

APPROPRIATE ASSESSMENT SCREENING REPORT

FOR

PROPOSED WAREHOUSE DEVELOPMENT

AT

KINGSWOOD ROAD, CITYWEST BUSINESS PARK. **DUBLIN 24**

ON BEHALF OF

Rockface Developments Ltd.

Prepared by Enviroguide Consulting

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1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Rockface Developments Ltd. to undertake a screening for Appropriate Assessment (AA) in relation to the Proposed Development at Kingswood Road, Citywest Business Park, Dublin 24. This report contains information to enable the Competent Authority to undertake Stage 1 Appropriate Assessment screening in respect of the Proposed Development.

1.2 Legislative Background

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs). SACs and SPAs are collectively known as Natura 2000 or European Sites. It is the responsibility of each member state to designate SPAs and SACs. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.

An 'Appropriate Assessment' (AA) is a required assessment to determine the likelihood of significant impacts, based on best scientific knowledge, of any plans or projects on European Sites. A screening for AA determines whether a plan or project, either alone or in combination with other plans and projects, is likely to have significant effects on a European Site, in view of its conservation objectives.

This AA Screening has been undertaken to determine the potential for significant effects on relevant European Sites. The purpose of this assessment is to determine, the appropriateness, or otherwise, of the Proposed Development in the context of the conservation objectives of such sites.

1.2.1 Legislative Context

An Appropriate Assessment is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a European Site. Paragraph 3 states that:

"6(3) 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."



These obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended ("the 2000 Act"), and in particular Section 177U and Section 177V thereof. The relevant provisions of Section 177U in relation to AA screening have been set out below:

"177U.— (1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European Site.

- (2) ...
- (3) ...
- (4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European Site.
- (5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European Site."

1.2.2 Stages of AA

This Appropriate Assessment Screening Report (the "Screening Report") has been prepared by Enviroguide Consulting. It considers whether the Proposed Development is likely to have a significant effect on a European Site and whether a Stage 2 Appropriate Assessment is required.

The AA process is a four-stage process, with issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

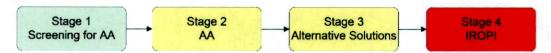


FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

The four stages of an AA, can be summarised as follows:

- · Stage 1 Screening addresses:
 - whether a plan or project is directly connected to or necessary for the management of the site, or



- whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European Site in view of its conservation objectives.
- Stage 2: Natura Impact Statement (NIS). The second stage of the AA process assesses the impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the European Site, having regard to the conservation objectives of the site and its ecological structure and function. A NIS must provide the objective scientific information to enable the competent authority to carry out an appropriate assessment of the proposed development. It should describe any mitigation measures to avoid and reduce significant negative effects.
- Stage 3: Assessment of alternative solutions. If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain. The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European Site, where no less damaging solution exists.



2 METHODOLOGY

2.1 Guidance

This AA Screening Report has been undertaken in accordance with the following guidance:

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 revision),
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10,
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2001),
- Communication from the Commission on the precautionary principle (European Commission, 2000),
- Assessment of plans and projects in relation to Natura 2000 sites Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2021), and,
- Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021.

2.2 Screening Steps

Screening for AA involves the following steps:

- Establish whether the plan or project is directly connected with or necessary for the management of a European Site,
- Description of the plan or project and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the European Site,
- Identification of European Sites potentially affected,
- Identification and description of potential effects on the European Site,
- Assessment of the likely significance of the effects identified on the European Site, and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

2.3 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources relevant for the completion of this Screening Report. The desktop study relied on the following sources:



- Information on the network of European Sites, boundaries, qualifying interests and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at www.npws.ie,
- Text summaries of the relevant European Sites taken from the respective Standard Data Forms and Site Synopses available at www.npws.ie,
- Information on species records and distributions, obtained from the National Biodiversity Data Centre (NBDC) at www.maps.biodiversityireland.ie,
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at www.gis.epa.ie,
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at www.gsi.ie,
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland,
- Information on the existence of permitted developments, or developments awaiting decision, in the vicinity of the Proposed Development available at the National Planning Application Database and South Dublin County Council.

For a complete list of the specific documents consulted as part of this assessment, see *Section 5 References*.

2.4 Assessment of Significant Effects

The potential for significant effects that may arise from the Proposed Development were considered through the use of key indicators, namely:

- · Habitat loss or alteration
- Habitat/species fragmentation
- · Disturbance and/or displacement of species
- · Changes in population density
- · Changes in water quality and resource

In addition, information pertaining to the conservation objectives of the European Sites, the ecology of the designated habitats and species and known or perceived sensitivities of the habitats and species were considered.



3 STAGE 1 SCREENING

3.1 Management of European Sites

The Proposed Development is not directly connected with or necessary to the management of European Sites.

3.2 Description of Proposed Development

3.2.1 Site location

The Site of the Proposed Development, as shown in Figure 2, is 2.56 Ha, located within Citywest Business Park. The Site is currently primarily comprised of a greenfield site and is bounded on the northwest by residential properties, and along the southwest by commercial units. The northeast of the Site is abutted by Kingswood Road, while the southeast is bordered by Kingswood Avenue. The surrounding landscape is predominantly urban in nature.

