scale it is assessed as of 'intermediate' status (NPWS, 2013).

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[1]
Mudflats and sandflats not covered by seawater at low tide	Intermediate
Salicornia and other annuals colonizing mud and sand	Intermediate
Atlantic salt meadows	Intermediate
Mediterranean salt meadows	Intermediate
Annual vegetation of drift lines	Intermediate
Embryonic shifting dunes	Intermediate
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	Intermediate
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Bad

[1] NPWS. 2013. *The Status of EU Protected Habitats and Species in Ireland.* Habitat Assessments Volume 2. Version 1.0. Unpublished Report, National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Humid dune slacks	Intermediate
Petalophyllum ralfsii Petalwort	Good

- **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.
- **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 14km 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 the South Dublin Bay SAC (NPWS, 2013b) and the North Dublin Bay SAC (NPWS, 2013c). 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, 2016).

Data collected to carry out the assessment

The site was visited as part of this study and it was found that there are no habitats on the site that are listed on Annex I of the Habitats Directive. There are no alien invasive species growing on the site and while there are water courses in the immediate vicinity these are not impacted by the development.

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.

The site is 18km away from the nearest SAC/SPA boundary (South Dublin Bay SAC / South Dublin Bay & River Tolka Estuary SPA). Because of the distance separating the site and the SAC/SPA there is no pathway for loss or disturbance of important habitats or other semi-natural habitats that may act as ecological corridors for important species associated with the qualifying interests of the Natura 2000 sites.

There is a pathway from the site via surface water flows to Dublin Bay, via the River Liffey (surface water). However there is no source of pollution, from either wastewater or surface water that could result in impacts to this area. For this reason Natura 2000 areas in Dublin Bay are considered to be beyond the zone of influence of this project and negative effects cannot occur.

The subject site is located in a semi-urban environment close to significant noise and artificial light sources. Given that there are no SPAs or SACs within 2km of this development it will not contribute to potential noise impacts to species or habitats of conservation significance.

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

Since there are no sources of impacts arising from this project there can be no impacts that could be significant if acting in combination with other, similar sources elsewhere.

List of agencies consulted

The Development Applications Unit (DAU) of the Department of the Arts, Heritage and the Gaeltacht does not respond to requests for nature conservation observations where a project has already entered the planning system.

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 that will result in significant effects to the integrity of the Natura 2000 network.

A full appropriate assessment of this project is therefore not required.

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