

PROVISION OF INFORMATION REGARDING APPROPRIATE ASSESSMENT SCREENING PROPOSED NEW CREMATORIUM AND ASSOCIATED WORKS SHANGANAGH CEMETERY, SHANKILL, CO. DUBLIN

DÚN LAOGHAIRE-RATHDOWN COUNTY COUNCIL

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1 Introduction

The information in this report forms part of, and should be read in conjunction with, the documentation accompanying the Part 8 Planning application for a proposed Crematorium facility at Shanganagh Cemetery in Shankill, Co. Dublin.

This report which contains information required for the competent authority, in this instance Dún Laoghaire-Rathdown County Council (DLRCC), to undertake a screening exercise for Appropriate Assessment (AA), was prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on and assesses the potential for the proposed development to significantly affect Natura 2000 sites (hereafter "European sites"¹).

It is necessary that the proposal has regard to Article 6 of the *Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (as amended) (hereafter "the Habitats Directive"). This is transposed in Ireland primarily by *the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011)* (hereafter the Birds and Habitats Regulations) and the Planning and Development (Amendment) Act, 2010 as amended.

An AA is required if likely significant effects on European sites arising from a proposed development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects.

Following the preparation of this screening statement it may be objectively concluded that there is <u>no</u> <u>likelihood of any significant effects on any European sites arising from the proposed development,</u> <u>either alone or in combination with other plans or projects</u>. Therefore it is our view that an <u>Appropriate Assessment is not required in this instance</u>. The information in the tables below provide a summary of the information gathered for this screening exercise and the conclusions made.

2 Methodology

This Screening Statement for Appropriate Assessment was prepared with regard to the following guidance documents, where relevant:

- 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 Environment Directorate-General, 2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a nonmandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, updated April 2015); hereafter referred to as MN2000.
- 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,

¹ Natura 2000 sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats. In Ireland these sites are designed as *European sites* - defined under the Planning Acts and/or Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as candidate Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007).

- Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive. Findings of an international workshop on Appropriate Assessment in Oxford, December 2009².
- Communication from the Commission on the precautionary principle. European Commission (2000).

The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if Appropriate Assessment is required, documented screening is required. Screening identifies the likely effects on European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects.

If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites, as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there would be no requirement to undertake Appropriate Assessment.

However, even if screening makes a finding of no significant effects, and therefore concludes that Appropriate Assessment is not required, these findings must be clearly documented in order to provide transparency of decision-making, and to ensure the application of the 'precautionary principle'³.

Screening for Appropriate Assessment involves the following:

- Determining whether a project or plan is directly connected with or necessary to the conservation management of any European sites⁴;
- Describing the details of the project/plan proposals and other plans or projects that may cumulatively affect any European sites (see Table 1);
- Describing the characteristics of relevant European sites (Table 2); and,
- Assessing the likelihood and significance of effects on relevant European sites (see Table 2).

The information that was collected to allow the competent authority to screen the proposal was based on a desktop study carried out in November 2015 and updated in March 2016. Information relied upon included the following information sources, which included maps, ecological and water quality data:

- Ordnance Survey of Ireland mapping and aerial photography available from <u>www.osi.ie;</u>
- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) from <u>www.npws.ie;</u>
- Information on land-use zoning from the online mapping of the Department of the Environment, Community and Local Government http://www.myplan.ie/en/index.html;
- Information on water quality in the area available from <u>www.epa.ie;</u>
- Information on the Eastern River Basin District from <u>www.wfdireland.ie;</u>
- Information on soils, geology and hydrogeology in the area available from <u>www.gsi.ie;</u>
- Information on the location, nature and design of the proposed development supplied by the applicant's design team;

² Available online at <u>http://www.levett-therivel.co.uk/AAguidelines.htm</u> Accessed March 2016

³ One of the primary foundations of the precautionary principle, and globally accepted definitions, results from the work of the Rio Declaration. Principle #15 declaration notes:

[&]quot;In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

⁴ In this instance the proposed development is not directly connected with or necessary to the conservation management of any European sites.

- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2013a & 2013b);
- Information on the conservation status of birds in Ireland (Colhoun & Cummins, 2014).