3.2.2 Description of Development

Rockface Developments Limited intend to apply for permission for development at a 2.56 Ha site at Kingswood Road and Kingswood Avenue, Citywest Business Campus, Dublin 24. The lands are generally bounded to the south-east by Kingswood Avenue, south-west and north-west by existing built development and to the north-east by Kingswood Road.

The development will comprise the provision of a warehouse with ancillary office and staff facilities and associated development. The warehouse will have a maximum height of 18 metres with a gross floor area of 11,691 sq m including a warehouse area (10,604 sq m), ancillary staff facilities (499 sq m) and ancillary office area (588 sq m).

The development will also include: a vehicular and pedestrian entrance to the site from Kingswood Road, a separate HGV entrance from Kingswood Avenue; 64 No. ancillary car parking spaces; covered bicycle parking; HGV parking and yards; level access goods doors; dock levellers; access gates; hard and soft landscaping; canopy; lighting; boundary treatments; ESB substation; plant; and all associated site development works above and below ground.



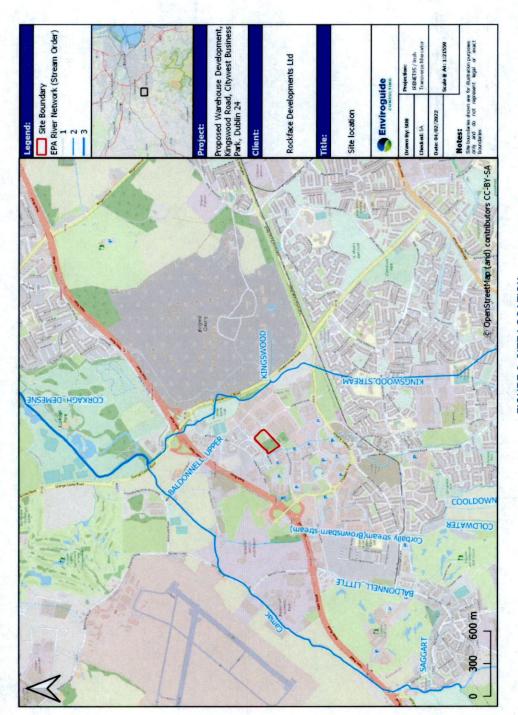


FIGURE 2. SITE LOCATION



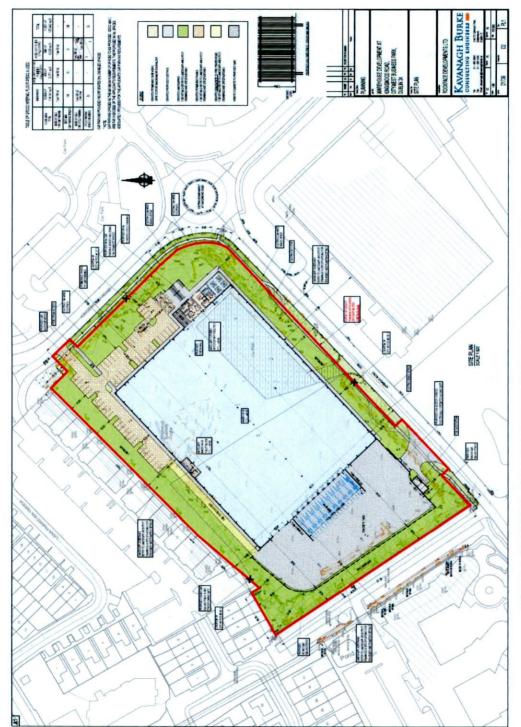


FIGURE 3. PROPOSED SITE LAYOUT (KAVANAGH BURKE CONSULTING ENGINEERS).



3.3 Existing Environment

3.3.1 Geology, Hydrology and Hydrogeology

The Site of the Proposed Development is within the *Liffey and Dublin Bay* catchment and *Liffey_SC_090* sub catchment. The closest watercourse to the Site is the Baldonnell Upper Stream 23m to the west, which flows into the River Camac 985m north of the Site. Water quality in the River Camac has been designated as *Moderate* by the EPA in 2019 (station code: RS09C020250). The River Camac flows into the River Liffey, and ultimately into Dublin Bay.

The Site is situated on the Dublin groundwater body, which is *Not At Risk* of not meeting its WFD objectives. The aquifer type within the Site boundary is a *Locally Important* (LI) aquifer on bedrock which is *Moderately Productive in Local Zones Only*. The groundwater rock units underlying the aquifer are classified as *Dinantian Upper Impure Limestones* (GSI, 2022). The level of vulnerability of the Site to groundwater contamination via human activities is *High* throughout most of the Site, with an area classed as *Extreme* within the south of the Site. The soil is classified as *Elton* and the subsoil is Limestone till (Carboniferous) (*TLs*) (EPA, 2022).

3.4 Identification of Relevant European Sites

In order to identify the European Sites that potentially lie within the Zone of Influence (ZOI) of the Proposed Development, a Source-Path-Receptor method (S-P-R) was adopted, as described in 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management' (OPR, 2021), a practice note produced by the Office of the Planning Regulator, Dublin. This note was published to provide guidance on screening for appropriate assessment (AA) during the planning process, and although it focuses on the approach a planning authority should take in screening for AA, the methodology is also readily applied in the preparation of Appropriate Assessment Screening Reports such as this.

