Appropriate Assessment Screening Report

Proposed Strategic Housing Development

St Teresa's, Temple Hill, Monkstown, Blackrock, Co. Dublin

prepared for Oval Target Ltd.

Scott Cawley, College House, 71 – 73 Rock Road, Blackrock, Co. Dublin, A94 F9X9, Ireland

Tel+353(1)676-9815 Fax +353(1) 676-9816

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1 Introduction

1 This report, which contains information required for the competent authority to undertake Stage One screening for Appropriate Assessment (AA), has been prepared by Scott Cawley Ltd. on behalf of the applicant for permission. It provides information on, and assesses the potential for, the proposed development to impact on European sites. The proposed development is a strategic housing development [SHD] St Teresa's, Temple Hill, Monkstown, Blackrock, Co. Dublin.

2 A Stage Two Appropriate Assessment is required if 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. It is the responsibility of the competent authority to make a decision as to whether or not the proposed development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

For the reasons set out in detail in this AA Screening Report, an **Appropriate Assessment of the proposed St. Teresa's strategic housing development is not required in this instance** as it can be concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans or projects, will not have a significant effect on any European sites.

2 Methodology

2.1 Guidance

3 This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:

- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021)
- *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 in Relation to Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021)
- *Communication from the Commission on the precautionary principle* (European Commission, 2000), and
- EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019)

2.2 Assessment Methodology

4 The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening (Stage One) is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).

5 Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).

6 Screening for Appropriate Assessment involves the following steps:

7 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 is no requirement to undertake a (Stage Two) Appropriate Assessment.

8 In establishing which European sites are potentially at risk (in the absence of mitigation) from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a

European site or its QI(s) or SCI(s)[1]), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

9 The identification of source-pathway-receptor connection(s) between the proposed development and European sites essentially is the process of identifying which European sites are within the Zone of Influence (ZoI) of the proposed development, and therefore potentially at risk of significant effects. The ZoI is the area over which the proposed development could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives[2].

10 The 'likely significant effects' test is based on the precautionary principle[3]. The precautionary principle means that, based on the most reliable available information, where there is uncertainty or doubt as to the absence of significant effects, the project cannot be screened out and an appropriate assessment must be carried out[3] is applied.

2.3 Desktop Data Review

11 The desktop data sources used to inform the assessment presented in this report are as follows (accessed on 16th April 2021, and updated on 5th November 2021):

- Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie[4], including conservation objectives documents
- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie

[1] The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

[2] As defined in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018)

[3] The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

The guidance document *Communication from the Commission on the Precautionary Principle* (European Commission, 2000) notes that the precautionary principle "*covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection*".

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are possible and AA must be carried out.

[4] The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2021_10 and SPA_ITM_2021_10.

- Information on the location, nature and design of the proposed development supplied by the applicant's design team
- *Environmental Impact Assessment Report for Proposed Strategic Housing Development at St Teresa's, Temple Hill, Monkstown, Blackrock, Co. Dublin* (Oval Target Ltd., 2021)
- *Ecological Impact Assessment for Proposed Strategic Housing Development at St Teresa's SHD, Temple Hill, Monkstown, Blackrock, Co. Dublin* (Oval Target Ltd., 2018)

2.4 Baseline Surveys

2.4.1 Habitats and Flora Survey

12 A habitat survey was undertaken of the proposed development site on 14th, 16th and 23rd March 2018 by Colm Clarke of Scott Cawley Ltd. These surveys were repeated on 18th May 2021 by Alexis FitzGerald of Scott Cawley Ltd. The surveys followed the methodology described in *Best Practice Guidance for Habitat Survey and Mapping*[5]. All habitat types were classified using the *Guide to Habitats in Ireland*[6], recording the indicator species and abundance using the DAFOR scale[7] and recording any species of conservation interest. Vascular and bryophyte plant nomenclature generally follow that of *The National Vegetation Database*[8], having regard to more recent taxonomic changes to species names after the *New Flora of the British Isles*[9] and the British Bryological Society's *Mosses and Liverworts of Britain and Ireland: A Field Guide*[10]. Annex I habitat types were classified after the *Interpretation manual of European Union Habitats EUR28*[11] with reference to the corresponding national habitat survey reports and NPWS wildlife manuals, as applicable. The nomenclature for Annex I habitats follows that of the *Interpretation manual of European Union Habitats EUR28* with abbreviated names after those used in *The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview*[12].

2.4.2 Fauna Surveys

2.4.2.1 Terrestrial Mammals (excl. Bats)

13 A terrestrial fauna survey (excluding bats) was undertaken in tandem with the habitat surveys above. The presence/absence of terrestrial fauna species were surveyed through the detection of field signs such as tracks, markings, feeding signs, and droppings, as well as by direct observation. The habitats on site were assessed for signs of usage by protected/red-listed fauna species, and their potential to support these species. Surveys to check for the presence of badger setts within the study area, and to record any evidence

[5] Smith, G.F., O'Donoghue, P., O'Hora, K. & Delaney, E. (2011) *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council Church Lane, Kilkenny, Ireland.

[6] Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

[7] The DAFOR scale is an ordinal or semi-quantitative scale for recording the relative abundance of plant species. The name DAFOR is an acronym for the abundance levels recorded: Dominant, Abundant, Frequent, Occasional and Rare.

[8] Weekes, L.C. & FitzPatrick, Ú. (2010) The National Vegetation Database: Guidelines and Standards for the Collection and Storage of Vegetation Data in Ireland. Version 1.0. Irish Wildlife Manuals, No. 49. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

[9] Stace, C. (2019) *New Flora of the British Isles*. *4th Edition*. C&M Floristics.

[10] Atherton, I., Bosanquet, S. & Lawley, M. (2010) *Mosses and Liverworts of Britain and Ireland: A Field Guide*. Latimer Trend & Co., Plymouth.

[11] CEC. (Commission of the European Communities) (2013) *Interpretation manual of European Union Habitats EUR28.* European Commission, DG Environment.

[12] NPWS (2019). *The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview.* Unpublished NPWS report.

of use, were also undertaken. Three camera traps were deployed over a four week recording period from 17th February 2021 to 12th March 2021 by Alexis FitzGerald of Scott Cawley, to monitor the activity of local badger populations and setts within the lands.

2.4.2.2 Birds

14 Bird activity within the subject lands was recorded using a combination of direct sightings and identification of songs and calls on 14th, 16th and 23rd March 2018 and on 7th June 2018. A systematic inspection of the external parts of the building was undertaken to search for birds' nests. Areas of amenity grassland within the lands were checked for signs for overwintering wetland birds, such as their droppings and feathers. A single breeding bird survey was also carried out on 10th June 2021, and a long-eared owl survey on 27th May 2021, both by Shane Brien and Zuzana Erosova of Scott Cawley Ltd. The methodology used for the surveys was adapted from the *Bird Monitoring Methods - A Manual of Techniques for Key UK Species* [13]. Lands within the study area were slowly walked in a manner allowing the surveyor to come within 50m of all habitat features. Birds were identified by sight and song, and general location and activity were recorded using the British Trust for Ornithology (BTO) species and activity codes.

2.4.2.3 Bats

15 A ground-level assessment of all trees and structures within the subject lands, to examine their suitability to support roosting bats and potential to act as important landscape features for commuting and foraging bats, was completed. The assessment of structures included external inspections only. The assessment was based on guidelines in *Bat Surveys for Professional Ecologists: Good Practice Guidance*[14] and included inspections of trees and structures for potential roost features (PRFs), and for signs of bats (staining at roost entrances, droppings, carcasses, insect remains).

16 A check of internal and external parts of all buildings within the lands was undertaken on 16th March 2018 by Paul Scott, Colm Clarke and Shea O'Driscoll of Scott Cawley. This involved a search for signs such as bat droppings, dead specimens and feeding remains, and involved access to roof spaces. These inspections were repeated fully on 8th December 2020 and 9th February 2021 by Colm Clarke and Alexis FitzGerald of Scott Cawley.

