

# Housing development, Old Road, Hayestown. Rush, Co. Dublin

## Screening for Appropriate Assessment

Technical Report

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Final



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## Contract

This report describes work commissioned by Esmond O'Briain of O'Briain Beary Architects, on behalf of Fingal County Council, by a letter dated 18-03-2020. Malin Lundberg, Patricia Byrne and William Mulville of JBA Consulting carried out this work.

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## Abbreviations

AA	Appropriate Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
DoEHLG	Department of Environment, Heritage and Local Government
EC	European Communities
EPA	Environmental Protection Agency
IROPI	Imperative Reasons of Over-riding Public Interest
NBDC	National Biodiversity Data Centre
NDDS	North Dublin Drainage System
NOx	Nitrogen Oxides
NPWS	National Parks and Wildlife Service
QI	Qualifying Interest
SAC	Special Area of Conservation
SPA	Special Protection Area
SuDS	Sustainable Urban Drainage Systems
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant

# 1 Introduction

## 1.1 Background

JBA Consulting Ireland Ltd. has been commissioned by O'Briain Beary Architects to undertake a Screening for Appropriate Assessment in relation to the proposed housing development at Hayestown, Rush, Co. Dublin by Fingal County Council.

## 1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment:

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

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

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

*Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."*

The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of the Habitats Regulations, 1997 (S.I. No. 94 of 1997) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 / 2011).

## 1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DEHLG) (2009). These guidance documents identify a staged approach to conducting an AA, as shown in Figure 1-1.

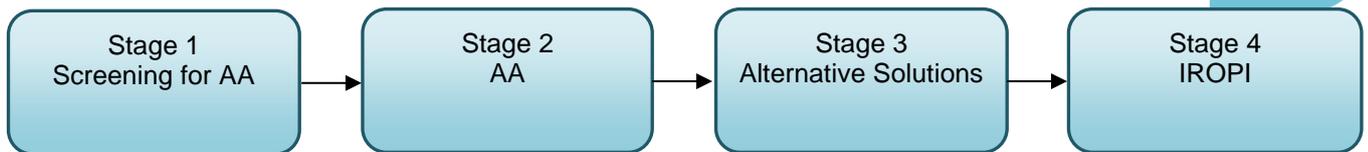


Figure 1-1: The Appropriate Assessment Process (from: Guidance for Planning Authorities, DEHLG, 2009).

### 1.3.1 Stage 1 - Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation

if it is likely to have a significant adverse effect on the European designated site, either individually or in combination with other plans or projects

For those sites where, potential adverse impacts are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse impact on the integrity of a European designated site, in view of the site's conservation objectives (i.e. the process proceeds to Stage 2).

### 1.3.2 Stage 2 - AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect impacts of them on the integrity and interest features of the European designated site(s), alone and in combination with other plans and projects, taking into account the site's structure, function and conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, then alternative solutions will need to be considered (i.e. the process proceeds to Stage 3).

### 1.3.3 Stage 3 - Alternative Solutions

Where adverse impacts on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the process proceeds to Stage 4.

### 1.3.4 Stage 4 - IROPI

Where adverse impacts of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest can be demonstrated. In this case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant impacts are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse impacts on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.

## 1.4 Methodology

The Screening for Appropriate Assessment has been carried out with reference to the following documents:

- DoEHLG (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DoEHLG 2009).
- European Communities (EC) (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission 2000).

- EC (2002) 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, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission et al. 2002).
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. European Commission (European Commission 2007).
- CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. (Chartered Institute of Ecology and Environmental Management, 2016)
- Fossitt, J., (2000). A Guide to Habitats in Ireland. The Heritage Council, Kilkenny (Fossitt 2000).

Data has been collected from a range of sources, including:

- NPWS website ([www.npws.ie](http://www.npws.ie));
- River Basin Management Plans (RBMP) ([www.wfdireland.ie](http://www.wfdireland.ie));
- NBDC Biodiversity Maps (<http://maps.biodiversityireland.ie/#/Map>);
- Catchments ([www.catchments.ie](http://www.catchments.ie))
- Fingal County Council website ([www.fingal.ie](http://www.fingal.ie))

#### 1.4.1 Limitations and Constraints

The screening assessment necessarily relies on some assumptions and it was inevitably subject to some limitations. These would not affect the conclusion, but the following points are recorded in order to ensure the basis of the assessment is clear:

- Information on the works and conditions on site are based on current knowledge at the time of writing. Changes to the site since surveys were undertaken cannot be accounted for.
- Some slight variation in the works methodology may occur, but these can only be minor changes. Where changes to methodology could impact on ecological features, an ecologist will be consulted to determine if the project needs re-screening.
- Adverse weather can cause delays to the schedule and alter the timing of works. This has been accounted for using a worst-case scenario where necessary.

## 2 Project Description

### 2.1 The 'Project'

The proposed development meets the criteria of a 'Project' as defined in the Habitats Directive and is not directly connected with or necessary to the management of any Natura 2000 site. Therefore, the Project is subject to the requirements of the Appropriate Assessment process.

### 2.2 Site location

The site is located to the north west of Rush. The site is bounded to the south by Old Road and to the north by Hayestown Housing Estate. There is an open watercourse running along the centre of the site. The site is a total area of approximately 2.41 Hectares.

The land is zoned RS-Residential: 'Provide for residential development and protect and improve residential amenity' (myplan.ie, 2020).

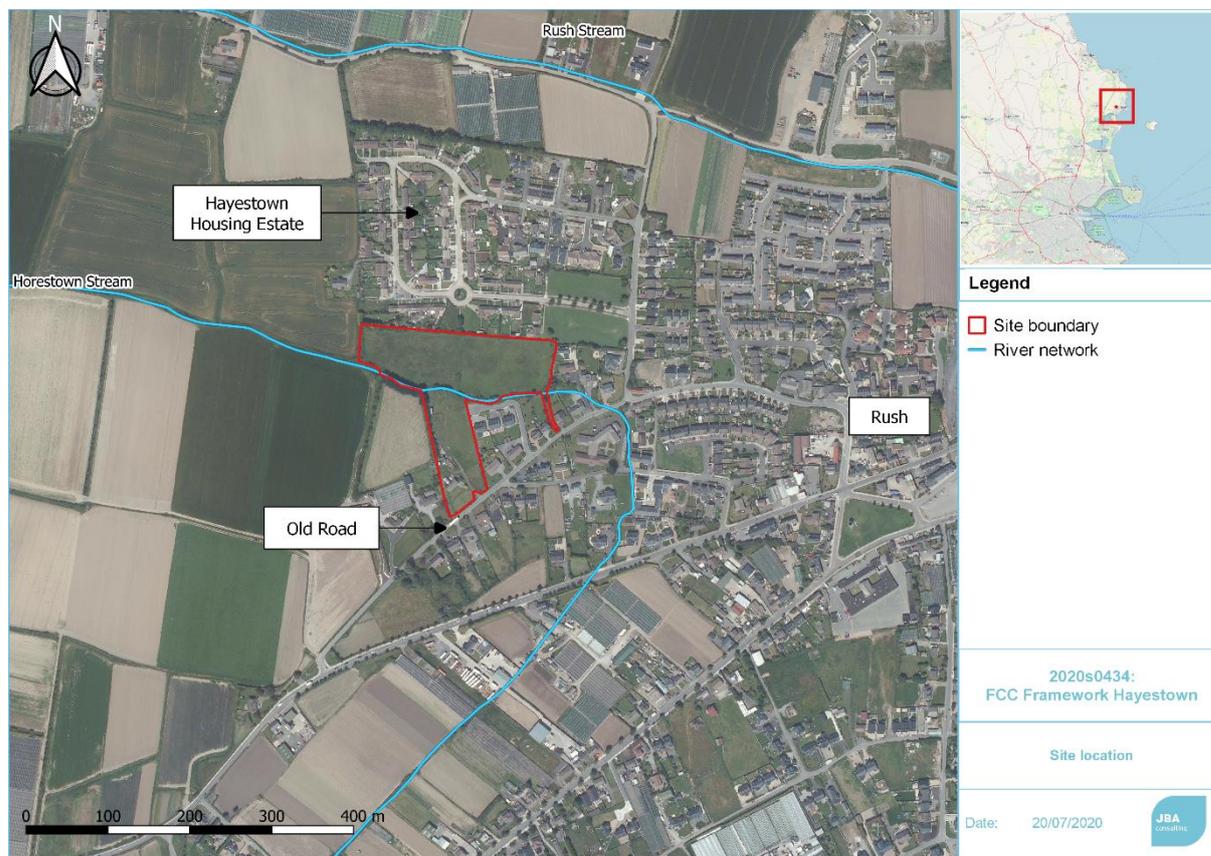


Figure 2-1: Site location

### 2.3 Proposed project

The development will include 53 new dwellings in a mix of types and sizes as advised by Fingal County Council Housing Department in the following numbers:

- 45 No. of 3-bedroom units
- 17 No. of 2-bedroom units

Access to the south will be via Old Road.