The guidance document published by the Department of Housing, Planning and Local Government (then DEHLG) 'Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities' (2009) recommends an arbitrary distance of 15km as the precautionary ZOI for a plan or project being assessed for likely significant effects on European Sites, stating however that this should be evaluated on a case-by-case basis.

As such, the 15km ZOI is used in this report as an initial starting point for collating European Sites for AA screening.

The methodology used to identify relevant European Sites comprised the following:

- Use of up-to-date GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website (<u>www.npws.ie</u>) and the EPA website (<u>www.epa.ie</u>) to identify European Sites which could potentially be affected by the Proposed Development;
- The catchment data were used to establish or discount potential hydrological connectivity between the Project Boundary and any European Sites.
- All European Sites within the zone of influence (within 15km of the Proposed Development Site) were identified and are shown in Figure 4.



- The potential for connectivity with European Sites at distances greater than 15km from the Proposed Development was also considered in this initial assessment. In this case, there is potential connectivity between the Proposed Development Site and two European Sites located at a distance greater than 15km from the Proposed Development based on the S-P-R model.
- Table 1 provides details of all relevant European Sites as identified in the preceding steps. The potential for pathways between European Sites and the Proposed Development Site was assessed on a case-by-case basis using the Source-Pathway-Receptor framework as per the OPR Practice Note PN01 (March 2021). Those European Sites where a pathway has been identified are highlighted in green. Pathways considered included:
 - a. Direct pathways (e.g., proximity (i.e., location within the European Site), water bodies, air (for both air emissions and noise impacts).
 - b. Indirect pathways (e.g., disruption to migratory paths, 'Sightlines' where noisy or intrusive activities may result in disturbance to shy species.
- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report.
- There is absolutely no reliance placed in this Appropriate Assessment Screening Report on measures intended to avoid/reduce harmful effects on the European Sites.

The result of this preliminary screening concluded that there is a total of six SACs and four SPAs located within the ZOI of the Proposed Development Site. The distances to each site listed are taken from the nearest possible point of the Proposed Development Site boundary to the nearest possible point of each European Site.

Potential pathways between the Proposed Development Site and four European Sites within the ZOI was identified. The European Sites linked to the Proposed Development are:

- South Dublin Bay SAC
- North Dublin Bay SAC
- South Dublin Bay and River Tolka Estuary SPA
- North Bull Island SPA



TABLE 1. EUROPEAN SITES WITHIN THE 15KM PRECAUTIONARY ZONE OF INFLUENCE OF THE PROPOSED DEVELOPMENT AND POTENTIAL PATHWAYS BETWEEN THEM. THOSE EUROPEAN SITES FOR WHICH A S-P-R LINK WAS IDENTIFIED ARE HIGHLIGHTED IN GREEN.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
	Special Areas of Conservation (SAC)		
Glenasmole Valley SAC (001209)	[6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (* important orchid sites)*; [6410] <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae); [7220] Petrifying springs with tufa formation (Cratoneurion)*	5.2km	
Wicklow Mountains SAC (002122)	[3110] Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>); [3160] Natural dystrophic lakes and ponds; [4010] Northern Atlantic wet heaths with <i>Erica tetralix</i> ; [4030] European dry heaths; [4060] Alpine and Boreal heaths; [6130] Calaminarian grasslands of the <i>Violetalia calaminariae</i> ; [6230] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe); [7130] Blanket bogs (* if active bog); [8110] Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladami</i>); [8210] Calcareous rocky slopes with chasmophytic vegetation; [8220] Siliceous rocky slopes with chasmophytic vegetation; [9140] Old sessile oak woods with <i>llex</i> and <i>Blechnum</i> in the British Isles; [1355] <i>Lutra lutra</i> (Otter)	6.9km	None – There is no hydrological connection. In addition, the intervening distances between the Site and the SACs is sufficient to exclude the possibility of significant effects on the SACs arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and
Rye Water Valley/Carton SAC (001398)	[7220] Petrifying springs with tufa formation (Cratoneurion); [1014] Vertigo angustior (Narrow-mouthed Whorl Snail); [1016] Vertigo moulinsiana (Desmoulin's Whorl Snail)	8.8km	increased human presence at the Site during Construction and Operational Phase.
Red Bog, Kildare SAC (000397)	[7140] Transition mires and quaking bogs	13.1km	
South Dublin Bay SAC (000210)	[1140] Mudflats and sandflats not covered by seawater at low tide; [1210] Annual vegetation of drift lines; [1310] Salicornia and other annuals colonising mud and sand; [2110] Embryonic shifting dunes	14.3km	Yes – Weak hydrological pathway via surface water discharges via the local surface water network to the River Camac during both the Construction and
North Dublin Bay SAC (000206)	[1140] Tidal Mudflats and Sandflats; [1210] Annual Vegetation of Drift Lines; [1310] Salicornia Mud; [1330] Atlantic Salt Meadows; [1410] Mediterranean Salt Meadows; [2110] Embryonic Shifting Dunes; [2120] Marram Dunes (White Dunes); [2130] Fixed	>15km	Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.



Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
	Dunes (Grey Dunes)*; [2190] Humid Dune Slacks; [1395] Petalwort (<i>Petalophyllum ralfsi</i> i)		
	Special Protected Area (SPA)		
Wicklow Mountains SPA (004040)	[A098] Merlin Falco columbarius; [A103] Peregrine Falco peregrinus	10.1km	None – There is no hydrological connection. In addition, the intervening distances between the Site and the SPAs is sufficient to exclude the possibility and the SPAs is sufficient to exclude the possibility.
Poulaphouca Reservoir SPA (004063)	[A043] Greylag Goose <i>Anser anser</i> , [A183] Lesser Black-backed Gull <i>Larus fuscus</i>	13.3km	or significant enects of the STAs arising from emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
			The Site does not provide significant ex-situ habitat for QI/SCI species within the Site of the Proposed Development.
South Dublin Bay and River Tolka Estuary SPA (004024)	[A046] Light-bellied Brent Goose Branta bernicla hrota; [A130] Oystercatcher Haematopus ostralegus; [A137] Ringed Plover Charadrius hiaticula; [A141] Grey Plover Pluvialis squatarola; [A143] Knot Calidris canutus; [A144] Sanderling Calidris alba; [A149] Dunlin Calidris alpina; [A157] Bar-tailed Godwit Limosa lapponica; [A162] Redshank Tringa tetanus; [A179] Black-headed Gull Chroicocephalus ridibundus; [A192] Roseate Tem Stema dougallii; [A193] Common Tern Stema hirundo; [A194] Arctic Tern Stema paradisaea; [A999] Wetlands and Waterbirds	14.3km	Yes – Weak hydrological pathway via surface water discharges via the local surface water network to the River Camac during both the Construction and Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.



eceptor)	a surface e water oth the s and o Dublin Bay
Distance Connections (Source- Pathway- Receptor) to Site	Yes – Weak hydrological pathway via surface water discharges via the local surface water network to the River Camac during both the Construction and Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.
Distance to Site	>15km
Site Name & Qualifying Interests (*= priority habitats)	[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i> ; [A048] Shelduck <i>Tadoma tadoma</i> ; [A052] Teal <i>Anas crecca</i> ; [A054] Pintail <i>Anas acuta</i> ; [A056] Shoveler <i>Anas clopeata</i> ; [A130] Oystercatcher <i>Haematopus ostralegus</i> ; [A140] Golden Plover <i>Pluvialis apricaria</i> ; [A141] Grey Plover <i>Pluvialis squatarola</i> ; [A143] Knot <i>Calidris abus</i> ; [A144] Sanderling <i>Calidris alba</i> ; [A149] Dunlin <i>Calidris alpina alpine</i> ; [A156] Black-tailed Godwit <i>Limosa limosa</i> ; [A157] Bar-tailed Godwit <i>Limosa lapponica</i> ; [A160] Curlew <i>Numenius arquata</i> ; [A157] Bar-tailed Godwit <i>Limosa lapponica</i> ; [A160] Curlew <i>Numenius arquata</i> ; [A162] Redshank <i>Tringa tetanus</i> ; [A169] Turnstone <i>Aranaria interpres</i> ; [A179] Black-headed Gull <i>Chroicocephalus ndibundus</i> ; [A999] Wetlands and Waterbirds
Site Name & Site Code	North Bull Island SPA (004006)



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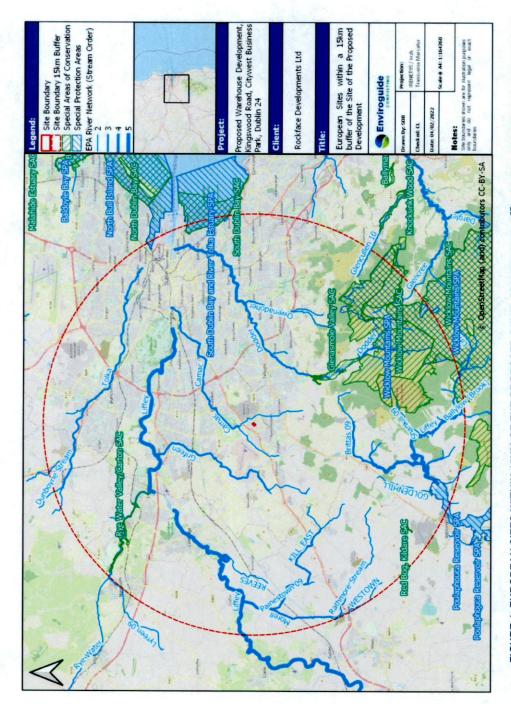


FIGURE 4. EUROPEAN SITES WITHIN 15KM OF THE PROPOSED DEVELOPMENT SITE. 1ST ORDER STREAMS ARE NOT SHOWN.



3.5 Assessment of Likely Significant Effects

A European Site will only be at risk from likely significant effects where the Source-Pathway-Receptor link exists between the Proposed Development and the European Site. As such, the remainder of this AA Screening report will focus on the European Sites for which a potential S-P-R link was identified, namely:

- South Dublin Bay SAC
- North Dublin Bay SAC
- South Dublin Bay and River Tolka Estuary SPA
- North Bull Island SPA

3.5.1 Conservation objectives

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them.

Site specific conservation objectives (SSCO) have been compiled for the European Sites listed above. Site-specific conservation objectives aim to define favourable conservation condition for habitats or species at a site.