17 Two separate pre-dawn bat roost presence/absence surveys involving three surveyors each were undertaken on 22nd May 2018 and 7th June 2018 by Colm Clarke, Shea O'Driscoll and Lauren Shinkwin of Scott Cawley Ltd. Surveys were undertaken within the main season of bat activity during calm, dry weather conditions. Bat calls were recorded using Elekon Batlogger M detectors. One dawn and one dusk survey were also undertaken on 7th September 2020 and 18th September 2020, respectively, by Cathal O'Brien, Niall McHugh and Shane Brien of Scott Cawley Ltd. A repeat of these surveys were also undertaken on 10th June and 27th May 2021, respectively, by Shane Brien and Zuzana Erosova of Scott Cawley Ltd.

18 Bat activity within the lands was recorded through the deployment of two automated bat detectors (Wildlife Acoustics Songmeter 2+ detectors) between 25th May 2018 and 7th June 2018, and a single manual transect survey on 5th July 2018 between 21:40 (i.e. 15 minutes before sunset) until 23:25 (i.e. one and a half hours after sunset) by Shea O'Driscoll. One detector (SM2-16675) was deployed along a yew hedgerow south of St. Teresa's House, while the second detector (SM2-16688) was deployed within woodland in the southeast corner of the lands.

19 The surveys were designed with reference to methodologies in *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. Surveys involved completion of a walked transect within the proposed

[13] Gilbert, G., Gibbons, D.W. & Evans, J. (1998) *Bird Monitoring Methods - A Manual of Techniques for Key UK Species*. RSPB: Sandy

[14] Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

development site and bat activity was recorded using a handheld bat detector (Batlogger-M). Recordings collected in the field were analysed using specialist sound analysis software (Elekon BatExplorer) to aid in the identification of bat species by their calls, (where this was possible), using professional judgement and with reference to *British Bat Calls: A Guide to Species Identification*[15].

3 Provision of Information for Screening for Appropriate Assessment

20 The following sections provide information to facilitate the (Stage One) Screening for Appropriate Assessment in respect of the proposed St. Teresa's SHD to be undertaken by the competent authority.

21 A description of the proposed development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the proposed development to affect the receiving ecological environment (e.g. hydrogeological and hydrological data).

22 The potential impacts are examined in order to define the potential zone of influence of the proposed development on the receiving environment. This then informs the assessment of whether the proposed development will result in significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Description of the Proposed Development

23 The proposed development comprises 493 residential units delivered in a combination of new apartment buildings (ranging in height from 3- 10 storeys overall in height) and a relocated St. Teresa's Lodge.

24 St. Teresa's House provides for 6 apartments, comprising 5 no. 2-bed units and 1 no. 3-bed unit. The new build element of 487 units is set out in 11 no. residential development blocks (Blocks A1-C2 and D1 – E2) ranging in height from 3-10 storeys over basement comprising:

- Block A1 (5 storeys) comprising 37 no. apartments (33 no. 1 bed units and 4 no. 2 bed units)
- Block B1 (10 storeys) comprising 55 no. apartments (37 no. 1 bed units, 10 no. 2 bed units and 8no. 3 bed units)
- Block B2 (8 storeys) comprising 42 no. apartments (28 no. 1 beds, 9 no. 2 beds and 5 no. 3 beds)
- Block B3 (8 storeys) comprising 42 no. apartments (28 no. 1 beds, 9 no. 2 beds and 5 no. 3 beds)
- Block B4 (5 storeys) comprising 41 no. apartments (4 no. studio units, 4 no. 1 bed units, 27 no. 2 bed units and 6 no. 3 bed units).
- Block C1 (3 storeys) comprising 10 no. apartments (1 no. studio unit, 3 no. 1 bed units and 6 no. 2 bed units).
- Block C2 (3 storeys) comprising 6 no. apartments (2 no. 1 bed units, 4 no. 2 bed units,) together with a creche facility of 392 sq. m at ground floor level and outdoor play area space of 302sq.m
- Block C3 (1 storey plus basement level) comprising residential amenity space of 451 sq. m.
- Block D1 (6 storeys) comprising 134 no. apartments (12 no. studio units, 22 no. 1 bed units, 90 no. 2 bed units and 10 no. 3 bed units).
- Block E1 (6 storeys) comprising 70 apartment units (34 no. 1 bed units, 26 no. 2 bed units and 10 no. 3 bed units).

[15] Russ, J. (2012) *British Bat Calls: A Guide to Species Identification*. Pelagic Publishing, Exeter, United Kingdom. ISBN 978-1-907807-25-1.

- Block E2 (6 storeys) comprising 50 units (1 no. studio unit, 29 no. 1 bed units, 18 no. 2 bed units and 2 no. 3 bed units).

25 Each residential unit has associated private open space in the form of a terrace/balcony.

26 Resident amenity space c. 451 sq. m. accommodating a gym and studio space at basement level; residents' lounge/café, work booths/meeting room and reception/foyer/parcel store at ground floor.

27 Crèche facility of 392. sq. m.

28 252 no. residential car parking spaces (161 no. at basement level and 91 no. at surface level) and 20 motorcycle spaces at basement level are proposed. 8 no. car parking spaces for creche use are proposed at surface level.

29 1056 no. bicycle parking spaces (656 no. at basement level and 400 no. at surface level).

30 15,099.7 sq. m. public open space in the form of a central parkland, garden link, woodland parkland (incorporating an existing folly), a tree belt, entrance gardens, plazas, terraces, gardens, and roof terraces for Blocks B2 and B3.

31 There will be no blasting or other works that may impact groundwater. The works will involve vegetation clearance and there will be demolitions of all buildings within the proposed development site. The construction programme is expected to last c.40-48 months.

3.2 Overview of the Receiving Environment

3.2.1 European sites

32 The subject lands are not located within, or adjacent to, any European sites (see Figure 1). The closest European site is South Dublin Bay SAC (000210) and South Dublin Bay and River Tolka Estuary SPA (004024), both of which are located c.300m north of the proposed development site.

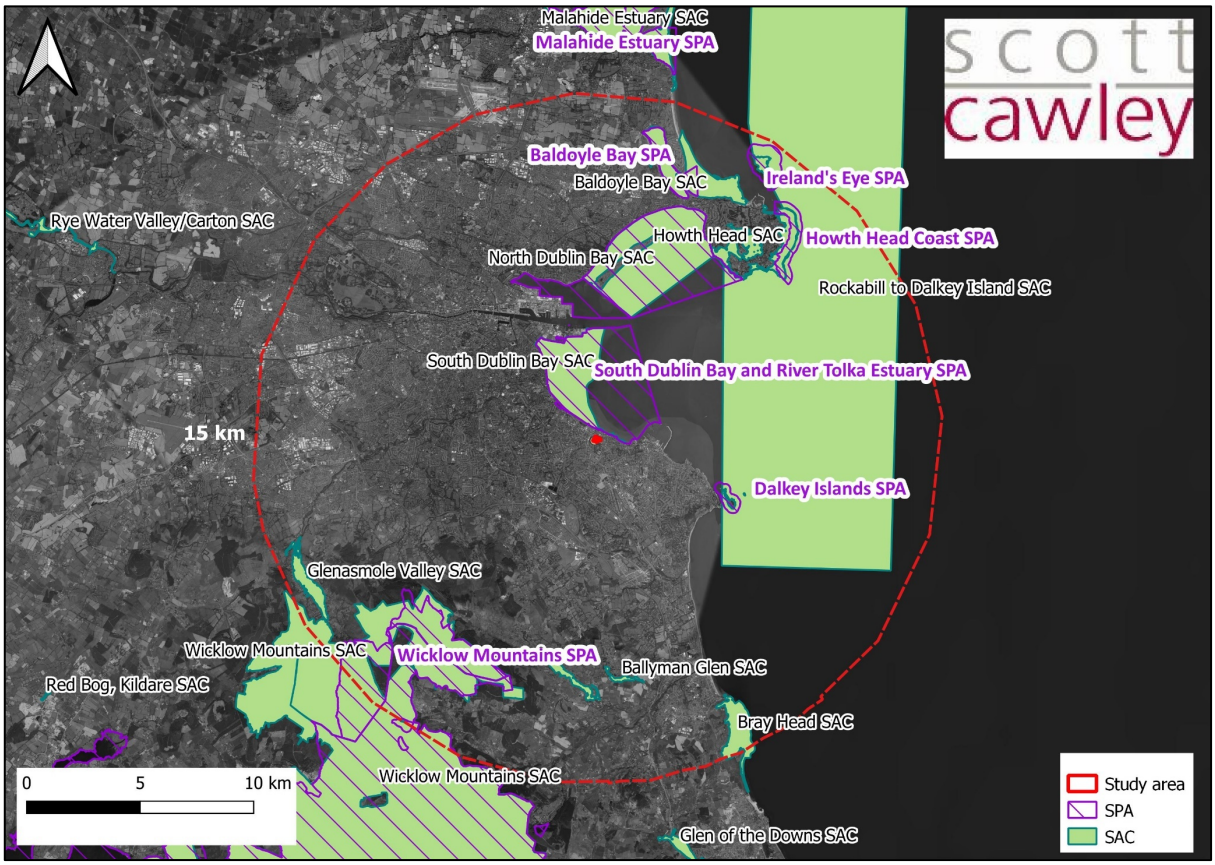
33 The Carysfort-Maretimo Stream flows northwards just west of the proposed development site and hydrologically connects the proposed development site (indirectly) to European sites located downstream in Dublin Bay.