The proposed development will require a new vehicular and pedestrian crossing of the existing watercourse passing through the site, approximately 10m wide (6m carriageway and 2m footpaths each side). The proposed structure shall comprise a 3-sided "bottomless" box culvert with precast concrete footing. The use of a 3-sided pre-cast concrete culvert shall minimise the extent and duration of the

work, lessen the potential of concrete spillage/damage by shuttering, and will allow the natural stream bed to remain intact, thereby ensuring maximum protection to the natural flora and fauna on the watercourse and maintaining the existing hydraulic characteristics of the watercourse. The channel shall be reinstated with clean round gravel in such a size range as required by Inland Fisheries Ireland.

#### **Foul water and surface water layout**

The foul water drainage network will be separate from the surface water drainage system and will comply with "Irish Water – Code of Practice of Wastewater Infrastructure: Dec 2017 IW-CDS-5030-03". The foul water will be collected from each proposed dwelling unit via ventilated soil pipes and inspection chambers which then discharge to a demarcation chamber located within a maximum 1m of the property boundary on the private side. These demarcation chambers in turn then discharge to the main 225mm uPVC foul sewer which runs throughout the main development. It is proposed that the foul sewer will connect to the existing foul sewer at Doctor's Lane. A pre-connection enquiry has been submitted to Irish Water on 14 July 2020 seeking a confirmation of feasibility to connect to the existing foul drainage network and to the existing water supply network.

A Sustainable Urban Drainage Systems (SuDS) approach will be implemented for surface/storm water management. Surface water from the rear roofs of the dwellings in the northern area will be collected to individual water butts for garden use, with excess water directed to a rain garden and/or detention basin. Surface water from front roofs, pavements and roadways will be conveyed to a roadside filter strip and dry conveyance swale. Excess water will be conveyed to the detention basin. Water from the detention basin is released to Horestown Stream at a controlled, Greenfield rate using a Hydrobrake device.

Surface water from the rear roofs of the dwellings in the southern area will be collected to individual water butts for garden use, with excess water directed to a detention system. Surface water from front roofs, pavements and roadways will be conveyed to the roadside bioretention system (tree pits or similar linear system). Excess water will be conveyed to the detention system. Water is released from the detention system to the watercourse southwest of the site at the junction of Old Road and Whitestown Road at a controlled, Greenfield rate using a Hydrobrake device.

The effectiveness of the SuDS components has been analysed following criteria set out in Chapter 26 of CIRIA C753 The SuDS Manual. The total pollution mitigation indices are greater than the risk indices and the SuDS components are deemed to provide a satisfying pollution prevention.

Site layout plan and drainage plan is provided in Appendix A and B respectively.

#### **2.3.1 Project Area of Influence**

The project will primarily affect the site only, but a wider area of influence is used for impacts relating to noise disturbance (1km), air pollution (5km), surface water (15km).

### 3 Existing Environment

#### 3.1 Baseline conditions

Two site visits were carried out by JBA Consulting ecologists on 18 May 2020 (Patricia Byrne) and 17 June (P. Byrne and William Mulville). The T-shaped site on the western edge of the Hayestown/Rush conurbation consists of an abandoned bungalow, garden and adjoining field at the south of the site, and two adjoining fields at the north of the site. The site was accessed off the Old Road to Hayestown, which diverges off the R128, Whitestown Road, Rush, Co. Dublin. The east and north of the site are bound by houses, gardens and a football field, and by agricultural fields to the west. Housing is also located to the immediate west of the site on the Old Road. Horestown Stream separates the two northerly fields from the house and field to the south.

#### 3.2 Habitats

Habitats are listed in Table 3-1 and described in sections below. A habitat map of the site is seen in Figure 3-1 and Appendix C.

Table 3-1: List of habitats recorded on site

Habitat	Fossitt Code
Dry calcareous and neutral grassland	GS1
Wet grassland	GS4
Depositing lowland river	FW2
Drainage Ditches	FW4
Scrub	WS1
Treelines	WL1
Hedgerows/Treelines	WL1/WL2
Immature woodland	WS2
Buildings and artificial structures	BL3



Figure 3-1: Habitat map

### GS1 Dry calcareous and neutral grassland

The site largely consists of three abandoned agricultural fields. These fields have reverted to semi-natural grassland.

Grassland species in the southern field include, meadow-grasses *Poa* spp., Sweet Vernal-grass *Anthoxanthum odoratum*, Cock's Foot *Dactylis glomerata*, Yorkshire Fog *Holcus lanatus*, False Oat-grass *Arrhenatherum elatius* and Timothy *Phleum pratense*, with Dandelion *Taraxacum* spp., Ribwort Plantain *Plantago lanceolata*, Meadow Buttercup *Ranunculus acris*, Red Clover *Trifolium pratense*, vetch *Vicia* spp., Common Hogweed *Heracleum sphondylium* and Thistle *Cirsium* spp. also occurring.

The abandoned front garden of the house has also reverted to grassland and was dominated by False Oat-grass, with Ivy *Hedera helix* and Bramble *Rubus fruticosus* agg. interspersed along the ground. A number of *Leylandi* trees also occurred in the garden.

### GS1/ GS4 Dry calcareous and neutral grassland/ Wet grassland

The north western field (Figure 3-3) was dominated by tussocky grasses Downy Oat-grass *Avenula pubescens* and False Oat-grass, as well as Creeping Soft-grass *Holcus mollis*, Silverweed *Potentilla anserine*, Meadowsweet *Filipendula ulmaria* and Horsetail *Equisetum* spp., indicating potentially wet grassland, particularly at the southern side near Horestown Stream. Similarly the eastern field was dominated by Cock's Foot, False Oat grass, Horsetail, Yorkshire Fog, Foxtail, Creeping Buttercup, Thistle, Plantains, Dock *Rumex* spp., Dandelion and vetch, with Horsetail and Silverweed dominant to the south.



Figure 3-2: Southern field looking north



Figure 3-3: Western field- looking east

**FW2 Depositing lowland river**

A watercourse (Horestown Stream) is located to the north of the field off Old Road, and separates this field from the two fields to the north. The water course was dry at time of the site visit, after almost three months of dry weather between March and May 2020 (Figure 3-4). Horestown Stream is a short watercourse, and its source starts 750m to the west of the western boundary of the site.



Figure 3-4: Dry watercourse to north of southern field

#### **FW4 Drainage Ditches**

A drainage ditch was located along the northern boundary of the western field. It was dry at the time of the 18 May 2020 site visit (Figure 3-5).

A drainage ditch c. 0.75m width ran in a north south direction along the eastern boundary of the north eastern field (Figure 3-6), separating the field from a neighbouring garden. The water was approx. 5cm deep at the time of the site visit (17 June 2020).



Figure 3-5: Drainage ditch at north-western boundary of western field



Figure 3-6: Drainage ditch on eastern boundary of north eastern field

### WS1 Scrub

Large areas of scrub occur throughout the site, most notably along the boundaries. A wide strip (approx. 15m) of Bramble divided the two fields at the north of the site, with some willow at the southern end near the Horestown Stream (Figure 3-7).



Figure 3-7: Scrub north of Horestown Stream

### WL1 Treelines

A number of tree lines occur within the site;

- Alder with an understory of Nettle *Urtica dioica*, Common Hogweed and Willowherb *Epilobium* spp. along a section of the western boundary of the southern field (Figure 3-8);
- A mixture of Sycamore *Acer pseudoplatanus* and willow *Salix* spp. along the northern boundary of the southern field, south of the watercourse (Figure 3-9);
- A treeline of Scot's Pine *Pinus sylvestris* in adjoining land to south of western field and watercourse;
- Willow and Hawthorn *Crataegus monogyna* along western and northern boundary of site. This becomes more sparse, and with the addition of Alder *Alnus glutinosa* and Elder *Sambucus nigra*



Figure 3-8: Treeline of Alder at west of southern field



Figure 3-9: Treeline of Sycamore and willow south of watercourse

### **WL1/WL2 Hedgerows/Treelines**

The north western field is bound by a hedgerow/treeline of Hawthorn, Elder and willow

### WS2 Immature woodland

A small area of immature willow and whitethorn was located to the north west of the southern field.

### BL3 Buildings and artificial structures

An abandoned bungalow with garage is located to the south west of the site (Figure 3-10). There are a number of temporary sheds/trailers behind the house along the western boundary of the southern field. Block walls are located at the south, east and west boundaries of the southern field.



Figure 3-10: Abandoned bungalow

## 3.3 Protected Flora and Fauna

### 3.3.1 Fauna

#### 3.3.1.1 Breeding Birds

The treeline and hedgerow habitats offer suitable nesting opportunities for nesting birds. These were not surveyed for during the site visit. There was/no evidence of nesting ground birds in the grassland areas.

#### 3.3.1.2 Mammals

Field signs of mammal activity were recorded as mammal trails through the grass, most likely fox. No signs of protected mammal species were recorded on the site visit. Small burrow holes were found in the grassland of the western field.



Figure 3-11: Mammal burrow

### 3.3.2 Invasive Non-native Species

No Invasive Non-native Species on the Third Schedule list of Non-native species (subject to restrictions under Regulations 49 and 50) were recorded on the site visit. One specimen of Himalayan Honeysuckle or Pheasant Bush *Leycesteria Formosa* was recorded in the western side garden of the house. The is classified as an invasive species of Medium Impact.

### 3.4 Waterbodies within the Vicinity of the Proposed Site

The proposed site lies within the Water Framework Directive (WFD) Nanny-Delvin Catchment and WFD Sub-catchment Palmerstown\_SC\_010 (EPA, 2020).