The following planning and policy documents were relevant to the subject lands, in particular with regard to the assessment of other plans and projects with potential for cumulative effects:

- National Biodiversity Plan 2011 2016 (Department of Arts, Heritage and the Gaeltacht, 2011);
- *Dún Laoghaire-Rathdown County Development Plan 2016 2022* (Dún Laoghaire-Rathdown County Council 2010); and,
- Eastern River Basin District, River Basin Management Plan 2009-2015.

Table 1 Overview of the	e Proposed Development and its Receiving Environment
Brief Site Description	The site (<i>c.4.72 ha</i> in area) is located between the existing Shanganagh Cemetery east of the Dublin Road (R119) (at Irish National Grid Reference: O 2585 2081). The proposed development site consists of woodland, treelines, hedgerow, scrub and is dominated by rough grassland and some areas of hard standing. There is also a local Football Club and playing pitch amenity at the site. The subject lands are in a suburban setting with Shanganagh Park to the north, Woodbrook Golfcourse to the east/south-east and agricultural fields to the south. According to Myplan.ie the land is currently zoned as "G1 – Open space, park". Within the County Development Plan, Objective 61 for the Rathmichael/Old Connaught area is "To undertake a study into the feasibility of establishing a crematorium at Shanganagh Cemetery".
Features of the Surrounding Environment	The desktop study found no records of any species or habitats for which European sites listed in Table 2 are designated within the subject lands or environs. The following species (for which European sites listed in Table 2 were designated) were recorded within 2km of the proposed development site ⁵ :
	• Black-headed Gull <i>Larus ridibundus</i> – 2011;
	• Curlew Numenius arquata – 2011;
	• Ringed Plover <i>Charadrius hiaticula</i> – 2011;
	• Oystercatcher <i>Haematopus ostralegus</i> – 2015; and,
	• Redshank <i>Tringa tetanus</i> – 2011.
	The proposed development site is located within the Loughlinstown-Coastal River catchment. According to the EPA Envision Map Viewer ⁶ , there are no Rivers on or immediately near the site. The nearest known water feature is a small unnamed stream which flows in a southerly direction within a ditch on the western boundary of the site (within <i>c</i> . 137 m of the proposed location for a waste treatment facility at this site). It is unknown where this stream discharges to, however, it is possible that it meets the Rathmichael Stream further south of the site which eventually connects into the eastern end of the River Dargle and discharges to Dublin Bay at Bray. The Dargle River is classed as having 'Good Status' under the Water Framework Directive (WFD) River Waterbody Status 2010-2012. However, this river is classed as being <i>"at risk of not achieving good status"</i> under the Water Framework Directive (WFD) risk scoring system.
	Under the Ground waterbody WFD Status 2010 – 2012 the site lies within an area classed as having 'Good' status.
	The groundwater body at the proposed development site is within the 'Wicklow' ground waterbody and is described as 'Poorly productive bedrock'. According to the GSI Map Viewer ⁷ , the level of vulnerability to groundwater contamination from human activities in the immediate area is deemed to be 'High' and the site is located on a 'Locally Important Aquifer – Bedrock which is moderately productive only in local

⁵ NBDC online data <u>www.biodiversity.ie</u> accessed 23rd March 2016 (Grid Squares O22K and O22Q). This excludes NBDC records with a resolution greater than 1km².

⁶ EPA online data viewer <u>http://gis.epa.ie/Envision</u> accessed 23rd March 2016.

⁷ GSI Groundwater Viewer <u>http://dcenr.maps.arcgis.com/apps/webappviewer</u> accessed 23rd March 2016.