34 There are four SACs and four SPAs within the vicinity of the proposed development and downstream in Dublin Bay as follows (see Figure 1):

- South Dublin Bay SAC (000210), which is c.300m north of the proposed development site and designated for dune and tidal habitats.
- North Dublin Bay SAC (000206), which is c.5.4km north of the proposed development site and designated for a range of coastal habitats, and populations of *Petalophyllum ralfsii*.
- North Bull Island SPA (004006), which is c.5.2km north of the proposed development site and designated for a range of wintering wetland bird species.
- South Dublin Bay and River Tolka Estuary SPA (004024), which is c.300m north of the proposed development site and designated for a range of wintering wetland bird species.
- Howth Head SAC (000202), which is c.9.2km north-east of the proposed development site and designated for its coastal and heathland habitats.
- Howth Head Coast SPA (004113), which is c.10.7km north-east of the proposed development site and designated for its populations of kittiwake *Rissa tridactyla*.
- Rockabill to Dalkey Island SAC (003000), which is c.5.4km east of the proposed development site and designated for its coastal reef habitat and harbour porpoise *Phocoena phocoena* populations.

- Dalkey Islands SPA (004172), which is c.5.5km south-east of the proposed development site and designated for a range of coastal bird species.

Figure 1 European sites in the vicinity of the proposed development



3.2.2 Habitats

35 The proposed development is flanked by urban residential and commercial lands to the east, north and west, and by parklands to the south. The Carysfort-Maretimo stream runs near the western boundary of the development.

36 The following habitat types assigned using the Heritage Council classification system[7] were identified within the proposed development site:

- Amenity grassland (improved) (GA2)
- Dry meadows and grassy verges (GS2)
- Hedgerows (WL1)
- Treelines (WL2)
- Buildings and artificial surfaces (BL3)
- Scrub (WS1)
- Scattered trees and parkland (WD5)
- (Mixed) broadleaved woodland (WD1)
- Ornamental/non-native shrub (WS3)
- Flower beds and borders (BC4)

37 At the time of surveys, the habitats on site largely comprised of improved dry meadows and grassy verges (GS2), scattered trees and parkland (WD5), (mixed) broadleaved woodland (WD1) and buildings and artificial surfaces (BL3).

38 There are no Annex I habitats present within the proposed development site or immediate environs. The hedgerows, treelines, dry meadows and grassy verges, scrub, scattered trees and parkland and (mixed) broadleaved woodland habitats within the proposed development are considered to be of local importance (higher value). The habitat types are described in greater detail in Chapter 5 of the EIAR accompanying this application[16].

3.2.3 Flora and Fauna Species

39 The desktop study did not find records for any Annex II flora within c. 2km of the proposed development. Field surveys undertaken at the proposed development site did not record any Annex II flora.

Otter

40 The desktop study found records for one Annex II species, otter *Lutra lutra*, for which European sites in the vicinity of the proposed development are designated.

41 The most recent record for otter in the NBDC database is from the Dublin Bay coast at Monkstown, c. 590m east of the proposed development, in 1980. The Carysfort-Maretimo Stream is not known to be used by otter, however, otter spraint has been recorded at one location along the Carysfort-Maretimo Stream c.250m north of the proposed development boundary in 2019 (Macklin & Brazier, 2019). No evidence of otter was recorded within the proposed development site during field surveys undertaken in 2018 and 2021. The closest European site for which otter is a QI is the Wicklow Mountains SAC, c. 14.3km south-east of the proposed development site.

Freshwater white-clawed crayfish

42 The NBDC data search yielded no records for Annex II species freshwater white-clawed crayfish *Austropotamobius pallipes* within c. 2km of the proposed development site. This species is not known to occur in the Carysfort-Maretimo Stream. There are no European sites designated for the species upstream or downstream of the proposed development site. The nearest designated site for the species is the Lough Lene SAC, c. 78.7km north-west of the proposed development site.

Atlantic salmon

43 The NBDC did not yield any records for Atlantic salmon *Salmo salar* within c. 2km of the proposed development. This species is not known to occur in the Carysfort-Maretimo Stream, however, Macklin & Brazier (2019) recorded in the stream in Rockfield Park (just to the south of the proposed development) in 2019, "*some good localised gravel substrata and deeper pools offer limited salmonid habitat (brown trout, Salmo trutta). Siltation was relatively low in this section but riparian cover was often very high which, although offering some degree of seclusion, prohibited much primary productivity in-stream*". The nearest designated site for Atlantic salmon is the River Boyne and River Blackwater SAC, c. 47.7km north-west of the proposed development.

Marine Mammals

44 The desktop study found records for bottle-nosed dolphin *Tursiops truncatus*, common dolphin *Delphinus delphis*, common/harbour porpoise *Phocoena phocoena*, common seal *Phoca vitulina* and grey seal *Halichoerus grypus* in the sea within c. 2km of the proposed development. These species all occur downstream of the development in Dublin Bay. Of these marine mammal species, only common porpoise is a Qualifying Interest (QI) species for any of the Dublin Bay SACs and, specifically, it is a QI species for the

[16] *Environmental Impact Assessment: Proposed Strategic Housing Development, St Teresa's, Temple Hill, Monkstown, Blackrock, Co. Dublin* (Oval Target Ltd., 2021).

Rockabill to Dalkey Island SAC, c. 5.4km east of the proposed development. The most recent record for common porpoise in the NBDC database is from the Dublin Bay coast at Dun Laoghaire Harbour, c. 2.5km north-east of the proposed development, in 2014.

Marsh fritillary

45 There were records for Annex II marsh fritillary *Euphydryas aurinia* for which there are no European sites designated in the vicinity of the proposed development site. The nearest designated site for marsh fritillary is the Ballynafagh Lake SAC, located *c.* 39.5km west of the proposed development site.

Wintering birds

46 The desktop study found records for 26 SCI wintering bird within c. 2km of the proposed development. A full list of SCI species from the desktop study is represented in Appendix III.

47 Black-headed gulls *Chroicocephalus ridibundus* were recorded flying over the lands during the field survey within the lands, but no individuals were recorded using the site for foraging and/or roosting. No black-headed gull droppings or feathers were recorded during checks of amenity grassland within the lands. The nearest designated site for black-headed gull is the North Bull Island SPA, located c. 5.2km north of the proposed development.

48 The proposed development is within the normal foraging range of SCI species of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA; however, it comprises of limited areas of suitable foraging habitat due to grasslands being enclosed by hedgerows and/or treelines and lack of suitable foraging grounds (e.g. open amenity grassland). No other SCI species of any European sites were recorded in the vicinity of the proposed development site during field surveys.