Horestown Stream runs through the site, dividing the north section from the south section. Horestown Stream flows in an easterly direction through the site and then bends in a south-west direction ending up at Rogerstown Estuary (Figure 3-12). Rush Stream is located approximately 350m north of the site, running along Brook Lane in an easterly direction and having its outfall at Rush North Beach. Palmerstown Stream is approximately 1.1km south-west of the site running in a north to south direction. Palmerstown Stream has its outfall at Rogerstown Estuary.

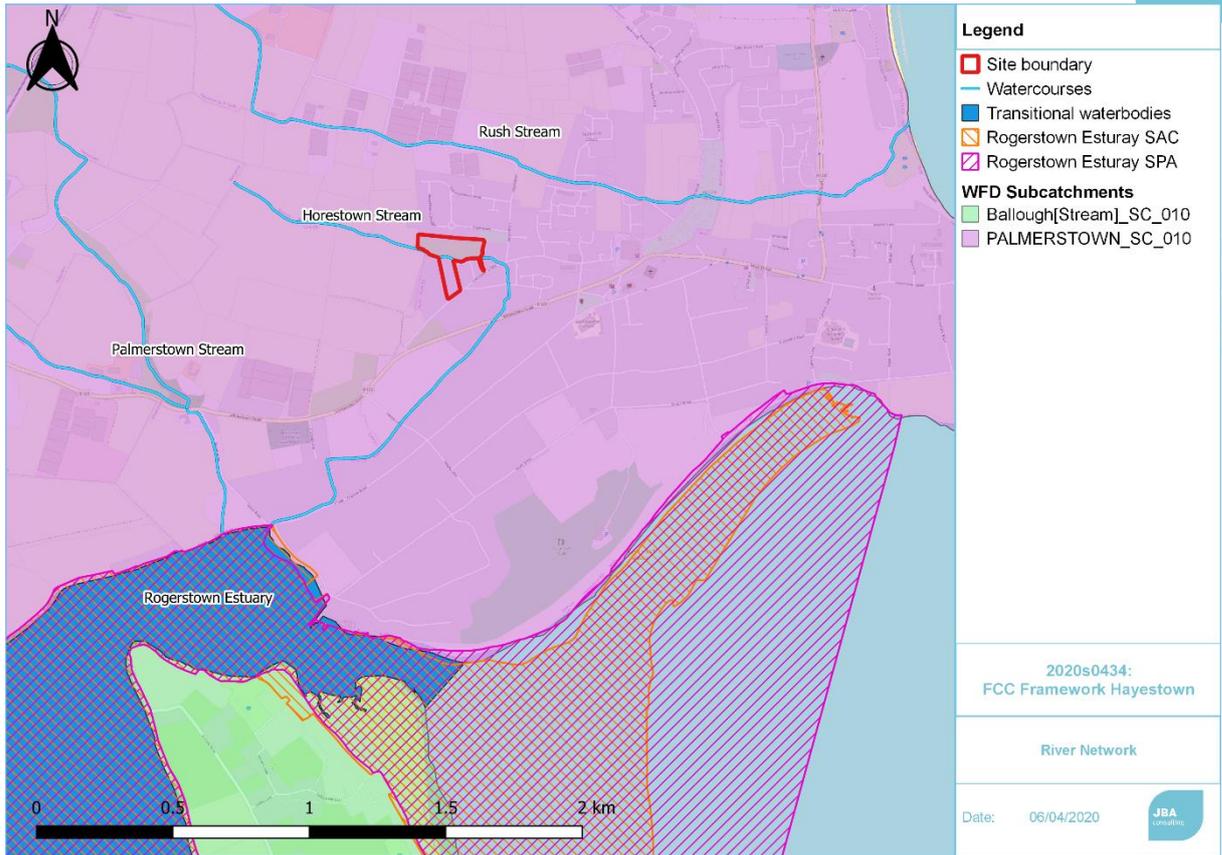


Figure 3-12: Waterbodies within the vicinity of the proposed site. (Source: EPA, 2020)

## 4 Natura 2000 Sites

The DEHLG (2009) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area.
- Any Natura 2000 sites within the likely zone of impact of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects.
- Any Natura 2000 sites that are more than 15km from the plan or project area, but may potentially be impacted upon, for example, through a hydrological connection.

As the scale of proposed works are considered of 'Project' status, only Natura 2000 sites within a 15km range of the proposed development were examined. The Natura 2000 sites within the range are listed in Table 4-1 below and their location are shown in Figure 4-1 in overleaf.

Table 4-1: Natura 2000 sites located within the 15km Zone of Influence (Zoi) of the proposed development.

Natura 2000 site	Site Code	Approximate direct distance from site
Rogerstown Estuary SAC	000208	1.1km
Rogerstown Estuary SPA	004015	1.1km
Rockabill to Dalkey Island SAC	003000	2.7km
Malahide Estuary SAC	000205	4.8km
Skerries Islands SPA	004122	5.2km
Malahide Estuary SPA	004025	5.6km
Rockabill SPA	004014	5.8km
Lambay Island SPA	004069	5.9km
Lambay Island SAC	000204	6.0km
Baldoyle Bay SAC	000199	11.4km
Baldoyle Bay SPA	004016	11.4km
Ireland's Eye SPA	002193	12.4km
Ireland's Eye SAC	004117	12.9km
North Bull Island SPA	004006	14.8km
North Dublin Bay SAC	000206	14.8km

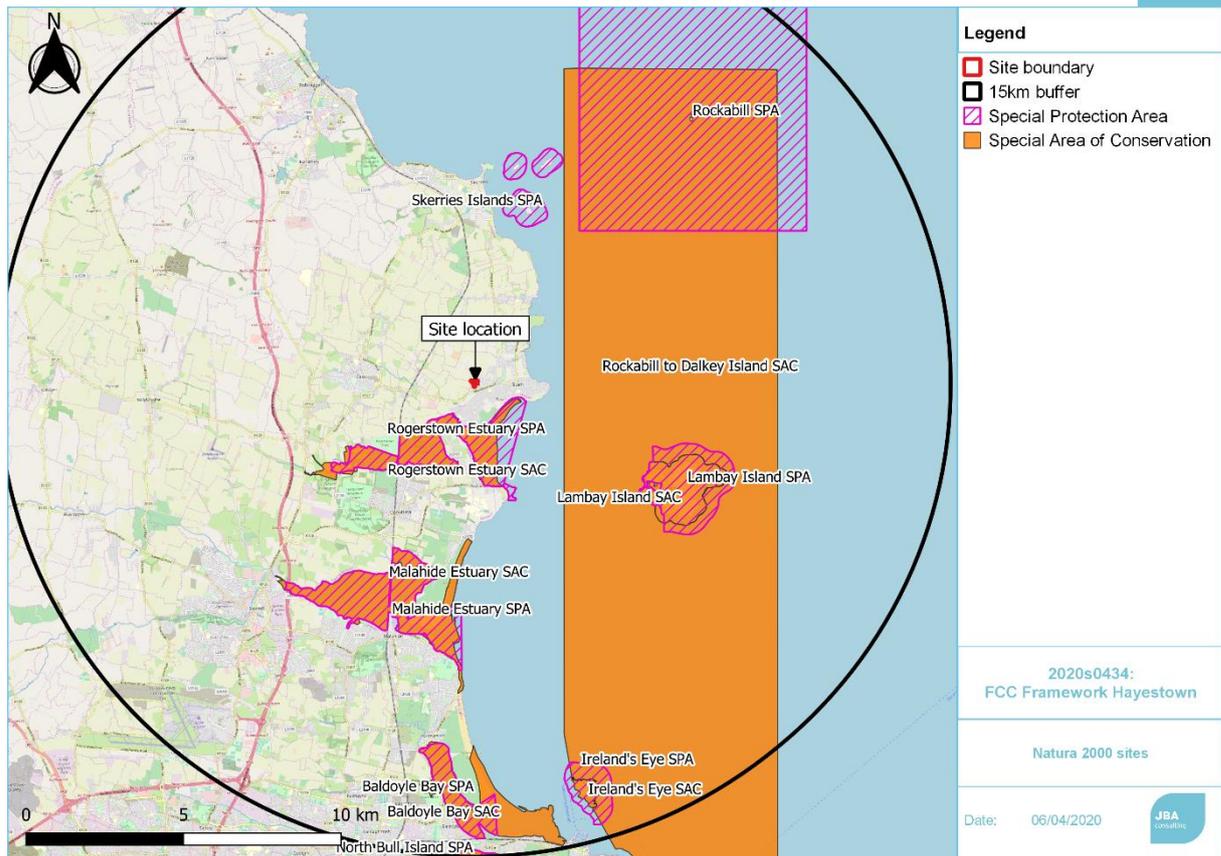


Figure 4-1: Natura 2000 sites and site location (Source: NPWS, 2020).

The five Natura 2000 sites that could potentially be impacted by the proposed development are:

- Rogerstown Estuary SAC (000208)
- Rogerstown Estuary SPA (004015)
- Rockabill to Dalkey Island SAC (003000)
- Lambay Island SPA (004069)
- Lambay Island SAC (000204)

The descriptions of these Natura 2000 sites are given in the sections below.

All other Natura 2000 sites were not anticipated to be impacted due to either distance or absence of pathways between the development site and the receiving environment.