Table 1 Overview of	the Proposed Development and its Receiving Environment
	zones'.
	According to the EPA Envision Map Viewer the Southwestern Irish Sea - Killiney Bay (HA10) has coastal waters which are "Unpolluted". Under the "Trophic Status Assessment Scheme" classification of the EPA, "Unpolluted" means there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present (EPA, 2015). The most recently available water quality data for the Irish Sea indicates it is 'Unpolluted'.
	According to the draft Eastern Catchment Flood Risk Assessment and Management (CFRAM) ⁸ this site lies outside of areas of fluvial flood risk. This is also indicated on the Floodmaps.ie mapping (OPW).
	The historic maps ⁹ indicate that this site was previously used for agricultural purposes.
Description of Proposed Development	Full details of the proposed development are provided in the applicant's planning documentation. In brief, the proposed development will involve the construction of a new crematorium facility at Shanganagh Cemetry in Shankill, Co. Dublin. The facility will comprise of a series of buildings including; an Upper and Lower Hall for conducting memorial ceremonies; an administration building comprising staff facilities and public toilets; and, a crematorium building; A coffee and flower shop. Elements of the design include for additional car parking facilities; a columbarium wall; new burial plots; a meadow; a woodland copse and walk; and, a future pedestrian route to connect the Woodbrook Local Area Plan (LAP) lands to Shanganagh Park.
	Following a Site Characterisation Assessment in March 2016 by Heffernan & Associates Civil Engineers, the intended location for a waste water treatment facility (at approximate Grid Reference: O 258 208) was found to be suitable, subject to the correct procedures within EPA Cop 2009 ¹⁰ and EPA Manual 1999 ¹¹ being strictly adhered to and if the facility is developed as proposed during the time of that assessment (Heffernan, I. (2016)). Following the Ground Investigation (percolation test holes) the site for the WWT facility was found to have loose free draining soils. The trial hole contained no water on the day of the inspection and conditions were good. The groundwater source protection for this site was found to be R1 – Acceptable subject to normal good practice.
	Foul effluent generated from the development will flow by combined sewer to a packaged waste water treatment system and sand polishing filter located in the centre of the site. Here waste water shall be treated for a P.E. of 90 (combined maximum P.E. of 1637 for this site). The

⁸ http://eastcfram.irish-surge-forecast.ie/?page_id=615 (Please note this is only a guide and the CFRAM maps are currently in draft and undergoing a consultation process).

⁹ http://maps.osi.ie/publicviewer Accessed 23rd March 2016

¹⁰ EPA (2009) Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e < 10)

¹¹ EPA (1999) Wastewater Treatment Manuals Treatment Systems for Small Communities, Business, Leisure Centres and Hotels.

Table 1 Overview of th	ne Proposed Development and its Receiving Environment
	tank will be sized as a 90 PE tank (Capacity: 1637/180), the sand polishing filter required will be 270m ² and an attenuation layer of 300mm underneath of this stone to provide a final layer before the treated effluent dishcharges to ground. A Eurotank WWT system shall be installed by a suitably qualified person and the applicant shall enter into an annual maintenance contract to ensure that the system is properly maintained.
	Green roofs shall be used on buildings throughout the site which will attenuate a certain amount of rain water, the surface water drainage on the site shall meet SUDs requirements, according to the final drainage layout by Punch associates.
	Note: Currently in Ireland, crematoria are not regulated under the Air Pollution Act and the Waste Incineration Directive does not apply. The crematoria shall be constructed in accordance with DEFRA 2012 ¹² .
Other existing or proposed	Existing habitat loss pressures
plans or projects nearby which may lead to cumulative effects on European sites.	The subject lands do not physically overlap with any European sites. The nearest European site is <i>c</i> .2.8km away. The site lies within a suburban/semi-rural setting with woodland, scrub, treelines, hedgerow and rough grassland present on site. None of the habitats on this site are listed under Annex I of the Habitats Directive. These habitats are not indirectly connected with any habitats within European sites (<i>e.g.</i> by groundwater). No mobile fauna species for which European sites are designated are known (or are likely) to use the habitats within the subject lands. There is therefore no potential for cumulative effects relating to habitat loss.
	Existing pressures on water quality within European Sites in proximity to the site
	Several intertidal habitats for which European Sites in Killiney Bay (and Dublin Bay) are designated are failing to meet favourable conservation status. For some of these, water pollution is considered a threat ranked as being of <i>"High importance"</i> ¹³ (NPWS, 2013a). However, as waste water shall be treated on this site and discharge to ground, this is not deemed to pose a risk to Killiney or Dublin Bay.
	Pressures on European Sites in Killiney Bay from Surface Waters
	The section entitiled <i>"Features of the Surrounding Environment"</i> on p.6 of this report describes the baseline environment of the environs for the proposed site. Treatment of the surface waters on the proposed development site shall meet within SUDs requirements according to the final drainage plan provided by PUNCH engineers. Surface water shall drain to via a 225mm diameter sewer to an attenuation tank located in the south-west of the study area with sufficient capacity for this site. The man hole will be fitted with a hydrobrake device to limit to limit outflow. Green roofs shall be installed on Hall 1, Hall 2, the crematorium and the coffee and flower shop.
	There is potential for "in-combination" effects of proposed plans and projects within the Dún Laoghaire-Rathdown County Development Plan

¹² DEFRA (2012) Process Guidance Notes 5/2 (12) Statutory Guidance for Crematoria.