Raptors

49 The desktop study found records for two SCI raptor species, namely hen harrier *Circus cyaneus,* merlin *Falco columbarius*, within c. 2km of the proposed development.

50 There is suitable foraging habitat for both of these species within the proposed development site. The nearest SPA designated for hen harrier is the Slieve Bloom Mountains SPA, located c. 84.9km west of the proposed development. The nearest SPA designated for merlin is the Wicklow Mountains SPA, located c. 9.9km south-west of the proposed development. While there may be pockets of suitable rank grassland within the lands for foraging hen harrier or merlin, neither of these species frequent urban areas and are typically found occurring in remote upland habitats, well removed from the site and its vicinity.

Non-native invasive species

51 With regards to records for non-native invasive species within c. 2km of the proposed development, the NBDC database search returned records for the following non-native invasive species:

- *Heracleum mantegazzianum*
- *Reynoutria japonica*
- *Azolla filiculoides*
- *Allium triquetrum*
- Sika deer *Cervus nippon*
- Japanese skeleton shrimp *Caprella mutica*
- American mink *Mustela vison*, and,
- Eastern grey squirrel *Sciurus carolinensis*.

52 All four of the plant species above are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011.

53 In addition to the NBDC data records, *Hyacinthoides hispanica* and *Allium triquetrum* were recorded by the Scott Cawley Ltd. surveyors within the proposed development boundary during field surveys in 2018 and

2021. Both of these species are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011.

3.2.4 Hydrology

54 There are no major waterbodies within the proposed development site, however, the Carysfort-Maretimo Stream does flow northwards just west of the site, before entering Dublin Bay c. 335m downstream of the site. This stream is canalised and/or closed-culverted along much of its length. The Carysfort-Maretimo Stream has '*Unassigned*' WFD status. Dublin Bay, located *c*. 335m downstream of the proposed development site, has '*Good*' WFD status and is '*not at risk*' according to the EPA.

55 The site is located within the Dodder sub-catchment in the Liffey and Dublin Bay catchment, which drain to Dublin Bay.

3.2.5 Hydrogeology

56 According to GSI, the bedrock aquifer underlying the proposed site is described as a '*Poor Aquifer – bedrock which is generally unproductive except for local zones*'. The groundwater bedrock is '*granites and other igneous intrusive rocks*' and groundwater body name is the '*Kilcullen – poorly productive bedrock*'. The groundwater vulnerability underlying the site is '*extreme*'.

57 The following European Sites are contained within the Kilcullen groundwater body; Rockabill to Dalkey Island SAC, Wicklow Mountain SAC, Wicklow Mountain SPA and Glenasmole Valley SAC. The Groundwater Body (GWB) underlying the site is the Kilcullen GWB, which is currently classified by the EPA as having '*Good Status*' and is '*not at risk*'. There is only one European site within the Kilcullen GWB designated for groundwater dependent terrestrial habitats and species, namely Glenasmole Valley SAC, c. 13.5km west of the proposed development site.

3.3 Assessment of Effects on European Sites

58 This section identifies all the potential impacts associated with the proposed development, examines whether there are any European sites within the ZoI of effects from the proposed development, and assesses whether there is any risk of the proposed development resulting in a significant effect on any European site, either alone or in combination with other plans or projects.

59 In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project (i.e., "mitigation measures") on European sites are not taken into account.

3.3.1 Habitat loss and fragmentation

60 The proposed development does not overlap with the boundary of any European site. Therefore, there are no European sites at risk of direct habitat loss impacts.

61 As the proposed development does not traverse any European sites there is no potential for habitat fragmentation to occur.

62 The proposed development site does not support populations of any fauna species linked with the QI populations of any European site.

- Otter – while the Carysfort-Maretimo Stream may support otter populations, the population is not considered to form part of the QI population of any European sites. The closest European site for which otter is a QI species is the Wicklow Mountains SAC, *c*. 9.7km south of the proposed development site. Due to distance and estimated foraging ranges for otter (estimated as 7.5 ±

1.5km in length for females, and 13.2 ± 5.3km in length for males)[17], any local population of otter does not form part of the Wicklow Mountains SAC population.

- Freshwater white-clawed crayfish – there are no European sites designated for freshwater white-clawed crayfish hydrologically connected to the proposed development. The nearest European site for the species is the Lough Lene SAC, *c*. 78.7km north-west of the proposed development site.
- Atlantic salmon – the nearest European site for Atlantic salmon is the River Boyne and River Blackwater SAC, *c*. 47.7km north-west of the proposed development. Considering that the Carysfort-Maretimo Stream is located in a different sub-catchment than the River Boyne and River Blackwater SAC and its location relative to the proposed development site, any Atlantic salmon populations which may be found in this stream do not form part of any SAC population.
- Marine mammals – common porpoise is a Qualifying Interest (QI) species for the Rockabill to Dalkey Island SAC, located *c*. 5.4km east of the proposed development. Therefore, common porpoise populations occurring downstream of the proposed development site in Dublin Bay are considered to form part of the SAC population of this species. However, considering that the site is *c*. 300m south of Dublin Bay, and *c*. 5.4km east of the SAC itself (well outside of the disturbance ZoI of the proposed development site for marine mammals), and furthermore given the wide-ranging area within Dublin Bay which the population can utilise, no likely negative impacts on SAC populations of common porpoise will occur.

63 One SCI species recorded flying over the proposed development site is considered to be linked with the SCI populations of any European site, namely, black-headed gull. The proposed development is within the normal foraging range of SCI species of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA; however, it comprises of limited areas of suitable foraging habitat (e.g. open amenity grassland) due to grasslands being enclosed by hedgerows and/or treelines, and due to the absence of suitable wetlands used by wintering SCI species. Also the species was not recorded foraging or roosting within the site, but merely flying over it.

64 The site is also within the normal range of other SCI species, particularly light-bellied Brent goose *Branta bernicla hrota*. The nearest recorded inland feeding site for light-bellied brent geese is at Blackrock Park, c.770m north-west of the proposed development[18] so is in relatively close proximity to the subject lands. However, the habitats within the proposed development are deemed not suitable as an inland feeding habitat for light-bellied brent goose, which utilise open grassland pitches and fields with a short sward height as foraging and/or roosting habitat. The amenity grasslands within the site contain a relatively large proportion of mosses, are enclosed by tall trees, and are home to several resident domestic cats. The following factors may contribute to the lack of overwintering wetland bird species within the lands: The proportion of moss to grass within the sward may mean that the lands consist of low quality foraging habitat; the presence of tall trees on the perimeter of the field may inhibit take-off and landing for the birds; while, the presence of cats (a predator of birds) may discourage birds from landing.

65 As the proposed development will not result in habitat loss or habitat fragmentation within any European site, there is no potential for any in combination effects to occur in that regard.

[17] Reid, N., Hayden, B., Lundy, M.G., Pietravalle, S., McDonald, R.A. & Montgomery, W.I. (2013) *National Otter Survey of Ireland 2010/12*. Irish Wildlife Manuals No. 76. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

[18] Enviroguide Consulting (2019) *Natura Impact Statement for Proposed Strategic Housing Development at St Paul's College, Sybil Hill Road, Raheny, Dublin 5*. Report produed for Crekav Trading GP Ltd.

3.3.2 Habitat degradation as a result of hydrological impacts

66 Surface water run-off and discharges from the proposed development will drain to the existing and proposed local surface water drainage network. Foul waters from the proposed development will be discharged to Ringsend WWTP for treatment, via the existing foul water drainage network, prior to discharge into the Liffey Estuary/Dublin Bay. Therefore, the Zone of Influence (ZoI) of potential effects on water quality from the proposed development could potentially extend to Dublin Bay.

Surface water

67 Surface water run-off and discharges from the proposed development will enter the downstream receiving environment via existing and proposed surface water drainage network. This network will ultimately discharge into Dublin Bay. Therefore, the Zone of Influence (ZoI) of potential effects on water quality from the proposed development could potentially extend to Dublin Bay.