#### 4.1 Rogerstown Estuary SAC (000208)

The site comprises a relatively small estuarine system in north County Dublin. It is a funnel shaped estuary, extending for about 6 km from east to west and up to 2 km at its widest. Has a wide salinity range, from near full seawater to near full fresh water. Estuary is bisected by a causeway and bridge which carries the Dublin-Belfast railway line. A typical eastern estuary with fairly extensive intertidal sand and mud flats. Quality is variable owing to pollution from a number of sources, especially a large landfill site which was built on the mudflats. The salt marshes which fringe the estuary are of moderate importance and quality and include both Atlantic and Mediterranean salt meadows. The site has three Red Data Book plant species (Hairy Violet *Viola hirta*, Meadow Barley *Hordeum secalinum* and Green-winged Orchid *Orchis morio*) and is of high importance for wintering waterfowl, with an internationally important population of *Branta bernicla horta* and nationally important populations of a further 16 species including *Pluvialis apricaria*.

(source: NPWS, 2019)

#### 4.1.1 Qualifying Interests

The conservation interests of Rogerstown Estuary SAC are listed below. These are species and habitats listed on Annex I / II of the E.U. Habitats Directive (\* = priority habitat; numbers in brackets are Natura 2000 codes) and further site-specific details are available in (NPWS, 2013a).

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) \* [2130]

#### 4.1.2 Site Vulnerability

The threats, pressures and activities that impact the site are listed in Table 4-2.

Table 4-2: Threats and pressures posed to Rogerstown Estuary SAC (NPWS, 2019)

Threat and pressure	Ranking and Location
Discharges	M, o
Golf course	M, o
Invasive non-native species	H, i
Dispersed habitation	M, o
Walking, horseriding and non-motorised vehicles	M, b
Nautical sports	M, l
Fertilisation	M, o
Bait digging / collection	M, l
Grazing	M, b
Erosion	H, i
Roads, motorways	M, o
Sea defence or coast protection works, tidal barrages	H, i
Reclamation of land from sea, estuary or marsh	H, l
Use of biocides, hormones and chemicals	H, o
Ranking: L (Low), M (Medium), H (High) Location: o (outside), i (inside)	

#### 4.2 Rogerstown Estuary SPA (004015)

Rogerstown Estuary is a typical eastern estuary with fairly extensive intertidal sand and mud flats. The site is of high importance for wintering waterfowl, with an internationally important population of *Branta bernicla hrota* that accounts for 5.9% of the national total. It supports nationally important populations of a further 15 species and notably *Calidris canutus* (8.6% of national total), *Tadorna tadorna* (5.3% of national total) and *Pluvialis squatarola* (4.5% of national total). It is an important and regular site for a range of autumn passage migrants, especially *Calidris minuta*, *Calidris ferruginea*, *Philomachus pugnax* and *Tringa ochropus*. *Sterna albifrons* has bred in the past but not recently. It includes populations of three Red Data Book plant species. Wintering birds are well monitored at the site.

Rogerstown Estuary is also a Ramsar Convention site, and part of Rogerstown Estuary SPA is designated as a Statutory Nature Reserve and a Wildfowl Sanctuary.

(Source: NPWS, 2014)

#### 4.2.1 Qualifying Interests

The conservation interests of Rogerstown Estuary SPA are listed below. These are species and habitats listed on Annex I / II of the E.U. Habitats Directive (numbers in brackets are Natura 2000 codes) and further site-specific details are available in the Conservation Objectives document (NPWS, 2013b).

- Greylag Goose (*Anser anser*) [A043]
- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
- Shelduck (*Tadorna tadorna*) [A048]
- Shoveler (*Anas clypeata*) [A056]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Ringed Plover (*Charadrius hiaticula*) [A137]
- Grey Plover (*Pluvialis squatarola*) [A141]
- Knot (*Calidris canutus*) [A143]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Redshank (*Tringa totanus*) [A162]
- Wetland and Waterbirds [A999]

#### 4.2.2 Site Vulnerability

The threats, pressures and activities that impact the site are listed in Table 4-3.

Table 4-3: Threats and pressures posed to Rogerstown Estuary SPA (NPWS, 2017a)

Threat and pressure	Ranking and Location
Nautical sports	M, i
Golf course	M, o
Grazing	M, i
Bait digging / collection	M, i
Landfill, land reclamation and drying out, general	H, o
Hunting	L, i
Fertilisation	H, o
Dispersed habitation	H, o
Grazing	M, o
Disposal of industrial waste	H, o
Dispersed habitation	M, o
Invasive non-native species	H, i
Ranking: L (Low), M (Medium), H (High)	
Location: o (outside), i (inside)	

#### 4.3 Rockabill to Dalkey Island SAC (003000)

The selected site forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length and encompassing a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. The area selected for designation represents a key habitat for the Annex II species - harbour porpoise, within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for the species. The selected site contains a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand and mud-banks and rocky reefs scoured by strong current flow. The site also contains two Annex II seal species – Harbour seal (*Phoca*

*vitulina vitulina*), Grey seal (*Halichoerus grypus*) for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin (*Tursiops truncatus*) has also occasionally been recorded in the area. Along the eastern seaboard the habitat type Reef is uncommon due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.

(Source: NPWS, 2017b)

#### 4.3.1 Qualifying Interests

The conservation interests of Rockabill to Dalkey Island SAC are listed below. These are species and habitats listed on Annex I / II of the E.U. Habitats Directive (\* = priority habitat; numbers in brackets are Natura 2000 codes) and further site-specific details are available in (NPWS, 2013c).

- Reefs [1170]
- *Phocoena phocoena* (Harbour Porpoise) [1351]

#### 4.3.2 Site Vulnerability

The threats, pressures and activities that impact the site are listed in Table 4-4.

Table 4-4: Threats and pressures posed to Rockabill to Dalkey Island SAC (NPWS, 2017b)

Threat and pressure	Ranking and Location
Shipping lanes	H, b
Professional active fishing	H, b
Removal of sediments (mud...)	L, o
Noise nuisance, noise pollution	H, b
Discharges	H, o
Utility and service lines	M, o
Siltation rate changes, dumping, depositing of dredged deposits	L, o
Ranking: L (Low), M (Medium), H (High) Location: o (outside), i (inside)	

#### 4.4 Lambay Island SPA (004069)

Lambay is one of the most important seabird colonies in Ireland, with 12 species breeding regularly. It supports internationally important populations of *Phalacrocorax carbo*, *Phalacrocorax aristotelis*, *Uria aalge* and *Alca torda*, and nationally important populations of *Fulmarus glacialis*, *Larus argentatus*, *Larus fuscus*, *Larus marinus* and *Rissa tridactyla*. Cliff habitat for nesting seabirds is very extensive and of high quality. Other notable breeding birds are *Haematopus ostralegus* (largest concentration in the region), *Tadorna tadorna* and *Falco peregrinus*. The island supports a nationally important wintering flock of *Anser anser* and a range of other wintering waterfowl, though in relatively low numbers. Lambay is an important breeding site for *Halichoerus grypus*.

(Source: NPWS, 2011)

#### 4.4.1 Qualifying Interests

The conservation interests of Lambay Island SPA are listed below. These are species and habitats listed on Annex I / II of the E.U. Habitats Directive (numbers in brackets are Natura 2000 codes) and further site-specific details are available in the Conservation Objectives (NPWS, 2020b).

- Fulmar (*Fulmarus glacialis*) [A009]
- Cormorant (*Phalacrocorax carbo*) [A017]

- Shag (*Phalacrocorax aristotelis*) [A018]
- Greylag Goose (*Anser anser*) [A043]
- Lesser Black-backed Gull (*Larus fuscus*) [A183]
- Herring Gull (*Larus argentatus*) [A184]
- Kittiwake (*Rissa tridactyla*) [A188]
- Guillemot (*Uria aalge*) [A199]
- Razorbill (*Alca torda*) [A200]
- Puffin (*Fratercula arctica*) [A204]

#### 4.4.2 Site Vulnerability

The threats, pressures and activities that impact the site are listed in Table 4-5.

Table 4-5: Threats and pressures posed to Lambay Island SPA (NPWS, 2018)

Threat and pressure	Ranking and Location
Mowing / cutting of grassland	M, i
Grazing	M, l
Nautical sports	M, o
Dispersed habitation	L, i
Shipping lanes	M, o
Hunting	L, i
Ranking: L (Low), M (Medium), H (High) Location: o (outside), i (inside)	

#### 4.5 Lambay Island SAC (000204)

Lambay is the largest and most isolated island on the east coast. Extensive heath formerly existed but this has been eliminated at the expense of improved pasture. Vegetated cliff is the most notable habitat – these are quite representative of eastern cliffs with diversity in height, slope and aspect. The cliffs hold internationally important populations of seabirds, especially *Uria aalge*. *Anser anser* winter in significant numbers. The island was the subject of an intensive natural history study in 1905-06, and again in the early 1990's. This site provides year-round haul-out habitat for the Annex II seal species *Halichoerus grypus* and *Phoca vitulina*, and includes regionally significant breeding and moulting sites. The foreshore surrounding the island holds examples of Reef habitat with typical biodiversity for the east coast.

