

# Screening Report for Appropriate Assessment of development at lands at Cornelscourt Village, Old Bray Road, Cornelscourt, Dublin 18

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December 2019

## 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. This screening is carried out by the Local Authority and this report can aid in that decision.

## The Purpose of this document

This document provides for the screening of a proposed residential development on the site at Cornelscourt Village, Old Bray Road, Cornelscourt, Dublin 18, and its potential effects in relation to Natura 2000 sites (SACs and SPAs). Under the Planning and Development Acts, the Local Authority cannot grant planning permission where significant effects may arise to a Natura 2000 area. In order to make that decision the development must be screened for AA. This report provides the necessary information to allow Dun Laoghaire Rathdown County Council to carry out this screening.

## 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 Project**

This step describes the aspects of the project that may have an impact on the Natura 2000 site.

### **Step 3: Characteristics of the Site**

This process identifies the conservation aspects of the 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 – 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 significant or not is dependent on whether the project is likely to have an effect on the conservation objectives of the 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 the site and so Step 1 as outlined above is not relevant.

#### **Brief description of the project**

The proposal is described thus, as per the planning application:

*The proposed development shall provide for the construction of a new residential development of 468 no. units in the form of 452 no. apartment units (41 no. studio apartment units, 257 no. 1 bed apartment units, 136 no. 2 bed apartment units; and 18 no. 3 bed apartment units) and 16 no. house units (10 no. 3 bed semi-detached house units and 6 no. 1 bed bungalow units). A café / restaurant of c. 140 sq m; office space of 149 sq m; concierge of c. 149 sq m and central residential tenant amenity space of c. 458 sq m is also proposed.*

*The following build - to - rent residential development is provided:*

1. *452 build to rent apartment units (ranging from 1 - 12 storeys in height) in the form of 8 no. new residential blocks (Blocks A - H) as follows:*
  - *Block A (8 - 12 storeys) comprising 134 no. apartments (12 no. studio units, 93 no. 1 bed units and 29 no. 2 bed units);*
  - *Block B (2 - 9 storeys) comprising 103 no. apartments (18 no. studio units, 65 no. 1 bed units; 14 no. 2 bed units and 6 no. 3 bed units);*
  - *Block C (6 - 7 storeys) comprising 82 no. apartments (6 no. studio units, 60 no. 1 bed units and 16 no. 2 bed units);*
  - *Block D (5 storeys) comprising 36 no. apartments (1 no. studio unit, 5 no. 1 bed units; and 30 no. 2 bed units);*
  - *Block E (4 storeys) comprising 29 no. apartments (4 no. 1 bed units; and 25 no. 2 bed units);*
  - *Block F (2 - 4 storeys) comprising 56 no. apartments (4 no. studio units, 24 no. 1 bed units; and 16 no. 2 bed units and 12 no. 3 bed units);*
  - *Block G (3 storeys) comprising 6 no. apartments (3 no. 1 bed units and 3 no. 2 bed units); and*

- *Block H (3 storeys) comprising 6 no. apartments (3 no. 1 bed units and 3 no. 2 bed units).*
- 2. *10 no. 3 bed semi-detached houses (2 storey) and 6 no. 1 bed bunaglows (1 storey) are proposed.*

*Adjacent to the existing pedestrian and vehicular access point from Old Bray Road there will be a café/restaurant of 140 sq m and residential amenity area at ground and first floor providing resident support services and concierge services of 149 sq m. At first floor level is a proposed commercial office space of c. 149 sq m. Located centrally within the development attached to the southern gable of Block B there is a two storey residential amenity space of c. 458 sq m; providing for resident support facilities and amenities including reading room, lounge, gym and terrace.*

*Each residential unit will be afforded with private open space in the form of a balcony/terrace/roof terrace or private rear garden area. Public open space is also proposed in the form of external residential amenity spaces, play areas, courtyards and gardens.*

*274 car parking spaces (273 at basement level and 1 at ground level), 616 bicycle parking spaces (512 at basement level and 104 at ground level) and 12 motorcycle spaces (12 at basement level) are proposed.*