68 Surface water runoff from the proposed development will be attenuated to greenfield runoff rates and conveyed to the receiving watercourse, the Carysfort-Maretimo Stream. The surface drainage network will be designed in accordance with the recommendations of the Greater Dublin Strategic Drainage Study (GDSGS). Attenuation measures include gullies, channels, storage ponds and porous asphalt. All surface water will run through hydrocarbon interceptors before its release to the receiving watercourse.

69 A Hydrological and Hydrogeological Risk Assessment (AWN, 2021) submitted with this application deals with the hydrology and hydrogeology of the proposed development site. The risk assessment also assesses the hydrological and hydrogeological risks associated with the proposed development. The assessment involved the creation of a conceptual site model (CSM). This model is "*developed based on a good understanding of the hydrological and hydrogeological environment, plausible sources of impact and knowledge of receptor requirements. This in turn allows possible Source Pathway Receptor (S-P-R) linkages to be identified. If no S-P-R linkages are identified, then there is no risk to identified receptors*". All potential sources were considered, including during construction and operational phases. All potential sources of contamination are considered without taking account of any measures intended to avoid or reduce harmful effects of the proposed project (mitigation measures) i.e. a worst-case scenario. Potential sources considered include: rupturing of/leakage from fuel tanks or construction equipment; run-off of wet cement or suspended solids into nearby waterways; leakage of petrol/diesel from car parking areas; silt run-off from stormwater drainage system; any potential issues with foul water drainage. The assessment found that the potential for off-site migration due to any construction discharges is low as there is no significant pathway in the underlying aquifer or through land ditches or streams. Indeed, there is no 'direct' hydrological linkage for construction or operational run-off from the site to European sites as stormwater is discharged through a combined sewer towards the Ringsend WWTP. There is also no 'direct' pathway for foul sewage to any receiving water body, including the Carysfort-Maretimo Stream. There is however an 'indirect pathway' through the public sewer, which is pumped from West Pier and ultimately discharges to the Ringsend WWTP prior to discharge to Dublin Bay post treatment. The assessment also found that the potential for hydrogeological impacts on the underlying aquifer is low based on the low chemical storage on site. Furthermore, the overburden thickness, low permeability nature of till and a lack of fracture connectivity within the granite bedrock aquifer will minimise the rate of off-site migration for any indirect discharges to ground at the site. Loading levels and the high level of dilution in the combined sewer, West Pier pumping station and in Dublin Bay will ensure that there are no significant negative effects on European sites as a result of polluted stormwater discharge from the site. Finally, in terms of operational phase discharge from car parking areas, there will be negligible loading of discharge, and the distance between the source and Dublin Bay (c. 300m) and the significant dilution in the combined sewer will ensure that any released hydrocarbons are maintained at background levels and will not negatively impact on European sites. In summary, the assessment concluded that, based on the potential sources of pollution from the proposed development during construction and operation phases, there is no potential for impacts to occur on European sites in Dublin Bay.

70 In line with good practice effective mitigation measures have been included in the construction design, management of construction programme and during the operational phase of the proposed development. However, it must be noted that these are included in the design, not for the purposes of avoiding or

reducing any potential harmful effects to any European sites but are required for new developments under the under the objectives of the Greater Dublin Strategic Drainage Study and Dun Laoghaire-Rathdown County Council Development Plan and in line with good construction practice.

71 It is an objective of the Greater Dublin Strategic Drainage Study, and the Dun Laoghaire-Rathdown County Council Development Plan 2016-2022, to incorporate Sustainable Urban Drainage Systems (SUDS) within new developments. The SUDS features associated with the proposed development are not included within the design to avoid or reduce any potential harmful effects to any European sites.

Foul Water

72 Foul waters generated by the proposed development will discharge to the existing public sewer, which is pumped from West Pier and ultimately discharges to the Ringsend WWTP prior to discharge to Dublin Bay. The maximum contribution of foul waters (peak flow of 16.38 l/s) from the proposed development is 0.15% of the peak hydraulic capacity at Ringsend WWTP.

73 Foul water, comprising sewage and industrial effluent (and some surface water run-off), from the Dublin area has historically been, and will continue to be, treated at Ringsend WWTP prior to discharge to Dublin Bay. The most recent information from Irish Water indicates that the plant is operating above its capacity of 1.64 million P.E. (Irish Water, 2017), with a current operational loading of c.2.2 million P.E. Ringsend WWTP operates under a discharge licence from the EPA (D0034-01) and must comply with the licence conditions.

74 Despite the capacity issues associated with the Ringsend WWTP, the Liffey Estuary Lower and Dublin Bay are currently classified by the EPA as being of "Unpolluted" water quality status[19]. The Tolka Estuary is currently classified by the EPA as being "Potentially Eutrophic". The pollutant content of future foul water discharges to Dublin Bay is considered likely to decrease in the long-term for the following reasons:

- An Bord Pleanála granted planning permission for an upgrade to the Ringsend WWTP in April 2019[20], which will increase capacity at the plant, and
- There is a commitment in the National Development Plan 2021-2030[21] to invest in and progress the Greater Dublin Drainage Project which will involve the provision of a new regional wastewater treatment plant at a site in the northern part of the Greater Dublin Area and the provision of a new Orbital Drainage Sewer linking the new plant to the existing regional sewer network, which will enable future connections for identified areas of development within the catchment area. The provision of the Greater Dublin Drainage Project will augment the waste water treatment capacity currently provided by Ringsend WWTP across the Greater Dublin Area.

75 It is also an objective of the Greater Dublin Strategic Drainage Study, and all development plans within the catchment of Ringsend WWTP, to include Sustainable Urban Drainage Systems (SUDS) within new developments. The relevant development plans also have protective policies/objectives in place to protect water quality in the receiving freshwater and marine environments, and to implement the Water Framework Directive in achieving good water quality status for Dublin Bay.

Considering the above, particularly the current unpolluted status of Dublin Bay, it is concluded that the proposed development will not impact on the overall water quality status of Dublin Bay.

[19] Transitional and Coastal Surface Water Quality data (2010-2012) accessed from the EPA Envision Mapviewer www.gis.epa.ie/Envision (accessed July 2021)

[20] An Bord Pleanála Case Reference PL29S.301798 – *10-year permission for development of the Ringsend wastewater treatment plant upgrade project including a regional bio solids storage facility*, Available online at www.pleanala.ie/casenum/301798.htm.

[21] Government of Ireland (2021) *Project Ireland 2040, National Development Plan 2021-2030.*

76 Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, Dublin Bay as a result of foul water discharges.

In Combination

77 There is potential for "*in-combination*" effects on water quality in Dublin Bay from any other projects carried out within the functional areas of the *Dublin City Development Plan 2016-2022* (Dublin City Council, 2016), the *Dún Laoghaire-Rathdown County Development Plan 2016-2022* (Dún Laoghaire-Rathdown County Council, 2016), the *Fingal Development Plan 2017-2023* (Fingal County Council, 2017), *South Dublin County Council Development Plan 2016-2022* (South Dublin County Council, 2016), or any other land use plans which could influence conditions in Dublin Bay via rivers and other surface water features.

78 The Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031[22] (Eastern & Midland Regional Assembly, 2019) includes a range of policy objectives relevant to the protection of European sites and the protection of water quality in Dublin Bay, to which the relevant planning authorities must have regard to in the preparation and adoption of their development plans (included in Appendix II).

79 The planning authority for the proposed development is Dun Laoghaire-Rathdown County Council. Plans and developments within Dun Laoghaire-Rathdown County Council must comply with the following policy objectives of the Dun Laoghaire-Rathdown County Development Plan 2016 – 2022 relevant to the protection of European sites and the protection of water quality in Dublin Bay:

Policy LHB19: Protection of Natural Heritage and the Environment

80 It is Council policy to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas, candidate Special Areas of Conservation, proposed Natural Heritage Areas and Ramsar sites - as well as non-designated areas of high nature conservation value which serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive.