(Source: NPWS, 2019b)

##### 4.5.1 Qualifying Interests

The conservation interests of Lambay Island SAC are listed below. These are species and habitats listed on Annex I / II of the E.U. Habitats Directive (\* = priority habitat; numbers in brackets are Natura 2000 codes) and further site-specific details are available in (NPWS, 2013d).

- Reefs [1170]
- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
- *Halichoerus grypus* (Grey Seal) [1364]
- *Phoca vitulina* (Harbour Seal) [1365]

#### 4.5.2 Site Vulnerability

The threats, pressures and activities that impact the site are listed in Table 4-6.

Table 4-6: Threats and pressures posed to Lambay Island SAC (NPWS, 2019b).

Threat and pressure	Ranking and Location
Nautical sports	M, o
Mowing / cutting of grassland	L, i
Grazing	H, l
Hunting	L, l
Industrial or commercial areas	M, o
Urbanised areas, human habitation	L, o
Leisure fishing	L, o
Ranking: L (Low), M (Medium), H (High) Location: o (outside), i (inside)	

## 5 Other Relevant Plans and Projects

### 5.1 Cumulative Effects

As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region that may induce cumulative impacts must also be considered at this stage.

The following projects or plans were identified as potential sources of cumulative impacts:

- Fingal Development Plan 2017-2023
- Kenure Rush Local Area Plan (2009-2015, extended to 2019)
- River Basin Management Plan for Ireland 2018-2021
- Planning Applications

#### 5.1.1 Fingal Development Plan 2017-2023

Fingal Development Plan 2017-2023 has been prepared in accordance with with the Planning and Development Act 2000. The plan sets out the overall strategy for planning and sustainable development in the county. Although the Natura Impact Statement for the plan states that there are some potential impacts, the overall conclusion is that there are not likely significant impact (Fingal County Council, 2016).

The development strategy for Rush is to expand the town centre as a commercial, retail, employment and service centre serving the expanding community. The plan also sets out the aim to densify the town and the to protect Rogerstown Estuary and its associated Natura 2000 sites (Fingal County Council, 2016).

#### 5.1.2 Kenure Rush Local Area Plan (2009-2015, extended to 2019)

Kenure Rush Local Area Plan (LAP) sets out the strategy for the development of a housing area extending north from the town (Fingal County Council, 2009). The development within this LAP proposes a wide range of residential density om 19units p. ha. at the lower end of the scale to 50 units per ha. at the higher end. The result will be approximately 1,000 residential units within the LAP. Local services are proposed, including doctor/dentist surgeries, pharmacy, as mall local supermarket, delicatessen, crèche, community resource meeting room, restaurant/café, public house and recreational facilities.

The LAP also provides for the Rush Relief Road running north /south through that part of the Plan lands located to the west of Park Road (Fingal County Council, 2009). A new street is also proposed in the form of an east-west “boulevard”, connecting Skerries Road to the Rush Relief Road.

The LAP states that no new residential development will take place until necessary waste water treatment infrastructure has been upgraded. Information on Irish Water’s projects states that the Rush Wastewater Collection Scheme has been completed and all wastewater generated in the town is transported to the Waste Water Treatment Plant (WWTP) at Portrane (Irish Water, 2020). The new sewer pipes and pumping stations have all been sized to accommodate an increase in the local population, facilitating future growth in the area.

An Appropriate Assessment has been carried out on the LAP as it was concluded that potential significant impact could arise from increased disturbance by an increase in number of people using the dunes as amenity area (Natura Environmental Consultants, 2008). As the potential impacts on the Rogerstown Estuary will come from a number of sources, not only Rush. Fingal Co. Co. proposes to develop a Management Plan for the Outer Rogerstown Estuary that will address all the existing and potential threats on the habitats and species of conservation concern in Rogerstown Estuary. A number of mitigation measures will be considered, that will reduce the existing and potential future negative impacts on the coastal dune systems and potential increased disturbance impacts on birds in the estuary. Fingal County Council are committed to implement appropriate mitigation measures to minimise the impacts. Provided the measures are implemented, there will be no significant negative impact on the integrity of the Natura 2000 site.

### 5.1.3 River Basin Management Plan for Ireland 2018-2021

The River Basin Management Plan (RBMP) for Ireland 2018-2021 sets out the actions that Ireland will take to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2021 (DoHPLG, 2018a). Changes from previous River Basin Management Plans is that all River Basin Districts are merged as one national River Basin District. The Plan provides a more coordinated framework for improving the quality of our waters — to protect public health, the environment, water amenities and to sustain water-intensive industries, including agri-food and tourism, particularly in rural Ireland.

Rogerstown Esturay is included amongst 190 prioritised areas for action where collaboration between the Government and the dairy industry aims to promote best agricultural practice in order to address existing environmental pressures (DoHPLG, 2018a). this includes the WFD River Sub Basins feeding into the estuary, The Horestown Stream and Palmerstown Stream are included in Palmerstown\_010 WFD River Sub Basin.

The criteria for these prioritised areas for action is that they are identified as *At Risk* of not achieving their objectives or *Under Review* (DoHPLG, 2018b). Rogerstown Esturay is At Risk and has the WFD status Bad (EPA, 2020). Both Horestown Stream and Palmerstown Stream are Under Review and neither of them have been assigned a WFD status.

### 5.1.4 Other Projects

There are several smaller housing developments in the vicinity of the proposed project. Larger development planning applications in the near vicinity from the last three years that have been granted permission are listed below. Applications which are not retention applications, home extensions and/or internal alterations are considered.

<b>Planning Application Reference</b>	F19A/0320
<b>Development address</b>	Site on the South side of Brook Lane, Hayestown, Rush, Co Dublin
<b>Description:</b>	Permission for alterations to already approved development Reg. Ref. F17A/0739, comprising: (a) Minor alterations to house types and 5 no. additional houses as follows: (i) 2 no.4 bedroom 2 storey semi-detached houses in lieu of 4 no. 4 bedroom 2storey semi-detached houses; (ii) 38 no. 3 bedroom 2 storey semi-detached houses in lieu of 31 no. semi-detached, end & mid terrace houses (from 35 to 40 dwelling units in total); (b) New gravity foul main to connect into existing manhole to the east of the site and adjacent to Seabrook at Brook Lane and omission of pumping station, (c) Associated alterations to internal road layout and relocation and reduction in public open space; (d) All associated site works; all on this 1.292ha site on the south side of Brook Lane Hayestown Rush Co Dublin (opposite Daffodil Stores glass houses)
<b>Final Decision on Application</b>	Grant permission with conditions
<b>Decision Date</b>	19-Dec-2019
<b>Planning Application Reference</b>	F17A/0218
<b>Development address</b>	Rush National School, Channel Road, Rush, Co. Dublin.
<b>Description:</b>	A new free-standing prefabricated single classroom building.
<b>Final Decision on Application</b>	Grant permission with conditions
<b>Decision Date</b>	07-Jun-2017
<b>Planning Application Reference</b>	F13A/0054/E1
<b>Development address</b>	Whitestown Road, Rush, Co Dublin

**Description:** The erection of two agricultural sheds (558 sq.m. each), an infill lean-to shed (143 sq.m.) attached to existing shed and all associated site development works at Whitestown Road, west of St Maurs Church and Grave Yard. The development will also include the relocation of a proposed house, garage and waste water treatment system granted permission under Reg. Ref. F07A/0501 and F09A/0150.

<b>Final Decision on Application</b>	Grant extension of duration of permission
<b>Decision Date</b>	08-Nov-2017
<b>Planning Application Reference</b>	F17A/0533
<b>Development address</b>	Whitestown Road, Rush, Co. Dublin
<b>Description:</b> Construction of a previously approved wastewater treatment plant and percolation area (Reg. Ref. F13A/0054, F09A/0150 & F07A/0501) in alternative location to south of existing detached house and garage.	
<b>Final Decision on Application</b>	Grant permission with conditions
<b>Decision Date</b>	25-Oct-2017
<b>Planning Application Reference</b>	F17A/0391
<b>Development address</b>	Lands north of Old Road, Rush, Co Dublin
<b>Description:</b> Permission for A) demolition of existing 3 bedroom bungalow, adjoining garage and outbuildings. B) discontinue use of 2 no. existing vehicular site entrances and form 1 new site entrance off Old Road. C) construct new housing development consisting of 1 x 4 bedroom detached dormer bungalow, 3 x3 bedroom detached dormer bungalows, 2 x 2 bedroom semi-detached bungalows and 14 x 3 bedroom two storey semi-detached dwellings (20 units in total), new footpaths and access road (3 x dormer bungalows to front on to and to have vehicular access directly off Old Road), landscaped open space, screen walls/boundary and all site development works on site (0.748 ha) at Old Road (approx. 280m from its junction with Whitestown Road), Rush. Co. Dublin.	
<b>Final Decision on Application</b>	Grant permission with conditions
<b>Decision Date</b>	18-Dec-2017
<b>Planning Application Reference</b>	F18A/0256
<b>Development address</b>	Bounded by Sea Brook residential estate to the west, Brook Lane to the south, undeveloped lands & Woodland Park to the north & east, within the townlands of Rush, Rush, Co Dublin
<b>Description:</b> (Comprising amendments to a portion of the permitted residential development (under Fingal Reg. Ref. F15A/0294; F16A/0221 & An Bord Pleanála Ref: PL06F.247032)). The development will consist of amendments to the approved 74 no. 2 storey 3 and 4 bedroom dwellings, (relating to housetypes and mix on C. 2.1 hectares of the overall permitted site) to now comprise 86 no. dwellings as follows: (36 no. 2 bedroom terraced dwellings; 19 no 3 bedroom terraced dwellings; 22 no. 3 bedroom semi-detached dwellings; 8 no. semi-detached 4 bedroom dwellings; 1 no detached 4 bedroom dwelling [all houses 2 storeys]) along with associated alterations to car parking/bin storage and landscaping; resulting in an increase from 129 no. dwellings to 141 no. dwellings on the overall wider site of c. hectares; all associated site development and landscape works.	
<b>Final Decision on Application</b>	Grant permission with conditions
<b>Decision Date</b>	06-Jul-2018
<b>Planning Application Reference</b>	F12A/0225/E1
<b>Development address</b>	10, 12, 14a, 14 (a protected structure), 16, 18 and 20 Upper Main Street, 44A and 44B Bollum Lane, Rush, Co Dublin