¹³ For example, "tidal mudflats and sandflats" was of "Inadequate" conservation status. This habitat was threatened by water pollution and was a reason for designation of North Dublin Bay SAC, and South Dublin Bay SAC. Under 'wetlands', the habitat was also a Special Conservation Interest of the South Dublin Bay and River Tolka Estuary SPA, and North Dublin Bay SPA.

Table 1 Overview of th	e Proposed Development and its Receiving Environment
	2010-2016 which can influence conditions in Killiney Bay via rivers and other surface water features. Killiney Bay is of 'Unpolluted' water quality status (EPA 2010) and the pollutant content of future surface water discharges to Killiney Bay are considered likely to be decreased in the long-term. This is because it is an objective of the Greater Dublin Strategic Drainage Study, and development plans within the catchments of Shanganagh WWTP to include Sustainable Urban Drainage Systems in new development. Together these objectives are considered likely to reduce pressures on designated marine and intertidal species and habitats in Killiney Bay.
	There are a number of existing and proposed development projects within the vicinity of this site which have the potential to produce <i>"in combination"</i> effects to water quality in the River Dargle and Killiney Bay. According to Myplan.ie the proposed site is zoned as <i>"G1 – Open space, park"</i> . The areas surrounding this site are zoned as <i>"R1 – New/Proposed Residential"</i> in the north west and to the south, <i>"G1 – Open Space, Park"</i> surrounds the site and is also located across the dartline in the northeast and areas of <i>"G3 – Conservation, amenity or buffer space, corridor/belt, landscape"</i> . As such, although considerable areas of land in the vicinity are zoned for open space, there are a number of large areas which are proposed for new residential development <i>e.g.</i> the Shanganagh Castle Site which lies to the north of the cemetery site, the Cherrywood development plan (which lies to the north-west of the site between the N11 and the M50, and fields south of the site in 'Cork Little' have been zoned for residential development within the county development plan. The site lies >500m from the coast and there are no European Sites witin 2.5km of the subject lands, as such it is deemed unlikely that significant impacts upon European Sites are likely as a result of developing this land as a crematorium even in when considered in combination with areas of residential development in the locality. This is as a result of the potential for dilution and mixing of any water runoff from the site within the local surface water network and in Killiney Bay before reaching any European Sites within 15km. Surface water drainage will also comply with EPA and GDSDS recommendations with SUDS being encorporated on site.
	There is a risk that construction related contamination (e.g. through surface water run off) could flow overland into the local drainage network. There is a high water table at this site in some areas, and as such, where required, dewatering of excavations will be necessary during construction (PUNCH 2013). Appropriate treatment of attenuated water will be required prior to this being allowed to enter the local surface water network e.g. silt traps and petrol interceptors should be used where appropriate.
	However, such overflows are deemed unlikely to result in significant effects upon water quality in Killiney Bay. This is due to the following circumstances: any pollution events will only occur during a short period of time (i.e. <2 years during construction); are likely to be infrequent (i.e. limited to storm flows) where best practice guidelines for construction sites have been adhered to; and, due to the distance of the study area from Killiney Bay (>500m) and European Sites (>2.5km), any pollution events that occur are likely to result in small concentrations of contaminants reaching European Sites in both Killiney Bay following, dilution, adsorption and mixing in the River Dargle and/or the local drainage network. Therefore, the risk of significant adverse impacts upon the water quality of any of the European sites within 15km of this development is considered to be negligible.
	Pressures on European sites in Killiney Bay from effluent
	The Shanganagh WWTP has a wastewater treatment capacity of 186,000 population equivalent (P.E.) with the potential of increasing its