Policy LHB20: Habitats Directive

81 It is Council policy to ensure the protection of natural heritage and biodiversity, including European sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

Policy LHB22: Designated Sites

82 It is Council policy to protect and preserve areas designated as proposed Natural Heritage Areas, candidate Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

Policy EI2: Wastewater Treatment and Appropriate Assessment

83 It is Council policy to provide adequate wastewater treatment facilities to serve the existing and future population of the County, subject to complying with the Water Framework Directive and the associated River Basin Management Plan or any updated version of this document, 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document, Pollution Reduction Programmes for Designated Shellfish Areas, the Urban Waste Water Treatment Directive and the Habitats Directive.

Policy EI3: Surface Water Drainage and Appropriate Assessment

84 It is Council policy to require that a Sustainable Drainage System (SuDS) is applied to any development and that site specific solutions to surface water drainage systems are developed, which meet the requirements

[22] *Eastern & Midland Regional Assembly (2019) Regional Spatial & Economic Strategy 2019-2031*

of the Water Framework Directive and the associated River Basin Management Plans and 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document.

85 Plans and developments within the other local authority areas which could influence conditions in Dublin Bay via rivers and other surface water features, also must comply with the policies and objectives relevant to the protection of European sites and water quality. These include the *Dublin City Development Plan 2016-2022*, the *Fingal Development Plan 2017-2023*, the *South Dublin County Council Development Plan 2016-2022*, the *Kildare County Development Plan 2017-2023* (Kildare County Council, 2017) and the *Wicklow County Development Plan 2016-2022* (Wicklow County Council, 2016). The relevant policies and objectives in those plans for the protection of European sites and water quality are included in Appendix II.

86 In conclusion, there are a number of projects referred to above which will upgrade the capacity of Ringsend WWTP which will, over time, address the capacity issues at Ringsend WWTP referred to above.

87 As noted under the surface water and foul water sections above, Dublin Bay is currently unpolluted and the proposed development will not result in any measurable effect on water quality in Dublin Bay. There are also protective policies and objectives in place at a strategic planning level to protect water quality in Dublin Bay.

88 Therefore, and having regard to the policies and objectives referred to under the relevant development plans, it is concluded that the possibility of any other plans or projects acting in combination with the proposed development to give rise to significant effects on any European site in, or associated with, Dublin Bay can be excluded.

3.3.3 Habitat degradation as a result of hydrogeological impacts

89 The proposed development lies within the Kilcullen Groundwater Body (GWB). The only European site within the Kilcullen GWB that is designated for groundwater dependant habitats and/or species is the Glenasmole Valley SAC. Petrifying springs is the main Qualifying Interest habitat for this European site which is dependent upon the existing condition and functioning of the groundwater regime. As the proposed development will not interact directly with the underlying groundwater body, and lies down gradient of the Glenasmole Valley SAC, it cannot influence groundwater conditions in the European site.

90 Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of any European sites, either alone or in combination with any other pans or projects, as a result of hydrogeological effects.

3.3.4 Habitat degradation as a result of introducing/spreading non-native invasive species

91 The proposed development site supports population of two non-native invasive species, namely *Hyacinthoides hispanica* and *Allium triquetrum*. Both of these species are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011. Because of the considerable distance between the proposed development and any terrestrial European site (these species can only survive in terrestrial habitats), these two non-native invasive species pose no risk to any European sites within the vicinity of, or downstream of, the development site.

3.3.5 Disturbance and displacement impacts

92 Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the proposed development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m[23]. For birds, disturbance effects would not be expected to extend beyond

[23] This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes and Guidelines for the Treatment of Badgers prior to the Construction of National

a distance of c.300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance.[24] There are no European sites within the disturbance ZoI, however, the next nearest European site to the proposed development site, South Dublin Bay SPA, is at the very limit of the disturbance ZoI for birds, being c.300m north of the proposed development site.

93 The Carysfort-Maretimo Stream may support populations of Annex II species such as otter, Atlantic salmon, and to a lesser extent white-clawed crayfish. However, these local populations (if present) are not QI SAC populations, as the development site is not hydrologically connected to European sites designated for these species (i.e. the Carysfort-Maretimo Stream is not located within the same river catchment that supports any SAC population of otter, Atlantic salmon or white-clawed crayfish).

94 Common porpoise is a Qualifying Interest (QI) species for the Rockabill to Dalkey Island SAC, located *c*. 5.4km east of the proposed development. Therefore, common porpoise populations occurring downstream of the proposed development site in Dublin Bay are considered to form part of the SAC population of this species. However, considering that the site is *c*. 300m south of Dublin Bay, and *c*. 5.4km west of the SAC itself (well outside of the disturbance ZoI of the proposed development site for mammals), and furthermore given the wide-ranging area within Dublin Bay which the population can utilise, no likely negative impacts on SAC populations of common porpoise will occur.

95 The subject lands may potentially be used by special conservation interest species (SCI) of European sites as the proposed development is within the normal foraging range of SCI species of North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA and Howth Head Coast SPA as well as due to the mobile nature of SCI species. However, only one SCI species of these SPAs were recorded within the proposed development site, namely black-headed gull, which is an SCI species for the North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA. Individual birds were observed flying over the lands during the surveys in 2018. Black-headed gulls are typically associated with coastal areas, ploughed fields and towns outside of the breeding season. However the site has very limited habitat suitability for black-headed gulls. Considering the lack of suitable habitat for the species within the site and that no individuals were recorded using the site for foraging and/or roosting, the proposed development will not result in displacement of SCI populations of black-headed gull, or any other SCI species, for which there are European sites designated within the vicinity of the proposed development.

As the proposed development will not result in the disturbance/displacement of the qualifying/special conservation interest species of any European site, there is no potential for any in combination effects to occur in that regard.

3.3.6 Summary

96 The potential impacts associated with the proposed development do not have the potential to affect the receiving environment and, consequently, do not have the potential to affect the conservation objectives supporting the qualifying interest/special conservation interests of any European sites. Therefore, there is no possibility that the proposed St. Teresa's SHD will have significant effects on any European sites.

97 As the proposed development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites, and taking into account the policies and objectives of the statutory plans referred to

Road Schemes) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual ZoI of construction related disturbance likely to be much less in reality.

[24] The disturbance zone of influence for waterbirds is based on the relationship between the noise levels generated by general construction traffic/works (BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise) and the proximity of those noise levels to birds – as assessed in Cutts, N. Phelps, A. & Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance*, and Wright, M., Goodman, P & Cameron, T. (2010) Exploring Behavioural Responses of Shorebirds to Impulsive Noise. *Wildfowl* (2010) 60: 150–167. At 300m, noise levels are below 60dB or, in most cases, are approaching the 50dB threshold below which no disturbance or displacement effects would arise.

above, it is concluded that there is no potential for any other plan or project to act in combination with it to result in significant effects on any European sites.

98 The potential impacts of the proposed development on the receiving environment, their ZoI, and the European sites at risk of significant effects are summarised in Table 1 below. In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

Table 1 Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects	**Are there any European sites within the ZoI of the proposed development?**
Habitat loss Habitat loss will be confined to the lands within the proposed development boundary.	No There are no European sites within the proposed development boundary
Habitat degradation as a result of hydrological impacts Habitats and species downstream of the proposed development site and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.	No There are no European sites at risk of hydrological effects associated with the proposed development
Habitat degradation as a result of hydrogeological impacts Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.	No There are no European sites at risk of hydrogeological effects associated with the proposed development
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the proposed development site.	No There is no risk of spread/introduction of non-native invasive species from the proposed development site to any European sites in the vicinity of the site
Disturbance and displacement impacts Potentially up to several hundred metres from the proposed development boundary, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the proposed development, taking into account the sensitivity of the qualifying interest species to disturbance effects	No There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the proposed development

4 Conclusions of Screening Assessment Process

99 Following an examination, analysis and evaluation of the best available information, and applying the precautionary principle, it can be concluded that the possibility of any significant effects on any European sites, whether arising from the project alone or in combination with other plans and projects, can be excluded, for the reasons set out in Section 3.3 above. In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.