*Basement areas of c. 9,024 sq m are proposed (Level -1) and include car parking, waste management areas and plant areas. 3 no. ESB substations and 3 no. Switch Rooms (c. 77 sq m combined) are proposed at ground level.*

*The development shall be served via the existing vehicular access point from the Old Bray Road. Upgrade works are proposed to this vehicular access point to facilitate the proposed development and to provide for improved access and egress for the overall development.*

*Provision is made for new pedestrian connections to Willow Grove; the N11; and Cornelscourt Village. Provision is also made for a new cyclist connection to the N11. A drop-off zone is also proposed at the entrance to the site.*

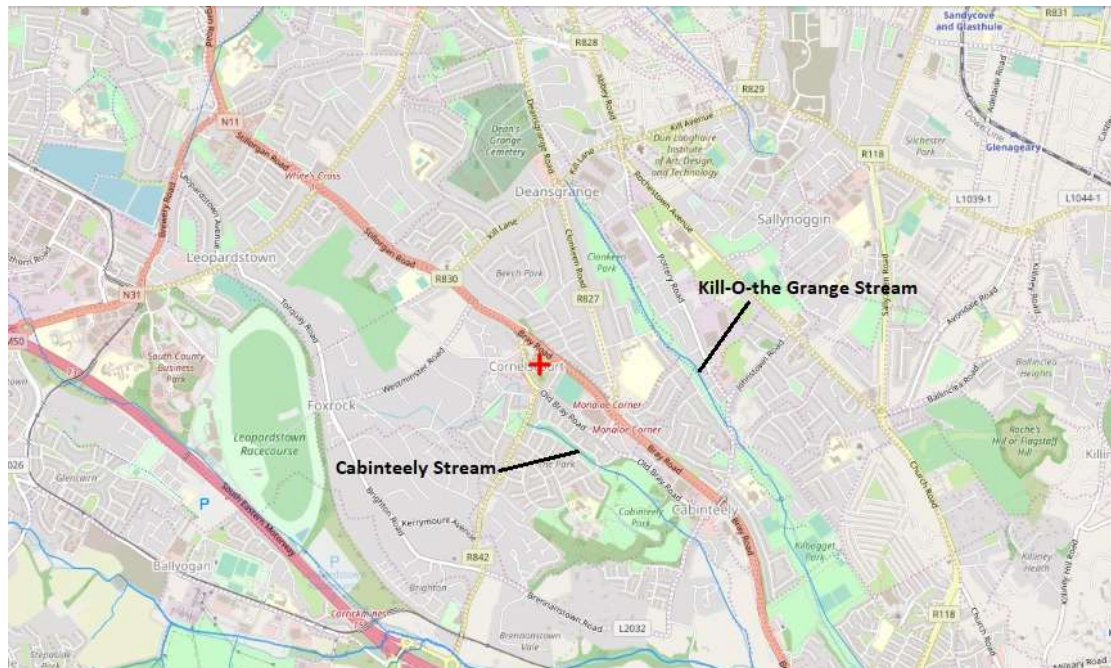
*The associated site and infrastructural works include provision for water services; foul and surface water drainage and connections; attenuation proposals; permeable paving; all landscaping works; boundary treatment; internal roads and footpaths; and electrical services.*

The site location is shown in figures 1 and 2 while the proposed layout is given in figure 3.

It is planned to construct a residential scheme on the site at Cornelscourt Village, Old Bray Road, Cornelscourt, Dublin 18 as previously described. This will involve a construction phase to include new surface water drainage infrastructure and connection to electricity and wastewater networks.

The main phases of this project include:

- Site clearance and preparation.
- A construction phase using standard building materials.
- Construction will include a new surface water drainage infrastructure and connection to electricity and wastewater networks.
- An operation phase whereby the buildings will be occupied.