Table 1	Overview of the	e Proposed Development and its Receiving Environment
		capacity to 248,000 P.E., if required in the future. The treated effluent from the plant is now consistently exceeding the standards laid down in the Urban Wastewater Directive ¹⁴ . However, effluent at this site shall be treated via a packaged waste water treatment system (Heffernan, 2016). Therefore, the treated water on this site will be discharged to ground and will not require treatment at Shanganagh WWTP.
		Conclusion for potential in-combination effects from surface and/or foul waters
		There will be no likelihood for significant effects on any European sites, and there will be no adverse effects on European site integrity during the construction or operation of the proposed development in combination with other plans or projects. This judgement was reached on the basis that:
		 The coastal waters in Killiney Bay are classed as 'Unpolluted' by the EPA;
		 It is an objective of all development plans within the catchment of Shanganagh WWTP to include Sustainable Urban Drainage Systems for all new development; and,
		 A packaged Waste Water Treatment system and sand polishing filter which has been sized according to the maximum P.E. at this site shall be used in order to treat waste water and discharge cleaned water to ground on site.
		The recent upgrade at Shanganagh WWTP has ensured that the 'Unpolluted' water quality status of coastal waters at Killiney Bay are maintained, despite potential pressures from future development. The distance of the site from any European site and the WWT and SUDs systems proposed shall ensure that there are no significant impacts posed by this development (see Figure 1).

¹⁴ According to information on Dún laoghaire Rathdown County Council Website. Available at:

http://www.dlrcoco.ie/aboutus/councildepartments/corporateservices/communicationsoffice/excellenceinlocalgovernmentawards2013/shanganaghwastewatertreatmentplant/ Accessed 25th November 2015

European sites within 1km, 5km and 15km of the proposed development site are shown in Figure 1 overleaf.

Site name and code	Distance from Proposed Development (approximate)	Reasons for designation ¹⁵ (*= Priority Habitat) (Sourced from NPWS online Conservation Objectives Generic Version 3.0 for SACs and 4.0 for SPAs, unless otherwise stated).	Relevant source-pathway-receptor links between proposed development and European site? No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway- receptor link ¹⁶ exists).
Special Areas of Cons	ervation		
Ballyman Glen (000713)	Located <i>c.</i> 2.8km to the southwest	Conservation Objectives Generic Version 4.0 (13/02/15) Annex I Habitats: [7220] Petrifying springs with tufa formation (Cratoneurion) [7230] Alkaline fens	No, The subject lands and this SAC both lie within a High groundwater vulnerability area, however impacts from this site are deemed to be unlikely due to distance from the SAC and the fact that the subject site lies downstream of this designated site, within a different river catchment and sub-basin.
Knocksink Wood (000725)	Located <i>c.</i> 4.6km to the southwest	Conservation Objectives Generic Version 4.0 (13/02/15) Annex I Habitats: [7220] Petrifying springs with tufa formation (Cratoneurion) [91E0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	No. Although the subject lands and this SAC lie within the same High groundwater vulnerability zone, there is a significant distance between these two sites, the subject lands lie downstream of the SAC (within a different river and sub-catchment). Ir addition, there is no direct downstream surface water linkage to the site.
Glen of the Downs (000719)	Located <i>c.</i> 8.8km to the south	Conservation Objectives Generic Version 4.0 (13/02/15) Annex I Habitats:	No. The subject site does not share any surface water features or ground water bodies with thi site, and lies a significant distance away from the

¹⁵ "Qualifying Interests" for SACs and "Special Conservation Interests" for SPAs based on relevant Statutory Instruments for each SPA, and NPWS Conservation Objectives for SACs downloaded from www.npws.ie in July 2015.

¹⁶ For significant effects to arise, there must be a risk enabled by having a 'source' (*e.g.* construction works at a proposed development site), a 'receptor' (*e.g.* a SAC), and a pathway between the source and the receptor (*e.g.* a watercourse connecting a proposed development site to a SAC). The identification of a pathway does not automatically mean significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (*e.g.* duration of construction works), the characteristics of the pathway (*e.g.* water quality status of watercourse receiving run-off from construction) and the characteristics of the receptor (*e.g.* the ecology including conservation status of the SAC reason for designation). When expert judgment determines, that significant effects are likely to arise, both the pathway, and the European site are considered "Relevant", and an Appropriate Assessment is triggered.