**Description:** Permission for development at this site at no. 10, 12, 14a and 14 (which is a protected structure), 16, 18 and 20 Upper Main Street, as well as nos. 44A and 44B Bollum Lane, and their associated lands in Rush, Co Dublin. The development will consist of a mixed-use commercial and residential development of 3,437 sq.m. that will include demolition of the properties at nos. 10, 12, 14a and 16 Upper Main Street; as well as that of 44A and 44B Bollum Lane; and the construction of the following elements: Block 1 (1,689 sq.m.) to include single storey supermarket (discount foodstore - unit 1) measuring 1,452 sq.m. gross (990 sq.m. net) including a subsidiary licensed area which will be used for the display and sale of intoxicating liquor, including wines, beers and spirits for consumption off the premises; as well as 2 no. single sided internally illuminated signs (total 6.9 sq.m.) mounted on the north (5.1 sq.m.) and west (1.8sq.m.) elevation of the anchor. A two storey commercial property fronting Upper Main Street (Unit 2 - 237 sq.m.) including post office retail unit (124 sq.m.) with signage at ground floor (7.5 sq.m.) and office use (113 sq.m.) at first floor level. Block 2 (936 sq.m.) to include raising ridge height of nos. 18 and 20 Upper Main Street and change of use of the 2 no. two storey residential dwellings with new and internal modifications to create a new commercial block with two storey extension to rear to create 5 no. retail units (Unit3 - 68 sq.m., Unit 4 - 133 sq.m. Unit 5 - 149 sq.m., Unit 6 - 90 sq.m. and Unit 7 - 62 sq.m.) at ground floor level, with a gymnasium (365 sq.m.) at first floor level plus ancillary space. Block 3 (264 sq.m.) to include a two storey detached restaurant. Block 4 (428 sq.m.) to include construction of a terrace of 4 no. two storey three bedroom dwellings. Change of use, repair and extension (64 sq.m.) of the single storey thatched cottage (34 sq.m.) at 14 Upper Main Street (which is a protected structure) to a public exhibition hall (98 sq.m.) with external information advertising screen (4.3 sq.m.) on its eastern elevation fronting the public plaza and new signage to northern elevation of extension fronting Upper Main Street (2 sq.m.). In addition the development will consist of an ESB substation (22 sq.m.) and car parking for 129 cars and 36 no. bicycle spaces all at surface level; 1 no. 4.1m high double sided projecting internally illuminated sign (5.1 sq.m.) at the entrance off Upper Main Street; as well as all other associated signage, on site waste water treatment plant, plant, landscaping, including new public plaza to Upper Main Street, and site development works. Vehicular and pedestrian access to the commercial development is off Upper Main Street with a second pedestrian access off Bollum Lane. Vehicular access to the four no. residential units will be via a laneway off Convent Lane with pedestrian access to these units also being off this and via Cooper's Bank.

<b>Final Decision on Application</b>	Grant extension of duration of permission
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<b>Decision Date</b>	13-Nov-2017
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<b>Planning Application Reference</b>	F19A/0094
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<b>Development address</b>	St Joseph's Secondary School, Convent Lane, Rush, Co Dublin
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**Description:** For demolition of an existing single storey studio building (floor area - 68sq/m) and for construction of two new temporary, single storey, detached, prefabricated buildings containing (building A) two x science laboratories and (building B) one x technical graphics/DCG classroom and one x general classroom (total floor area of both new buildings - 349 sq/m) plus associated site development works.

<b>Final Decision on Application</b>	Grant permission with condition
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<b>Decision Date</b>	15-Apr-2019
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<b>Planning Application Reference</b>	F20A/0015
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<b>Development address</b>	Rear of St Judes, Old Road, Rush, Co Dublin
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**Description:** Permission for a storey and a half type dwelling to rear of St Jude's Old Road Rush Co Dublin. It is proposed to access the development via the existing vehicular access from the public road. The development will include the ancillary site development works.

<b>Final Decision on Application</b>	Grant permission with condition
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<b>Decision Date</b>	15-Jul-2020
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### 5.1.5 Summary

Site previously granted planning permission under reference F17A/0391 is included within the proposed development and is as such not considered for cumulative assessment.

The potential for cumulative impact of the plans and projects identified above are assessed Screening section below in combination with the currently proposed project.

## 6 Screening Assessment

### 6.1 Introduction

This screening exercise will focus on assessing the likely adverse effects of the project on the Natura 2000 site identified in Section 4 above.

This section identifies the potential impacts which may arise as result of the proposed project. It then goes on to identify how these impacts could potentially impact on Natura 2000 sites listed in Table 4-1. The significance of potential impacts is also assessed, with any potential in-combination effects also identified.

### 6.2 Assessment Criteria

#### 6.2.1 Description of the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites

Potential adverse impacts that could cause a significant effect on the qualifying interests of the Natura 2000 sites, during the construction and operational phases of the project, will impact on the sites via surface water pathways, groundwater pathways and land and air pathways. Surface water pathways can impact on surface water quality and surface water dependent habitat quality. Groundwater pathways can impact on groundwater quality and quality of groundwater dependent habitats. Land and air pathways can impact by release or discharges of sediment or chemicals to surface or groundwater.

The proposed project is not anticipated to impact on the qualifying interests of any of the identified SACs or SPAs due to the absence of pathways between any potential source of impact and receiving environment in the case of the Natura 2000 sites. The rationale for excluding impacts via the main pathways is given in more detail in the following section.

#### 6.2.2 Surface Water Pathways

The proposed site lies within Palmerstown\_SC\_010 sub-catchment which feeds in to Rogerstown Estuary and the Irish Sea. Horestown Stream passes through the proposed site and has its outfall 1.6km downstream at Rogerstown Estuary, hence there is a surface water pathway between the proposed site and Rogerstown Estuary SAC and SPA. Given that the water from Rogerstown Estuary feeds into the Irish Sea there is also a surface water pathway with Rockabill to Dalkey Island SAC, Lambay Island SAC and Lambay Island SPA.

**During construction**, works will entail excavation of topsoil and subsoil within the construction site boundary and the construction of a new vehicular and pedestrian crossing of Horestown Stream. Major works will not take place within 10m of Horestown Stream except for the proposed road crossing, which is a pre-cast structure. This will allow the natural stream bed to remain intact and maintaining the existing hydraulic characteristics of the watercourse. The proposed structure of the bridge will comprise a 3-sided "bottomless" box culvert with precast concrete footings. Precast concrete box culverts are important design features for maintaining essential connectivity for aquatic life along the course of a waterbody, and provide the best solution for maintaining water body status in WFD terms and overall ecological quality.

Runoff during the construction period could potentially bring an increased sediment load to the watercourse and potentially to Rogerstown Estuary SAC and SPA. However, the best practice methodology in place for the proposed work and the pre-cast nature of the crossing will ensure minimal risk to the downstream SAC/ SPA. It is considered that the extent and duration of the work will mean that risk of significant stream pollution and sediment delivery to the downstream Natura sites during the Construction phase is unlikely

Therefore, given the small scale of the project and the methods proposed, the proposed development is not anticipated to have a significant impact on any of the QIs of Rogerstown Estuary SAC and SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC and Lambay Island SPA.

**During operation**, foul water is proposed to be connected to the existing foul sewer system (a pre-connection enquiry has been submitted to Irish Water on 14 July 2020) and being treated at Portrane/Donabate WWTP and thereafter discharged into the Irish Sea. The sewer system and pumping stations at Rush has recently been upgraded in order to allow all foul water to be treated at Portrane/Donabate WWTP (Irish Water, 2020). The upgrade also allows for an increased population in

the town. The Annual Environmental Report for Portrane/Donabate WWTP 2017 states that the final effluent was compliant with the Emission Limit Values in 2017 (EPA, 2018). Further, the report states that the discharge from the WWTP does not have an observable impact on the WFD status or water quality status.

No foul water will be discharged in to Rogerstown Esturay, thus no impact is anticipated on Rogerstown Estuary SAC. Given that the WWTP is compliant with the Emission Limit Values and does not have an observable impact on water quality, no impact is anticipated via surface water pathways on Rockabill to Dalkey Island SAC, Lambay Island SAC and Lambay Island SPA. Neither is any cumulative impact anticipated on the Natura 2000 sites.