100 Therefore, it is the professional opinion of the authors of this report that the application for consent for the proposed development does not require an Appropriate Assessment or the preparation of a Natura Impact Statement (NIS).

Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1)

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	**Location Relative to the Proposed Development Site**
Special Area of Conservation (SAC)	
North Dublin Bay SAC [000206] 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 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) 1395 Petalwort *Petalophyllum ralfsii* 1410 Mediterranean salt meadows (*Juncetalia maritimi*) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) 2190 Humid dune slacks *S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019* NPWS (2013) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	c.5.4km north of the proposed development
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 *S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019* NPWS (2013) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	c.300m north of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Baldoyle Bay SAC [000199] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) 1410 Mediterranean salt meadows (*Juncetalia maritimi*) *S.I. No. 472/2021 - European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021* NPWS (2012) *Conservation Objectives: Baldoyle Bay SAC 000199.* Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht	c.11km north of the proposed development
Howth Head SAC [000202] 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths *S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021* NPWS (2016) *Conservation Objectives: Howth Head SAC 000202.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	c.9.2km north-east of the proposed development
Rockabill to Dalkey Island SAC [003000] 1170 Reefs 1351 Harbour porpoise *Phocoena phocaena* *S.I. No. 94/2019 - European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019* NPWS (2013) *Conservation Objectives: Rockabill to Dalkey Island SAC 003000.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	c.5.4km east of the proposed development
Glenasmole Valley SAC [001209] 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) 7220 Petrifying springs with tufa formation (*Cratoneurion*)* *S.I. No. 345/2021 - European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021* NPWS (2021) *Conservation objectives for Glenasmole Valley SAC [001209].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.13.5km west of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Ireland's Eye SAC [002193] 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts *S.I. No. 501/2017 - European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017* NPWS (2017) *Conservation Objectives: Ireland's Eye SAC 002193.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	c.13.5km north of the proposed development
Bray Head SAC [000714] 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths *S.I. No. 620/2017 - European Union Habitats (Bray Head Special Area of Conservation 000714) Regulations 2017* NPWS (2017) *Conservation Objectives: Bray Head SAC 000714.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	c.12.4km south of the proposed development
Wicklow Mountains SAC [002122] 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with *Erica tetralix* 4030 European dry heaths 4060 Alpine and Boreal heaths 6130 *Calaminarian* grasslands of the *Violetalia calaminariae* 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 (*Androsacetalia alpinae* and *Galeopsietalia ladani*) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 91A0 Old sessile oak woods with *Ilex* and Blechnum in the British Isles 1355 *Lutra lutra* (Otter)	c.9.7km south of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
NPWS (2017) *Conservation Objectives: Wicklow Mountains SAC 002122.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	
Knocksink Wood SAC [000725] 7220 Petrifying springs with tufa formation (Cratoneurion)* 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)* *S.I. No. 93/2019 - European Union Habitats (Knocksink Wood Special Area Of Conservation 000725) Regulations 2019* NPWS (2021) *Conservation objectives for Knocksink Wood SAC [000725].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.9.6km south of the proposed development
Ballyman Glen SAC [000713] 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens *S.I. No. 92/2019 - European Union Habitats (Ballyman Glen Special Area Of Conservation 000713) Regulations 2019.* NPWS (2019) *Conservation Objectives: Ballyman Glen SAC 000713.* Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.	c.9.8km south of the proposed development
Special Protection Area (SPA)	
North Bull Island SPA [004006] A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A052 Teal *Anas crecca* A054 Pintail *Anas acuta* A056 Shoveler *Anas clypeata* A130 Oystercatcher *Haematopus ostralegus* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A144 Sanderling *Calidris alba* A149 Dunlin *Calidris alpina* A156 Black-tailed Godwit *Limosa limosa* A157 Bar-tailed Godwit *Limosa lapponica*	c.5.4km north of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
A160 Curlew *Numenius arquata* A162 Redshank *Tringa totanus* A169 Turnstone *Arenaria interpres* A179 Black-headed Gull *Chroicocephalus ridibundus* A999 Wetlands & Waterbirds *S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.* NPWS (2015) *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
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 totanus* A179 Black-headed Gull *Chroicocephalus ridibundus* A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* A999 Wetland and Waterbirds *S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.* NPWS (2015) *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.	c.300m north of the proposed development
Baldoyle Bay SPA [004016] A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A137 Ringed Plover *Charadrius hiaticula* A140 Golden Plover *Pluvialis apricaria*	c.11.1km north of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
A141 Grey Plover *Pluvialis squatarola* A157 Bar-tailed Godwit *Limosa lapponica* A999 Wetland and Waterbirds *S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.* NPWS (2013) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Wicklow Mountains SPA [004040] A098 Merlin *Falco columbarius* A103 Peregrine *Falco peregrinus* *S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.* NPWS (2021) *Conservation objectives for Wicklow Mountains SPA [004040].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.9.9km south of the proposed development
Ireland's Eye SPA [004117] A017 Cormorant *Phalacrocorax carbo* A184 Herring Gull *Larus argentatus* A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* *S.I. No. 240/2010 - European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010.* NPWS (2021) *Conservation objectives for Ireland's Eye SPA [004117].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.13.1km north-east of the proposed development
Howth Head Coast SPA [004113] A188 Kittiwake *Rissa tridactyla* *S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.* NPWS (2021) *Conservation objectives for Howth Head Coast SPA [004113].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.10.7km north-east of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Dalkey Islands SPA [004172] A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* *S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010.* NPWS (2021) *Conservation objectives for Dalkey Islands SPA [004172].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.5.5km south-east of the proposed development

Appendix II

Planning polices/objectives relating to the protection of European sites and water quality

Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031
Regional Policy Objective 3.4 Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest. **Regional Policy Objective 7.2** To achieve and maintain 'Good Environmental Status' for marine waters and to ensure the sustainable use of shared marine resources in the Region, and to promote the development of a cross-boundary and cross-border strategic management and stakeholder engagement framework to protect the marine environment. **Regional Policy Objective 7.10** Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and local authority land use plans. **Regional Policy Objective 7.11** For water bodies with 'high ecological status' objectives in the Region, local authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and areas 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region. **Regional Policy Objective 7.12** Future statutory land use plans shall include Strategic Flood Risk Assessment (SFRA) and seek to avoid inappropriate land use zonings and development in areas at risk of flooding and to integrate sustainable water management solutions (such as SuDS, nonporous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities. **Regional Policy Objective 7.15** Local authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned. **Regional Policy Objective 7.16** Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and local authority development plans. **Regional Policy Objective 7.22** Local authority development plan and local area plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks and protected species. **Regional Policy Objective 10.6** Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network. **Regional Policy Objective 10.7** Local authority core strategies shall demonstrate compliance with DHPLG Water Services Guidelines for local authorities and demonstrate phased infrastructure – led growth that is commensurate with the carrying

capacity of water services and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

Regional Policy Objective 10.10

Support Irish Water and the relevant local authorities in the Region to eliminate untreated discharges from settlements in the short term, while planning strategically for long term growth in tandem with Project Ireland 2040 and in increasing compliance with the requirements of the Urban Waste Water Treatment Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and to 100% by 2040.

Regional Policy Objective 10.11

EMRA supports the delivery of the waste water infrastructure set out in Table 10.2, subject to appropriate environmental assessment and the planning process.[25]

Regional Policy Objective 10.12

Development plans shall support strategic wastewater treatment infrastructure investment and provide for the separation of foul and surface water networks to accommodate the future growth of the Region.

Regional Policy Objective 10.15

Support the relevant local authorities (and Irish Water where relevant) in the Region to improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment and in the development and provision at a local level of Sustainable Urban Drainage solutions.

Regional Policy Objective 10.16

Implement policies contained in the Greater Dublin Strategic Drainage Study (GDSDS), including SuDS.