The maintenance of habitats and species within European Sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- · its natural range, and area it covers within that range, are stable or increasing.
- 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.
- the conservation status of its typical species is favourable.

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.
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.5.2 Identification and Assessment of Likely Significant Effects

The conservation objectives of the European Sites within the zone of influence were reviewed and assessed to establish whether the construction and operation of the Proposed Development has the potential to have a negative effect on any of the qualifying interests and/or conservation objectives of the European Sites listed above.



The assessment framework is taken from the best practice guidelines issued by the European Commission, i.e., "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".

The potential for significant effects resulting from the Proposed Development during the Construction and Operational Phases was determined based on a range of indicators, including:

- Habitat loss or alteration.
- Habitat/species fragmentation,
- Disturbance and/or displacement of species,
- · Changes in population density, and
- Changes in water quality and resource.

The following elements of the Proposed Development were assessed for their potential for likely significant effects on European Sites.

Construction Phase

- Uncontrolled releases of silt, sediments and/or other pollutants to air due to earthworks
- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies.
- Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater.
- Waste generation during the Construction Phase comprising soils, construction and demolition wastes.
- Increased noise, dust and/or vibrations as a result of construction activity.
- Increased dust and air emissions from construction traffic.
- · Increased lighting in the vicinity as a result of construction activity.

Operational Phase

- · Surface water drainage from the Site of the Proposed Development.
- Foul water from the Proposed Development leading to increased loading on wastewater treatment plants.
- Increased lighting in the vicinity emitted from the Proposed Development; and
- Increased human presence in the vicinity as a result of the Proposed Development.

3.5.2.1 Habitat Loss and Alteration

The project is not located within any European Site and therefore there will be no loss or alteration of habitat as a result of the Proposed Development.

3.5.2.2 Habitat / Species Fragmentation

As there will be no direct habitat loss within any European Sites, no habitat fragmentation will arise as a result of the Proposed Development.

3.5.2.3 Changes in Water Quality and Resource

The Proposed Development will be served by the existing surface water network via a new connection. Therefore, there is a weak hydrological link between the Site and South Dublin



Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA via surface water discharges into the Baldonnell Upper Stream and then the River Camac from the Site during the Construction and Operational Phases.

SuDS Measures are included in the Project Design however, they <u>are not</u> being relied upon in any way to mitigate against likely significant effects on a European Site. It is a policy of South Dublin County Council (IE2 Obj-4) to "incorporate Sustainable Urban Drainage Systems (SuDS) as part of Local Area Plans, Planning Schemes, Framework Plans and Design Statements". As such, the Proposed Development design will entail a suite of SuDS measures that will be incorporated into the Proposed Development.

The potential for surface water generated at the Site of the Proposed Development to reach European Sites within Dublin Bay and cause significant effects, during both the Construction and Operational Phase, is negligible due to:

- The distance and consequent potential for dilution in the River Camac, River Liffey and Dublin Bay. Surface water discharges would have to travel over 20km along the River Camac and River Liffey before discharging into Dublin Bay.
- The potential for dilution in the surface water network during heavy rainfall events.

The Site will be served by a public foul sewer via a newly constructed connection. Therefore, there is a weak hydrological link between the Site and South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA via discharges from Ringsend WwTP during the Operational Phase. The potential for foul waters generated at the Site of the Proposed Development to reach these European Sites within Dublin Bay and cause significant effects, during the Construction and Operational Phases, is negligible due to:

- The potential for dilution in the surface water network during heavy rainfall events.
- The upgrade works to Ringsend WWTP which will increase the capacity of the facility from 1.6 million PE to 2.4 million PE (see section 3.5.2.6 below for more details).
- It is considered that effects on marine biodiversity and the European Sites within Dublin Bay from the current operation of Ringsend WwTP are unlikely (see section 3.5.2.6 for more details).
- The main area of dispersal of the treated effluent from Ringsend WwTP is in the Tolka Basin and around North Bull Island. South Dublin Bay is unaffected by the effluent from the plant (Irish Water, 2018).
- The increase of the Population Equivalent (PE) load at the facility as a result of the Proposed Development, assuming each PE unit was not previously supported by the WwTP, is considered to be an insignificant increase in terms of the overall scale of the facility. The increased load does not have the capacity to alter the effluent released from the WwTP to such an extent as to result in likely significant effects on European sites in Dublin Bay.



3.5.2.4 Disturbance and / or Displacement of Species

As outlined in section 3.5.2.3 above, the hydrological link between the Site and the European Sites in Dublin Bay that is assessed here will not result in significant effects on the water quality and resource indicator during both the Construction and Operational Phases. In addition, there is no potential for negative effects on the species within the European Sites due to the intervening distances between the site of the Proposed Development and the European sites.

3.5.2.5 Changes in Population Density

For the same reasons outlined in section 3.5.2.4 above, the Proposed Development does not have the capacity to cause any significant changes in the population density of any species within any European Site.

3.5.2.6 Potential for In-combination Effects Existing Planning Permissions

There are several existing planning permissions on record in the area ranging from small-scale extensions and alterations to existing residential properties to some larger-scale developments. The larger-scale development identified within the vicinity of the Proposed Development are as follows:

Planning Application Reference: SD16A/0302/EP.