Surface water from the site will be collected via swale, tree pits and rain gardens to a detention basin and detention system. This will allow for natural treatment to remove pollutants and suspended solids as water percolate through a minimum of 600mm soil in swale / tree pits and the detention basin is also grassed. The effectiveness of these SuDS components has been analysed following criteria set out in Chapter 26 of CIRIA C753 The SuDS Manual. The total pollution mitigation indices are greater than the risk indices and the SuDS components are deemed to provide a satisfying pollution prevention. Further, the attenuation systems are designed to cater for the 1:100-year outflow from site, including a 20% factor for climate change.

Therefore, given the effectiveness of the proposed SuDS it is not anticipated that the proposed project will have a significant impact on Rogerstown Estuary SAC and SPA during the operation phase. Neither is any cumulative impact anticipated these same Natura 2000 sites.

### 6.2.3 Groundwater

The proposed site is located within Swords groundwater body (European code: IE\_EA\_G\_011) where the bedrock is conglomerate limestone and the subsoil is predominantly made up of limestone till and some area in the south is man made (EPA, 2020). The aquifer vulnerability of the site is low (Figure 6-1) and the bedrock is a locally important aquifer and Moderately Productive only in local zones. The sub-soil permeability is low and most of the area is poorly drained with some areas of well drained soil.

Given the conditions at the site and the small scale of the project, with maximum excavations of 2.5 m depth, impact on groundwater is not anticipated on Rogerstown Estuary SAC, Rogerstown Estuary SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC and Lambay Island SPA. Neither is any cumulative impact anticipated on the Natura 2000 sites.

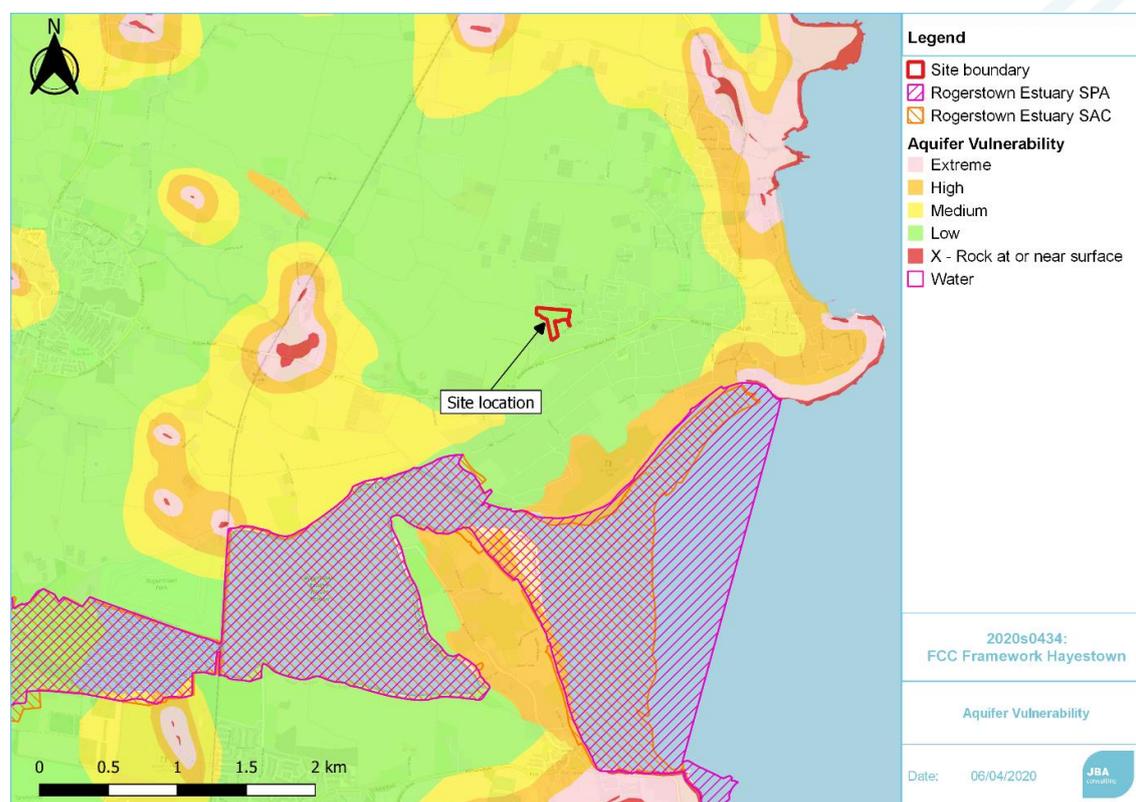


Figure 6-1: Aquifer vulnerability of proposed site and nearby Natura 2000 sites.

#### 6.2.4 Land and Air

##### Land

The proposed project will not impact on any supporting habitat to the QIs of Rogerstown SAC via land pathways.

The proposed project could potentially cause disturbance to wintering birds which are QIs of Rogerstown Estuary SPA. However, given the small scale of the project, the limited time of construction (16 months) and it is not directly adjacent to the estuary, it is not anticipated to impact on any QIs of Rogerstown Estuary SPA.

Given the distance to Rockabill to Dalkey Island SAC, Lambay Island SAC and Lambay Island SPA from the proposed site, impact via land pathways are not anticipated. Neither is any cumulative impact anticipated on the Natura 2000 sites.

##### Air

Dust release and vehicle emissions can travel considerable distances and could potentially affect wintering birds for which Rogerstown Estuary SPA is designated.

The distance and direction of travel is dependent upon wind speed and direction. The prevailing wind in the area is blowing from a west-south-west direction (i.e. blowing in a east-north-east direction) (based on measurements carried out between 2000-2020 at Dublin Airport (Windfinder.com, 2020)). As Rogertown Estuary SPA is located to the south south-east, this means that on average winds will not blow in the direction of the SPA. The immediate urban setting of the proposed development set in a wider rural environment provides barriers towards the SPA, such as buildings and treelines, which will prevent further dispersal of particles.

There will be an increase in local traffic attending the site during construction, resulting in an increase in NOx emissions, however vehicular emissions are not anticipated to significantly impact the QIs of Rogerstown Estuary SAC or SPA due to distance between proposed works and Natura 2000 sites and the sensitivities of the QI of these sites.

Given the distance to Rockabill to Dalkey Island SAC, Lambay Island SAC and Lambay Island SPA from the proposed site and the sensitivities of the QIs of these sites, impact via air pathways are not anticipated. Neither is any cumulative impact anticipated on the Natura 2000 sites.

#### 6.2.5 Description of likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 sites

Project Elements	Comment
Size and scale	<p>The development will include 53 new dwellings in a mix of types and sizes as advised by Fingal County Council Housing Department in the following numbers:</p> <ul style="list-style-type: none"> <li>• 45 No. of 3-bedroom units</li> <li>• 17 No. of 2-bedroom units</li> </ul> <p>Access to the south will be via Old Road.</p> <p>Mains water and Foul water services will connect to the existing sewer network (subject to application to Irish Water). Surface water management will use a SuDS approach with water being collected to detention basin/system via swales and rain gardens/tree pits where the water will be treated by natural means before controlled discharge (Greenfield runoff rate) to local streams.</p>
Land-take	There will be no land-take from any of the Natura 2000 sites.
Distance from Natura 2000 site	The Natura 2000 sites of closest proximity to the proposed site are Rogerstown Estuary SAC (1.1km) and Rogerstown Estuary SPA (1.1km).

or key features of the site	Rockabill to Dalkey Island SAC is located 2.7km away and Lambay Island SPA/SAC are 5.9km and 6.0km away respectively.
Resource requirements (water abstraction etc.)	There will be no water abstraction.
Emissions (disposal to land, water or air)	<p><i>Temporary impacts:</i></p> <p><b>Water</b></p> <p>Several potential pollutants will be utilised at the site, including diesel and engine/hydraulic oils. These could potentially leak or spill. After heavy rain these could end up in the Horestown Stream leading to the Rogerstown Estuary SAC and SPA. However, major works will not take place within 10m of Horestown Stream except for the proposed bridge crossing the stream. The proposed structure of the bridge will comprise a 3-sided "bottomless" box culvert with precast concrete footings. This will minimise the extent and duration of the work and minimise the potential of concrete impact.</p> <p><b>Soil</b></p> <p>Excavations at the site will produce loose top and sub soil. After heavy rain this could enter the surface water drainage system and increase sediment delivery to the Horestown Stream and on to Rogerstown Estuary SAC and SPA. However, major works will not take place within 10m of Horestown Stream except for the proposed bridge crossing the stream. he proposed structure of the bridge will comprise a 3-sided "bottomless" box culvert with precast concrete footings. This will minimise the extent and duration of the work and minimise the potential of impact.</p> <p><i>Permanent impacts:</i></p> <p>Surface water will be naturally pre-treated as it passes through the filter strips, tree pits and detention basins to remove pollutants and suspended solids before being discharged to Horestown Stream. The design of the SuDS components proposed for the site follows Chapter 26 of CIRIA C753 The SuDS Manual. They are assessed to provide efficient pollution prevention. Further, the attenuation systems are designed to cater for the 1:100-year outflow from site, including a 20% factor for climate change. As such, no permanent impacts are anticipated due to surface water on any of the Natura 2000 sites.</p> <p>Foul water will be connected to the existing foul sewer system and being treated at Portrane/Donabate WWTP. The sewer system in Rush has recently been upgraded to allow for an increase in population and the WWTP is working within its capacity. Therefore, no permanent impacts are anticipated due to foul water on any of the Natura 2000 sites.</p>
Excavation requirements	<p>The following excavation depths are envisaged:</p> <ul style="list-style-type: none"> <li>- Initial site strip under pavements/building of up to 500mm approximately to remove topsoil and any unsuitable material.</li> <li>- Excavations of up to 1.5m approximately below floor levels of the dwellings for foundation strip footings.</li> <li>- Excavations of up to approximately 2.5m below ground level (maximum) for drainage and utilities (refer to our drainage drawings for invert levels of pipework).</li> <li>- Excavations for the two proposed detention basins 0.75m and 1.25m depth respectively.</li> </ul>
Transportation requirements	<p><i>Temporary impacts:</i></p> <p>Levels of traffic to the site during the construction phase will increase traffic to the area, however this will be temporary in nature. All access to the site will be on pre-existing roads and transportation requirements will not affect</p>