Regional Policy Objective 10.18

Local authorities shall ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans.

Dún Laoghaire-Rathdown County Development Plan 2016-2022

Policy LHB19: Protection of Natural Heritage and the Environment

It is Council policy to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas, candidate Special Areas of Conservation, proposed Natural Heritage Areas and Ramsar sites - as well as non-designated areas of high nature conservation value which serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive.

Policy LHB20: Habitats Directive

It is Council policy to ensure the protection of natural heritage and biodiversity, including European sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

Policy LHB22: Designated Sites

It is Council policy to protect and preserve areas designated as proposed Natural Heritage Areas, candidate Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

Policy EI2: Wastewater Treatment and Appropriate Assessment

It is Council policy to provide adequate wastewater treatment facilities to serve the existing and future population of the County, subject to complying with the Water Framework Directive and the associated River Basin Management Plan or any updated version of this document, 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document, Pollution Reduction Programmes for Designated Shellfish Areas, the Urban Waste Water Treatment Directive and the Habitats Directive.

Policy El3: Surface Water Drainage and Appropriate Assessment

[25] The Greater Dublin Drainage Project, the Ringsend Wastewater Treatment Plant Project, the Athlone Main Drainage Project and the Upper Liffey Valley Sewerage Scheme

It is Council policy to require that a Sustainable Drainage System (SuDS) is applied to any development and that site specific solutions to surface water drainage systems are developed, which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans and 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document.

Fingal Development Plan 2017-2023

Objective NH10

Ensure that the Council takes full account of the requirements of the Habitats and Birds Directives, as they apply both within and without European Sites in the performance of its functions.

Objective NH11

Ensure that the Council, in the performance of its functions, takes full account of the objectives and management practices proposed in any management or related plans for European Sites in and adjacent to Fingal published by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Objective NH15

Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.

Objective SW04

Require the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques where appropriate, for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.

Objective WQ01

Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.

Objective WQ04

Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.

Objective WT01

Liaise with and work in conjunction with Irish Water during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in all towns and villages of the County to serve existing populations and facilitate sustainable development of the County, in accordance with the requirements of the Settlement Strategy and associated Core Strategy.

Objective WT02

Liaise with Irish Water to ensure the provision of wastewater treatment systems in order to ensure compliance with existing licences, EU Water Framework Directive, River Basin Management Plans, the Urban Waste Water Directive and the EU Habitats Directive.

South Dublin County Council Development Plan 2016-2022

HCL12 Objective 1

To prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the County and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive.

HCL12 Objective 2

To ensure that projects that give rise to significant direct, indirect or secondary impacts on Natura 2000 sites, either individually or in combination with other plans or projects, will not be permitted unless the following is robustly demonstrated in accordance with Article 6(4) of the Habitats Directive and S.177AA of the Planning and Development Act (2000 – 2010) or any superseding legislation:

1. There are no less damaging alternative solutions available; and

2. There are imperative reasons of overriding public interest (as defined in the Habitats Directive) requiring the project to proceed; and

3. Adequate compensatory measures have been identified that can be put in place.

IE Policy 1 Water & Wastewater

It is the policy of the Council to work in conjunction with Irish Water to protect existing water and drainage infrastructure and to promote investment in the water and drainage network to support environmental protection and facilitate the sustainable growth of the County.

IE1 Objective 1

To work in conjunction with Irish Water to protect, manage and optimise water supply and foul drainage networks in the County.

IE1 Objective 2

To work in conjunction with Irish Water to facilitate the timely delivery of ongoing upgrades and the expansion of water supply and wastewater services to meet the future needs of the County and the Region.

IE Policy 2 Surface Water & Groundwater

It is the policy of the Council to manage surface water and to protect and enhance ground and surface water quality to meet the requirements of the EU Water Framework Directive.

IE2 Objective 1

To maintain, improve and enhance the environmental and ecological quality of our surface waters and groundwater by implementing the programme of measures set out in the Eastern River Basin District River Basin Management Plan.

IE2 Objective 3

To maintain and enhance existing surface water drainage systems in the County and promote and facilitate the development of Sustainable Urban Drainage Systems (SUDS), including integrated constructed wetlands, at a local, district and County level, to control surface water outfall and protect water quality.

IE2 Objective 4

To incorporate Sustainable Urban Drainage Systems (SUDS) as part of Local Area Plans, Planning Schemes, Framework Plans and Design Statements to address the potential for Sustainable Urban Drainage at a site and/or district scale, including the potential for wetland facilities.

IE2 Objective 5

To limit surface water run-off from new developments through the use of Sustainable Urban Drainage Systems (SUDS) and avoid the use of underground attenuation and storage tanks.

IE2 Objective 6

To promote and support the retrofitting of Sustainable Urban Drainage Systems (SUDS) in established urban areas, including integrated constructed wetlands.

Appendix III

Records of SCI species from the desktop study in the vicinity of the study area

Common Name/ Scientific Name	Legal Status[26]	Red List Status[27]	Source
Birds			

[26] HD_II/IV/V = Habitats Directive Annexes II/IV/V; WA = Wildlife Acts; BD_I/II/III = Birds Directive Annex I/II/III; OSPAR = Convention for the protection of the marine environment of the North-east Atlantic 1992

[27] Birds from Gilbert, G., Stanbury, A. & Lewis, L. (2021) Birds of Conservation Concern in Ireland 4: 2020-2026. *Irish Birds* 43: 1-22.

Common Name/ Scientific Name	Legal Status[26]	Red List Status[27]	Source
Black-headed gull *Chroicocephalus ridibundus*	WA	Amber	NBDC online database record
Common coot *Fulica atra*	WA	Red	NBDC online database record
Common redshank *Tringa totanus*	WA	Red	NBDC online database record
Great cormorant *Phalacrocorax carbo*	WA	Amber	NBDC online database record
Herring gull *Larus argentatus*	WA	Amber	NBDC online database record
Lesser black-backed gull *Larus fuscus*	WA	Amber	NBDC online database record
Hen harrier *Falco peregrinus*	BD_I, WA	Amber	NBDC online database record
Light-bellied brent goose *Branta bernicla hrota*	WA	Amber	NBDC online database record
Eurasian oystercatcher *Haematopus ostralegus*	WA	Red	NBDC online database record
Ringed plover *Charadrius hiaticula*	WA	Amber	NBDC online database record
Grey plover *Pluvialis squatarola*	WA	Red	NBDC online database record
Red knot *Calidris canutus*	WA	Red	NBDC online database record
Sanderling *Calidris alba*	n/a	Green	NBDC online database record
Dunlin *Calidris alpina*	BD_II (II), WA	Red	NBDC online database record
Bar-tailed godwit *Limosa lapponica*	BD_I, WA	Red	NBDC online database record
Roseate tern *Sterna dougallii*	BD_I, WA	Amber	NBDC online database record
Common tern *Sterna hirundo*	BD_I, WA	Amber	NBDC online database record

Common Name/ Scientific Name	Legal Status[26]	Red List Status[27]	Source
Arctic tern *Sterna paradisaea*	BD_I, WA	Amber	NBDC online database record
Common shelduck *Tadorna tadorna*	WA	Amber	NBDC online database record
Eurasian teal *Anas crecca*	BD_II (I), III (II), WA	Amber	NBDC online database record
Northern pintail *Anas acuta*	BD_II (I), III (II), WA	Amber	NBDC online database record
Northern shoveler *Anas clypeata*	BD_II (I), III (III), WA	Red	NBDC online database record
European golden plover *Pluvialis apricaria*	BD_I, II (II), III (III), WA	Red	NBDC online database record
Black-tailed godwit *Limosa limosa*	WA	Red	NBDC online database record
Eurasian curlew *Numenius arquata*	BD_II (II), WA	Red	NBDC online database record
Ruddy turnstone *Arenaria interpres*	n/a	Amber	NBDC online database record
Kittiwake *Rissa tridactyla*	WA	Red	NBDC online database record
Merlin *Falco columbarius*	BD_I, WA	Amber	NBDC online database record