		• [91A0] Old sessile oak woods with <i>llex</i> and <i>Blechnum</i> in British Isles	SAC.
Bray Head (000714)	Located <i>c.</i> 3.4km to the south	 Conservation Objectives Generic Version 4.0 (13/02/15) Annex I Habitats: [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites) 	Unlikely. The proposed crematorium site partially shares the same "High vulnerability" groundwater body as Bray Head SAC (according to the GSI mapping), however, there is a significant distance between the two sites and the subject lands lie on flat ground downstream of the SAC site. There is no direct surface water linkage to this site. Appropriate management of surface water and foul water at the site (See Table 1 above) will ensure that no significant impacts occur to this SAC.
Rockabill to Dalkey Island SAC (003000)	Located <i>c.</i> 3.3km to the northeast	Detailed Conservation Objectives Version 1.0 (07 May 2013) Annex I Habitats: Reefs [1170] Annex II Species: Harbour porpoise (Phocoena phocaena) [1351]	The development site does not have any water features that connect into this SAC. Any foul water generated would be sufficiently treated in the WWT system and sand polishing filter on site preventing significant impacts upon this site as a result of this development.
South Dublin Bay SAC (000210)	Located <i>c.</i> 8.5km to the north	Conservation Objectives Version 1.0 (22/08/13) Annex I Habitats: Mudflats and sandflats not covered by seawater at low tide [1140]	The development site does not have any water features that connect into this SAC. Any foul water generated would be sufficiently treated in the WWT system and sand polishing filter on site preventing significant impacts upon this site as a result of this development.
North Dublin Bay SAC (000206)	Located <i>c.</i> 13.8km to the north	Conservation Objectives Version 1.0 (06/11/13)Annex I Habitats:• Mudflats and sandflats not covered by seawater at low tide [1140]• Annual vegetation of drift lines [1210]• Salicornia and other annuals colonizing mud and sand [1310]• Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]• Mediterranean salt meadows (Juncetalia maritimi) [1410]	No for the same reasons set out under South Dublin Bay SAC above.

		 Embryonic shifting dunes [2110] 	
		 Shifting dunes along the shoreline with Ammophila arenaria ("whit e dunes") [2120] 	
		 *Fixed coastal dunes with herbaceous vegetation("grey dunes")[21 30] 	
		 Humid dune slacks [2190] 	
		Annex II Species:	
		 Petalophyllum ralfsii (Petalwort) [1395] 	
Wicklow Mountains	Located c.	Conservation Objectives Generic Version 4.0 (13/02/15)	No, due to distance and the absence of a
SAC (002122)	7.8km to the	Annex I Habitats:	hydrological or any other linkage between the proposed development and the European site.
	west	 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] 	
		 Natural dystrophic lakes and ponds [3160] 	
		 Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] 	
		 European dry heaths [4030] 	
		 Alpine and Boreal heaths [4060] 	
		 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] 	
		 Blanket bogs (* if active bog) [7130] 	
		 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110] 	
		 Calcareous rocky slopes with chasmophytic vegetation [8210] 	
		 Siliceous rocky slopes with chasmophytic vegetation [8220] 	
		 Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] 	
		Annex II Species:	
		 Lutra lutra (Otter) [1355] 	



Table 2 Analys	is of European s	ites within 15km.	
The Murrough Wetlands (002249)	Located <i>c.</i> 13km to the south	 Conservation Objectives Generic Version 4.0 (13/02/15) Annex I Habitats: Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] Alkaline fens [7230] 	The development site does not have any water features that connect into this SAC. Any foul water generated would be sufficiently treated in the WWT system and sand polishing filter on site preventing significant impacts upon this site as a result of this development.
Carriggower Bog (000716)	Located <i>c.</i> 12.9km to the south	Conservation Objectives Generic Version 4.0 (13/02/15) Annex I Habitats: Transition mires and quaking bogs [7140]	No, due to distance and the absence of a hydrological or any other linkage between the proposed development and the European site.
Special Protection Ar	eas (SPA)	I	
Dalkey Islands (004172)	Located <i>c.</i> 5.7km to the north	 Conservation Objectives Generic Version 4.0 (13/02/15) Roseate Tern (Sterna dougallii) [A192] [passage] Common Tern (Sterna hirundo) [A193] [passage] Arctic Tern (Sterna paradisaea) [A194] [passage] 	The development site does not have any water features that connect into this SAC. Any foul water generated would be sufficiently treated in the WWT system and sand polishing filter on site preventing significant impacts upon this site as a result of this development. The site lies a significant distance from the SPA which would prevent disturbance impacts to the birds of this site occurring as a result of the proposals.
South Dublin Bay and River Tolka Estuary (004024)	Located <i>c.</i> 8.6km to the north	 Conservation Objectives Version 1.0 (09/03/15) Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] [wintering] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] [wintering] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] [wintering] Grey Plover (<i>Pluvialis squatarola</i>) [A140] [wintering] 	No for the same reasons set out under Dalkey Islands SPA above.