Construction of three 3 storey office buildings, with a total floor area of approx. 16,732sq.m. The proposed development also provides for plant rooms at roof level, all associated site development works, landscaping, café (57sq.m), bicycle parking, car parking at surface level, basement level & a two level podium car park in the north-east corner of the site incorporating shower & changing facilities (152sq.m), ESB substations & service plant, and bin storage, all on a site area of 3.74ha. The effect of the proposed development will be a modification to part of an extant permission under Reg.Ref. SD06A/0737 & SD06A/0737/EP. The proposed development also provides for 2 vehicular access points off Kingswood Road (Old Naas Road) and 2 vehicular access points of Kingswood Avenue. (Decision: Grant Extension of Duration of Permission. Decision Date: 22/06/2021).

Planning Application Reference: SD21A/0039.

Installation of 2 x 3 meter high extract flues from proposed laboratories; construction of a covered boat storage compound within a secured parking area formed with a new 3 metre high security fence with access gates to the rear (north-west) side of the site, internal alteration within the existing building and all associated site works. (Decision: Grant Permission. Decision Date: 07/07/2021).

Planning Application Reference: SD14A/0123/EP.

6 two storey, 3 bedroom semi-detached houses and all associated site works on a 0.19 hectare site bound by Silken Park to the north, an existing office development to the south, undeveloped residential zoned lands to the east and Kingswood Road to the west. (Decision: Grant Extension of Duration of Permission. Decision Date: 22/01/2020).



Planning Application Reference: SD20A/0125.

1 x 50 KWp solar photovoltaic (PV) system on main office building. There will be a total of 156 PV panels on the main office roof and will occupy an area of 257sq.m. (Decision: Grant Permission. Decision Date: 27/07/2020).

Planning Application Reference: SD20A/0219.

Residential development consisting of 99 dwellings comprised of 84 two storey houses, 15 apartments and duplex units accommodated in 2 three storey blocks; the proposed houses are comprised of 9 two bed houses, 71 three bed houses, 4 four bed houses; the proposed apartments & duplex units are comprised of 6 one bed units, 3 two bed units and 6 three bed units, also providing for all associated site development and infrastructural works, car and bicycle parking, ESB sub-station, open spaces and landscaping, bin and bicycle storage; access to the development via a new vehicular entrance on the western boundary of the site, off the existing access road to the Luas park & ride facility on a site area of 3.14ha bounded to the north by Citywest Avenue, located east of a permitted residential development known as Citywest Village and existing ESB sub-station and is north of the Luas red line. (Decision: Grant Permission. Decision Date: 06/05/2021).

Planning Application Reference: SD21A/0150.

Construction of 4 warehouse/industrial units in 3 buildings of c.13,611sq.m total gross floor area (including ancillary offices and operational facilities) and up to 15m in height, with rear service yards; 155 car parking spaces; 72 cycle parking spaces; water services infrastructure and sustainable urban drainage system features, including relocation and resizing of a pump station permitted under SD15A/0391; internal road network accessed via 2 site entrances established in the previous planning applications on the Eastern and Southern sides of the site, via the roundabout at Citywest Avenue and the R136 outer ring road; amendments to the proposed tree pits along the green-link permitted under SD15A/0391; public lighting, landscaping, planting and boundary treatments throughout the development; all other necessary site and infrastructural works to facilitate the development. (Decision: Grant Permission. Decision Date: 07/10/2021).

Planning Application Reference: SD15A/0391/EP.

Installation of site services including the construction of a new gravity foul sewer, foul pumping station and rising main discharging to the public sewer, connection to the public watermain, boundary landscaping and planting treatments including removal of central hedgerow, provision of 'green link' path. Installation of a sub-surface collector drain and infilling of central dry drainage channel. Vehicular and pedestrian/cyclist access points, internal road commencement (details as marked on submitted plans) and all ancillary development works as necessary to facilitate future development at this site. (Decision: Grant Extension of Duration of Permission. Decision Date: 14/12/2020).

Planning Application Reference: SD15A/0127/EP.

A residential/mixed use development on a site area of 12.45ha consisting of 400 dwellings comprised of 340 no. 2 storey detached, semi-detached and terraced houses, i.e. 3 no. 2 bed houses, 323 no. 3 bed houses & 14 no. 4 bed houses along with 60 no. 1 and 2 bed apartments in 4 no. 3 & 4/5 storey buildings. The development also provides for a creche (615sq.m), kiosk



(56.6sq.m) and retail unit (237sq.m). The proposed development includes all associated site development and infrastructural works, car parking, open spaces and landscaping, ESB substation and 4 associated kiosks. Access to the development will by via two proposed new vehicular entrances from Citywest Avenue and Fortunestown Lane respectively and will also provide for two new vehicular crossing points over the Luas line. The development also includes for the demolition of an existing dwelling in the southwest corner of the site at the junction of Citywest Road and Fortunestown Lane. The site is bounded to the north by Citywest Avenue, to the west by the N82 Citywest Road, to the south by Fortunestown Lane, to the east by Ard Mor residential estate and is adjacent to the Luas Red Line. (Decision: Grant Extension of Duration of Permission. Decision Date: 01/07/2020).

Planning Application Reference: SD21A/0327.