**Figure 1 – Site location (red cross) showing local water courses (from [www.epa.ie](http://www.epa.ie)). There are no Natura 2000 areas in this view.**

The site is not located within or directly adjacent to any Natura 2000 area (SAC or SPA). This part of south Dublin is a built-up residential zone and is predominantly composed of artificial surfaces although parks and gardens do provide some semi-natural habitat. Mapping from the OSI and EPA show that the lands are within the catchment of no significant water course. There are a number of short water courses in this vicinity, including the Cabinteely Stream (also labelled as the St. Bride's Stream) and the Kill-O-the Grange Stream (which passes through the subject lands). They discharge into the Irish Sea between Killiney and Shankill, south of Dublin Bay. Rainwater currently percolates to the soil or enters local drains.

The site was visited for this study on January 23<sup>rd</sup> 2019. Habitats are described here in accordance with standard classifications (Fossitt, 2000). The site can best be described as **dry meadow – GS2** along with a patch of **bare soil – ED2** (approximately 10% of the total areas). Grassy areas are dominated by typical species such as False Oat *Arrhenatherum elatius*, Common Couch *Elytrigia repens* and Cock's-foot *Dactylis glomerata* along with Creeping Buttercup *Ranunculus repens*, Docks *Rumex sp.* and Thistles *Cirsium sp.*

The boundary to the north-west and north is characterised by an **earth berm – BL2** with Winter Heliotrope *Petasites fragrans*, Butterfly-bush *Buddleja davidii*

and Brambles *Rubus fruticosus* agg. Other boundary are concrete walls with Ivy *Hedera helix* and occasional Elder *Sambucus nigra*.

There are no water courses on, or immediately adjacent to the site boundary.

To the east there is a stand of Japanese Knotweed *Fallopia japonica* (which is an alien invasive species). It is listed in SI No. 477 of 2011 as alien invasive. This has been treated with standard herbicide by Invasive Plant Solutions and an Invasive Species Management Plan has been prepared to ensure it does not spread arising from construction or operation activities.

These habitats are of low local value for common species which are habituated to human disturbance, however they are not associated with any which are listed as of high conservation value (i.e. Annex I Habitats Directive).

Currently there is no attenuation of rain run-off. In accordance with the Greater Dublin Strategic Drainage Study this project will incorporate sustainable drainage systems (SUDS) that will maintain the quality and quantity of run-off at the 'greenfield' rate. This will include attenuation storage and outfall to an existing surface water sewer via flow control device. Additional SUDS methods include the use of green roofs and infiltration trenches.