Table 2 Analy	sis of European	 sites within 15km. Knot (<i>Calidris canutus</i>) [A143] [wintering] Sanderling (<i>Calidris alba</i>) [A144] [wintering] Dunlin (<i>Calidris alpina</i>) [A149] [wintering] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] [wintering] Redshank (<i>Tringa totanus</i>) [A162] [wintering] Black-headed Gull (<i>Croicocephalus ridibundus</i>) [A179] [wintering] Roseate Tern (<i>Sterna dougallii</i>) [A193] [breeding] Common Tern (<i>Sterna hirundo</i>) [A193] [breeding] 	
		 Arctic Tern (<i>Sterna paradisaea</i>) [A194] [passage] Wetlands & Waterbirds [A999] 	
North Bull Island SPA (004006)	Located <i>c.</i> 14km to the north	 Conservation Objectives Version 1.0 (09/03/15) Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] [wintering Shelduck (<i>Tadorna tadorna</i>) [A048] [wintering] Teal (<i>Anas crecca</i>) [A052] [wintering] Pintail (<i>Anas acuta</i>) [A054] [wintering] Shoveler (<i>Anas clypeata</i>) [A056] [wintering] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] [wintering] Golden Plover (<i>Pluvialis apricaria</i>) [A140] [wintering] Grey Plover (<i>Pluvialis squatarola</i>) [A141][wintering] Knot (<i>Calidris canutus</i>) [A143] [wintering] Sanderling (<i>Calidris alba</i>) [A144] [wintering] Dunlin (<i>Calidris alpina</i>) [A149] [wintering] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] [wintering] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] [wintering] Curlew (<i>Numenius arquata</i>) [A160] [wintering] Redshank (<i>Tringa totanus</i>) [A162] [wintering] Turnstone (<i>Arenaria interpres</i>) [A169] [wintering] 	No for the same reasons set out under Dalkey Islands SPA above.

		 Black-headed Gull (<i>Croicocephalus ridibundus</i>) [A179] [wintering] Wetlands & Waterbirds [A999] 	
Wicklow Mountains SPA (004040)	Located <i>c.</i> 8.2km to the west	 Conservation Objectives Generic Version 4.0 (13/02/15) Merlin Falco columbarius [A098] Peregrine Falco peregrinus [A103] 	No, the development site is at a sufficient distance that impacts upon birds in the SPA would not occur and there are no hydrological linkages to this SPA.
The Murrough (004186)	Located <i>c.</i> 13.8km to the south	 Conservation Objectives Generic Version 4.0 (13/02/15) Red-throated Diver (Gavia stellata) [A001] Greylag Goose (Anser anser) [A043] Light-bellied Brent Goose (Branta bernicla hrota) [A046] Wigeon (Anas penelope) [A050] Teal (Anas crecca) [A052] Black-headed Gull (Chroicocephalus ridibundus) [A179] Herring Gull (Larus argentatus) [A184] Little Tern (Sterna albifrons) [A195] Wetland and Waterbirds [A999] 	No for the same reasons set out under Dalkey Islands SPA above.



Figure 1. All European sites within 15km of the site



3 Conclusions of the Screening Assessment

Following an examination, analysis and evaluation of the relevant information including, in particular, the nature and design of the proposed development and the potential relationship between the proposed development and relevant European sites and, applying the precautionary principle, it is the professional opinion of the authors of this report that there will be no likelihood of significant effects on any European sites, arising either from the proposed development alone or in combination with other plans or projects. Therefore it is our view that a full Appropriate Assessment is not required.



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