A residential development of 77 dwellings comprised of 63 two storey houses and 14 apartments & duplex units accommodated in one 3 storey building. The proposed houses are comprised of 8 two bed houses & 55 three bed houses; the proposed apartments & duplex units are comprised of 7 one bed apartments at ground floor & 7 three bed duplex units overhead. The proposed development also provides for all associated site development & infrastructural works, car & bicycle parking, open spaces, hard & soft landscaping, boundary treatments and bin & bicycle storage; access to the development will be via a new vehicular entrance at the south-west corner of the site off the Old Naas Road. Permission is also sought to demolish the existing building on site approximately 455sq.m. all on a site area of 2.28Ha, at Gordon Park, Old Naas Road, Kingswood, Dublin 22 bounded to the west by the Old Nass Road, to the south by the Silken Park development and is located in the townland of Brownsbarn. (Decision: Grant Permission. Decision Date: 19/05/2022).

Planning Application Reference: SD21A/0162.

Construction of 2 warehouses with ancillary office and staff facilities and associated development; Unit 1 will have a maximum height of 16.35 metres with a gross floor area of 8,156sq.m including a warehouse area (7,397sq.m), ancillary office areas (362sq.m) and staff facilities (397sq.m); Unit 2 will have a maximum height of 15.35 metres with a gross floor area of 5,990sq.m including a warehouse area (5,031sq.m), ancillary office areas (536sq.m) and staff facilities (423sq.m); vehicular access/egress routes to the subject site via the existing roundabout and access road; alteration to the existing access arrangements to the subject lands to facilitate safe traffic flow to/from the proposed facilities; pedestrian access; 109 car parking spaces; bicycle parking; HGV Parking; HGV yards; level access goods doors; dock levellers; access gates; signage; hard and soft landscaping; lighting; boundary treatments; ESB substation; sprinkler tanks; pump houses; and all associated site development works above and below ground on lands bounded to the south by the N7 Naas Road, to the north and west by the National Distribution Centre and to the east by Brownsbarn Drive and the Royal Garter Stables, a Protected Structure (RPS Ref. 261). (Decision: Grant Permission. Decision Date: 28/03/2022).

These sites lie within 500m Proposed Development Site. The distance between the Proposed Development Site, the permitted development sites above and the closest European Site is approximately 4.7km. This distance, in addition to the significant urban buffer between the sites and European Sites, is sufficient to exclude the possibility of significant effects on the European Site arising from combined emissions of noise, dust, pollutants and/or vibrations



emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.

At the time of writing, there are no proposed or permitted forestry operations (thinning, clear felling, road construction) in close proximity to the Site of the Proposed Development¹.

Relevant Policies and Plans

The following policies and plans were reviewed and considered for possible in-combination effects with the Proposed Development.

- Connecting with Nature Draft Biodiversity Action Plan for South Dublin County 2020-2026
- South Dublin County Council Development Plan 2016-2022

The Connecting with Nature – Draft Biodiversity Action Plan for South Dublin County 2020-2026 is set out to protect and improve biodiversity, and as such will not result in negative incombination effects with the Proposed Development. The South Dublin County Council Development Plan 2016-2022 has directly addressed the protection of European Sites through specific policies (HCL12 Obj1-Obj2, HCL13 Obj1-Obj2). The relevant recommendations and mitigation measures have been integrated into the plan.

On examination of the above it is considered that there are no means for the Proposed Development to act in-combination with any plans or projects, that would cause any likely significant effects on any European Sites.

Operation of Ringsend WWTP

In June 2018 Irish Water applied for and subsequently received planning permission in 2019 for upgrade works to the Ringsend WwTP facility. The first phase of upgrade works to Ringsend WWTP was completed in December 2021, which increased the capacity of the facility by 400,000 P.E. These works, together with the further works permitted in 2019 will ultimately increase the capacity of the facility from 1.6 million PE to 2.4 million PE. This plant upgrade will result in an overall reduction in the final effluent discharge of several parameters from the facility including BOD, suspended soils, ammonia, DIN and MRP. An Environmental Impact Assessment Report (EIAR) was submitted by Irish Water as part of that application. The EIAR contains sections relating to Marine Biodiversity and Terrestrial Biodiversity, and each contains a section on the 'do-nothing scenario'. These review the effects of the WwTP on biodiversity in Dublin Bay in the absence of the upgrade works and so are relevant to this report.

The EIAR report acknowledges that under the do-nothing scenario "the areas in the Tolka Estuary and North Bull Island channel will continue to be affected by the cumulative nutrient loads from the river Liffey and Tolka and the effluent from the Ringsend WwTP", which could result in a decline in biodiversity and the deterioration of the biological status of Dublin Bay (Irish Water, 2018). Nevertheless, these negative impacts of nutrient over-enrichment are considered "unlikely" (Irish Water, 2018). This is because historical data suggests that

¹ https://forestry-maps.apps.rhos.agriculture.gov.ie/



pollution in Dublin Bay has had little or no effect on the composition and richness of the benthic macroinvertebrate fauna. The EIAR notes that "although a localised decline could occur, it is not envisaged to be to a scale that could pose a threat to the shellfish, fish, bird or marine mammal populations that occur in the area." Indeed, the results of the marine macroinvertebrate studies undertaken for the EIAR show that "the Inner Tolka Basin is host to macroinvertebrate communities as rich (if not richer) than those found in the north Dublin Bay and south Dublin Bay mudflats and sandflats". Furthermore, the EIAR notes that significant impacts on waterbird populations foraging on invertebrates in Dublin Bay due to nutrient overenrichment are "unlikely" to occur (Irish Water, 2018). What is important in the context of this AA screening report is that the do-nothing scenario predicts that nutrient and suspended solid loads from the WwTP will "continue at the same levels and the impact of these loadings should maintain the same level of effects on marine biodiversity" and that "if the status quo is maintained there will be little or no change in the majority of the intertidal faunal assemblages found in Dublin Bay which would likely continue to be relatively diverse and rich across the bay."