	<p>any of the Natura 2000 sites.</p> <p><i>Permanent impacts:</i></p> <p>Traffic to and from the proposed project will be on pre-existing roads. Given the distance to the Natura 2000 sites and the size and scale of the proposed project, transportation requirements are not anticipated to affect any of the Natura 2000 sites.</p>
Duration of construction, operation, decommissioning etc.	<p>The duration of the construction is expected to be 16 months, from mid May 2021 to late September 2022.</p> <p>The operation is expected to be permanent.</p>
Other	None

#### 6.2.6 Description of likely changes to the Natura 2000 sites

Potential Impact	Comments
Reduction of habitat area	There will be no reduction in habitat area.
Disturbance to key species	<p><i>Temporary Impacts:</i></p> <p>The construction works will temporarily increase the noise level and disturbance locally. However, no significant impacts are anticipated to key species given scale and temporary nature of the construction phase and distance from the Natura 2000 sites.</p> <p><i>Permanent Impacts:</i></p> <p>No disturbance to key species is anticipated during operation of the project.</p>
Habitat or species fragmentation	No habitat or species fragmentation is likely as the project poses no restrictions to habitats or species of the Natura 2000 sites.
Reduction in species density	None anticipated.
Changes in key indicators of conservation value (water quality etc.)	<p><i>Temporary impacts on water quality:</i></p> <p>Given the small scale and temporary nature of the works, no impact on water quality is anticipated.</p> <p><i>Permanent impacts on water quality:</i></p> <p>The proposed site has a site-specific drainage plan (Appendix B). The foul water is treated at Portrane/Donabate WWTP which is compliant with the Emission Limit Values. The operational phase is not anticipated to have a significant impact on water quality.</p>
Climate change	N/A

#### 6.2.7 Description of likely impacts on the Natura 2000 sites as a whole

Potential Impact	Comments
Interference with the key relationships that define the structure of the site	None.
Interference with key relationships that define the function of the site	None.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Potential Impact	Indicators
Loss (Estimated percentage of lost area of habitat)	There will be no loss of area from any of the Natura 2000 sites.
Fragmentation	None anticipated.
Disruption & disturbance	None anticipated.
Change to key elements of the site (e.g. water quality etc.)	None anticipated. In addition, the proposed works will follow best practice guidelines during the construction phase. Site-specific drainage plans will be in situ during the operation of the project (Appendix B).

**6.2.8 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is unknown**

Following initial screening, and based upon best scientific judgement it is concluded that there will be no significant impacts on the following Natura 2000 sites:

- Rogerstown Estuary SAC
- Rogerstown Estuary SPA
- Rockabill to Dalkey Island SAC
- Lambay Island SPA
- Lambay Island SAC

**6.3 Concluding Statement**

No likely significant impact on the five NATURA 2000 sites considered in the scope of this assessment, are expected.

If any changes occur in the design of these works, a new Screening for Appropriate Assessment is required.

# Appendices

## A Site Layout Plan









# C Habitat Map



## References

DoEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities., Department of the Environment, Heritage and Local Government, available: <http://www.wicklow.ie/sites/default/files/Manager's%20report%20on%20submissions%20to%20the%20Proposed%20Amendments.pdf> [accessed 12 Jan 2017].

DoHPLG (2018a) 'River Basin Management Plan for Ireland 2018-2021', available: [https://www.housing.gov.ie/sites/default/files/publications/files/rbmp\\_report\\_english\\_web\\_version\\_final\\_0.pdf](https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_report_english_web_version_final_0.pdf) [accessed 22 Jan 2019].

DoHPLG (2018b) Areas for Action for the River Basin Management Plan for Ireland 2018 - 2021 [online], Local Authority Waters Programme, available: <http://watersandcommunities.ie/areas-action-river-basin-management-plan-ireland-2018-2021/> [accessed 24 Jan 2019].

EPA (2018) Annual Environmental Report 2017 - Portrane/Donabate D0114-01, available: [http://www.epa.ie/licences/lic\\_eDMS/090151b28066fdb5.pdf](http://www.epa.ie/licences/lic_eDMS/090151b28066fdb5.pdf) [accessed 15 Jul 2020].

EPA (2020) EPA Maps [online], Next Generation EPA Maps, available: <https://gis.epa.ie/EPAMaps/> [accessed 16 Jan 2020].

European Commission (Ed.) (2000) Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities: Luxembourg.

European Commission (2007) 'Guidance document on Article 6 (4) of the "Habitats Directive" 92/43/EEC - Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission.'

European Commission, Directorate-General for the Environment, Oxford Brookes University, Impacts Assessment Unit (Eds.) (2002) 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, EUR-OP: Luxembourg.

Fingal County Council (2009) 'Kenure Rush Local Area Plan (2009-2015, extended to 2019)', available: <https://www.fingal.ie/sites/default/files/2019-03/Rush%20Kenure%20LAP%20Document.pdf> [accessed 15 Jul 2020].

Fingal County Council (2016) 'Fingal Development Plan 2017-2023', available: <http://www.fingal.ie/planning-and-buildings/development-plans-and-consultations/fingaldevelopmentplan2017-2023/> [accessed 16 Nov 2018].

Fossitt, J.A. (2000) A Guide to Habitats in Ireland, Heritage Council of Ireland series, Heritage Council/Chomhairle Oidhreachta: Kilkenny.

Irish Water (2020) Rush Town Wastewater Collection Scheme [online], Irish Water, available: <https://www.water.ie/projects-plans/rush-town-wwcs/> [accessed 15 Jul 2020].

myplan.ie (2020) Myplan.ie [online], Myplan.ie - Department of Housing, Planning & Local Government, available: <https://viewer.myplan.ie/> [accessed 27 Aug 2020].

Natura Environmental Consultants (2008) Appropriate Assessment - Proposed Kenure Rush Local Area Plan, available: <https://www.fingal.ie/sites/default/files/2019-03/Rush%20Kenure%20LAP%20Appropriate%20Assessment.pdf> [accessed 15 Jul 2020].

NPWS (2011) 'Site Synopsis - Lambay Island SPA 004069', available: <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004069.pdf> [accessed 15 Jul 2020].

NPWS (2013a) 'Conservation Objectives - Rogerstown Estuary SAC 000208', available: [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000208.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000208.pdf) [accessed 15 Jul 2020].

NPWS (2013b) 'Conservation Objectives - Rogerstown Estuary SPA 004015', available: [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004015.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004015.pdf) [accessed 15 Jul 2020].

NPWS (2013c) 'Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1.', available: [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO003000.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO003000.pdf) [accessed 19 Jun 2019].

NPWS (2013d) 'Conservation Objectives - Lambay Island SAC 000204', available: [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000204.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000204.pdf) [accessed 15 Jul 2020].

NPWS (2014) 'Site Synopsis - Rogerstown Estuary SPA 004015', available: <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004015.pdf> [accessed 15 Jul 2020].

NPWS (2017a) 'Natura 2000 - Standard Data Form: Rogerstown Estuary SPA', available: <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004015.pdf> [accessed 18 Nov 2019].

NPWS (2017b) 'Natura 2000 standard data form: Rockabill to Dalkey Island SAC 003000', available: <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF003000.pdf> [accessed 19 Jun 2019].

NPWS (2018) 'Natura 2000 Standard Data Form - Lambay Island SPA 004069', available: <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004069.pdf> [accessed 15 Jul 2020].

NPWS (2019a) 'Natura 2000 Standard Data Form - Rogerstown Estuary SAC 000208', available: <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000208.pdf> [accessed 15 Jul 2020].

NPWS (2019b) 'Natura 2000 Standard Data Form - Lambay Island SAC 000204', available: <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000204.pdf> [accessed 15 Jul 2020].

NPWS (2020a) Habitat and Species Data [online], National Parks & Wildlife Service, available: <https://www.npws.ie/maps-and-data/habitat-and-species-data> [accessed 6 Sep 2019].

NPWS (2020b) 'Conservation Objectives - Lambay Island SPA 004069', available: [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004069.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004069.pdf) [accessed 15 Jul 2020].

Windfinder.com (2020) Windfinder - Wind, Wave & Weather Reports, Forecasts & Statistics Worldwide [online], Windfinder.com, available: <https://www.windfinder.com> [accessed 15 Jul 2020].



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