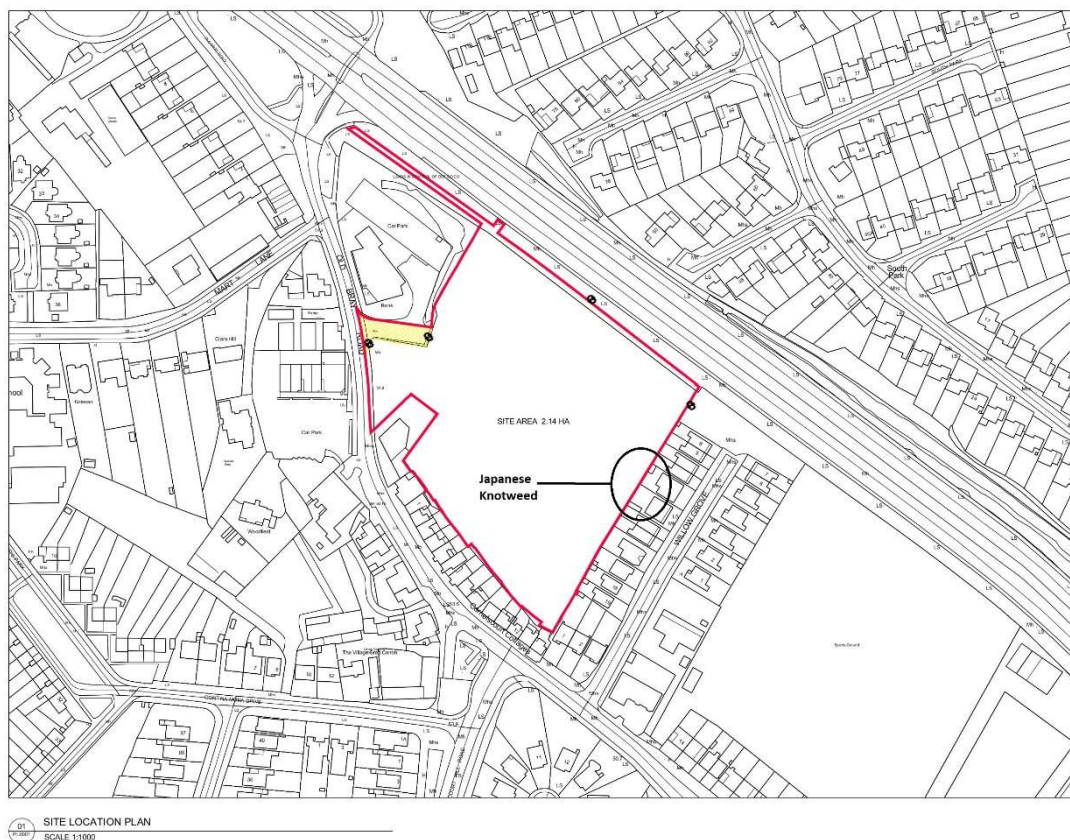


Figure 2 – Site boundary (aerial photo from [www.google.com](http://www.google.com))

Foul wastewater 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. Irish Water, the authority in charge of the wastewater treatment network, has prioritised the enhancement of the Ringsend plant. 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.

There are no point air emissions from the site while some dust and noise can be expected during the construction phase.



**Figure 3 – Proposed layout plan**



### 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. There are no Natura areas in the vicinity of the development site. Wastewater will discharge to the **South Dublin Bay and River Tolka Estuary SPA (site code: 4024)**; and the **South Dublin Bay SAC (0210)**, via the Ringsend wastewater treatment plant. The **North Dublin Bay SAC (site code: 0206)** and **North Bull Island SPA (site code: 4006)** are also in this region. The **Poulaphouca Reservoir SPA (site code: 4063)**, from which drinking water supply for this development will originate, is also 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.

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

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

Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157]	Arctic Tern ( <i>Sterna paradisaea</i> ) [A194]
Curlew ( <i>Numenius arquata</i> ) [A160]	Wetlands & Waterbirds [A999]
Redshank ( <i>Tringa totanus</i> ) [A162]	
Turnstone ( <i>Arenaria interpres</i> ) [A169]	
Black-headed Gull ( <i>Larus ridibundus</i> ) [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 its 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<sup>1</sup>.

**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).

- **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.

<sup>1</sup> <https://fl.caspio.com/dp.asp?AppKey=f4db3000060acbd80db9403f857c>

**Table 3 – Qualifying interests for the North Dublin Bay SAC**

Habitat/Species	Status <sup>2</sup>
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 <i>Ammophila arenaria</i> (white dunes)	Inadequate
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Bad
Humid dune slacks	Inadequate
<i>Petalophyllum ralfsii</i> Petalwort	Favourable

- **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 between 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 25km 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

<sup>2</sup> NPWS. 2019. *The Status of EU Protected Habitats and Species in Ireland*. Habitat Assessments Volume 1: Summary Report. Department of Culture, Heritage and the Gaeltacht, Dublin, Ireland.

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).

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### Data collected to carry out the assessment

Habitats on the site are not associated with either intertidal habitats or species listed in table 2.

The EU's Water Framework Directive (WFD) stipulates that all water bodies were to have attained 'good ecological status' by 2015, or with exemptions by 2027 at the latest. In 2009 the first River Basin Management Plan (RBMP) was published to address pollution issues and included a 'programme of measures' which was to be completed.

The coastal waters of the bay have most recently (2014) been assessed by the Environmental Protection Agency (EPA) as 'unpolluted' (from [www.epa.ie](http://www.epa.ie)). It was assessed as 'good' in terms of its status under the WFD for the 2010-15 reporting period. This classification indicates that water quality in the bay is of a sufficient standard to meet the requirements of the WFD. Future developments must not jeopardise this status.

In 2018 a second RBMP was published which highlights 190 'priority areas for action' where resources will be focussed during the 2018-2021 period. The Tolka and Dodder, as well as the upper Liffey are among those areas where improvements are expected.