Therefore, it can be concluded that significant effects on marine biodiversity and the European Sites within Dublin Bay from the current operation of Ringsend WwTP are unlikely. Importantly, this conclusion is not dependent upon any future works to be undertaken at Ringsend. Thus, in the absence of any upgrading works, significant effects to European Sites are not likely to arise

On examination of the above it is considered that there are no means for the Proposed Development to act in-combination with any plans or projects, that would cause any likely significant effects on any European Sites.



TABLE 2. SUMMARY OF IMPACT ASSESSMENT ON EUROPEAN SITES AS A RESULT OF THE PROPOSED DEVELOPMENT.

2 2	bitat	Habitat or Species	Disturbance and/or	Changes in	Changes in	<u>-</u>	Stage 2
	<u>_</u>	Fragmentation	Displacement of Species	Population Density	water Quality and/or Resource	combination effects	AA Required
	N		No	None	None	None	ON
Wicklow Mountains SAC (002122)	N N		No	None	None	None	ON
Rye Water Valley/Carton SAC (001398)	S		No	None	None	None	ON
Red Bog, Kildare SAC (000397)	2		No	None	None	None	ON
South Dublin Bay SAC (000210)	2		No	None	None	None	ON
North Dublin Bay SAC (000206)	N N		No	None	None	None	ON
SPA							
Wicklow Mountains SPA (004040)	[∞]		No	None	None	None	ON
Poulaphouca Reservoir SPA (004063) No	N N		No	None	None	None	ON.
South Dublin Bay and River Tolka Estuary No SPA (004024)	N _O		ON	None	None	None	O _N
North Bull Island SPA (004006)	No	i i	No	None	None	None	ON



4 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

The Proposed Development at Kingswood Road, Citywest Business Park, Dublin 24 has been assessed taking into account:

- the nature, size and location of the proposed works and possible impacts arising from the construction works.
- · the qualifying interests and conservation objectives of the European Sites
- the potential for in-combination effects arising from other plans and projects.

In conclusion, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that, on the basis of objective information; the possibility **may be excluded** that the Proposed Development will have a significant effect on any of the European Sites listed below:

Glenasmole Valley SAC (001209)

Wicklow Mountains SAC (002122)

Rye Water Valley/Carton SAC (001398)

Red Bog, Kildare SAC (000397)

South Dublin Bay SAC (000210)

North Dublin Bay SAC (000206)

Wicklow Mountains SPA (004040)

Poulaphouca Reservoir SPA (004063)

South Dublin Bay and River Tolka Estuary SPA (004024)

North Bull Island SPA (004006)

In carrying out this AA screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any European Sites have similarly not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded, on the basis of the best scientific knowledge available, that the possibility of any significant effects on any European Sites, whether arising from the project itself or in combination with other plans and projects, can be excluded. Thus, there is no requirement to proceed to Stage 2 of the Appropriate Assessment process; and the preparation of a Natura Impact Statement (NIS) is not required.



5 REFERENCES

Department of the Environment, Heritage and Local Government. (2010). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. DEHLG, Dublin. (Rev. Feb 2010).

Environmental Protection Agency. (2022). Environmental Protection Agency Online Mapping [ONLINE] Available at: http://www.epa.ie/ [Accessed February 2022].

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

European Communities. (2021). Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Communities, Luxembourg.

Fossitt, J. (2000). A Guide to Habitats in Ireland. The Heritage Council, Kilkenny.

Franklin, A. N. (2002). What is Habitat Fragmentation? Studies in Avian Biology, 20-29.

Geological Survey Ireland. (2022). Geological Survey of Ireland website [ONLINE] Available at: http://www.gsi.ie/ accessed [Accessed February 2022].

Irish Water (2018) Ringsend Wastewater Treatment Plant Upgrade Project Environmental Impact Assessment Report. Volume 3 - Ringsend Wastewater Treatment Plant Part A: Report

NPWS. (2010). Circular NPW 1/10 & PSSP 2/10. Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.

NPWS. (2013a). Conservation Objectives: South Dublin Bay SAC [000210]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2013b). Conservation Objectives: North Dublin Bay SAC [000206]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2015a). Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA [004024]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2015b). Conservation Objectives: North Bull Island SPA [004006]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2017). Conservation Objectives: Wicklow Mountains SAC [002122]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS. (2019). Conservation Objectives: Red Bog, Kildare SAC 000397. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS. (2021a). Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 8.0. Department of Housing, Local Government and Heritage.



NPWS. (2021b). Conservation objectives for Rye Water Valley/Carton SAC [001398]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS. (2021c). Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS. (2021d). Conservation objectives for Poulaphouca Reservoir SPA [004063]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management, OPR Practice Note PN01