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.

Of the species listed in table 1 six: Curlew, Dunlin, Redshank, Pintail, Shoveler 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.
- Wintering Pintails and Shoveler are believed to be declining in Dublin Bay
- Wintering Curlew have experienced a small decline but their status is nevertheless assessed as 'favourable' (Balmer et al., 2013).

A 'supporting document' has been published by the NPWS which gives a detailed assessment of the features of interest for which SPAs in Dublin Bay have been designated (NPWS, 2014). In particular, it presents information on the trends of these features and the pressures which are likely to affect these trends. It has determined that five species: Grey Plover, Shelduck, Pintail, Shoveler, Golden Plover and Black-headed Gull, are of unfavourable status while the remainder are 'favourable'. In the case of the Grey Plover it was found that its population trend is decreasing both within Dublin Bay and at an all-Ireland level. For this reason it is reasonable to assume that the factors for its decline are not unique to Dublin Bay. The Black-headed Gull population was not assessed in this way. Only for Shoveler is it considered that significant declines are being experienced due to site conditions.

Of relevance to this study this report highlights that poor water quality has long been an issue in Dublin Bay. This was manifest in macroalgal blooms of brown and green algae, particularly around Bull Island and the Tolka Estuary. Some improvements in the trophic status has occurred since the 1990s, particularly as a result of new wastewater treatment facilities at Ringsend in 2003. On-going improvements to water quality are highlighted as a potential risk to certain bird populations as a reduction in primary production (i.e. food for birds) may arise both as densities of invertebrates and algal mats is reduced.

### **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**

The site is approximately 3km from the boundary of the South Dublin Bay and River Tolka estuary SPA/SAC as the crow flies and the intervening land is occupied by residential/urban development and transport links. Because of the distance separating the two areas there is no pathway for loss or disturbance of habitats listed in table 1 or other semi-natural habitats that may act as ecological corridors for important species associated with the qualifying interests of the Natura 2000 sites.

#### **Hydrological pathways**

There is a pathway from the site to Dublin Bay via the Ringsend wastewater treatment plant. Surface water pathways lead to the Irish Sea south of the SAC/SPA and so there is no connection to Natura areas from this source.



**Pollution during operation - wastewater**

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**

New surface water attenuation measures are designed so that there will be no net change to the quantity or quality of surface water leaving the site. These are standard measures in all development projects and are not introduced here to avoid or reduce an effect to a Natura 2000 area. There are therefore not considered to be mitigation measures in an AA context. No significant effects can occur to the SAC or SPA arising from this source.

**Pollution during construction**

During the site clearance and construction phases it is unlikely that sediment will become entrained in rain run-off as there are no water courses in this vicinity. Furthermore, there is no pathway to Natura areas from this source.

**Invasive Species**

Following best practice, the stand of Japanese Knotweed has been cordoned off and a programme of eradication commenced during the 2019 growing season. A site assessment report has been prepared by Invasive Plant Solutions and a multi-annual control programme has been developed. Nevertheless, this is not mitigation for impacts to Natura 2000 areas, as even without treatment no impacts to SACs or SACs could occur as there is no pathway to such areas.

**Disturbance**

This development is unlikely to increase disturbance effects to birds in Dublin Bay given its distance from these sensitive areas.

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

Implementation of the WFD will result in continued improvements to water quality in Dublin Bay. 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. The latter impact is unlikely to occur in this part of south Dublin since the bay has long been defined by sea walls and other defences.

There can be no negative impact to surface water quality leaving the site due to the attenuation measures which are planned.

In 2005 the Greater Dublin Drainage Study (GDDS) was published as a policy document designed to provide for drainage infrastructure to 2030. 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 compliant with the requirements of this policy.

The completion of upgrade works at Ringsend by 2023 will see greater compliance with quality standards of effluent and so an expected improvement in water quality in Dublin Bay.

There are no projects which can act in combination with this development which can give rise to significant effect to Natura areas within the zone of influence.

*List of agencies consulted*

Due to the low ecological sensitivity of this site, third party observations were not sought.

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 any SAC or SPA.

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