Screening for Appropriate Assessment for a Strategic Housing Development at a site of approx. 2.74 ha at 'Saint Joseph's House' and adjoining properties at Brewery Road and Leopardstown Road, Dublin 18.

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Contents

1. Introduction

This report, which contains information to undertake a screening for Appropriate Assessment (AA), has been prepared by Wildlife Surveys Ltd. on behalf of the applicant – Homeland Silverpines Ltd. It provides information on, and assesses the potential for, the Proposed Development to impact on the Natura 2000 network (or European sites). This proposal is for a strategic housing development at a site of approx. 2.74 ha at 'Saint Joseph's House' and adjoining properties at Brewery Road and Leopardstown Road, Dublin 18. The site consists of (1) 'Saint Joseph's House', Brewery Road, Stillorgan, Co. Dublin (A94 Y7F4); (2) 'Madona House', Silverpines, Stillorgan, Blackrock, Co. Dublin (A94 Y230); and (3) Properties at 'Woodleigh' (D18 F3F4), 'Cloonagh' (D18 P5P9), 'Souk El Raab' (D18 Y6C5), 'Wellbrook' (D18 H0C6), 'Calador' (D18 W1Y2), 'Alhambra' (D18 E3C4), 'Dalwhinnie' (D18 P2P4), 'Annaghkeen' (D18 Y2W1) and 'The Crossing' (D18 W8 W2); all located at Leopardstown Road, Dublin 18.

The development will consist of a new residential and mixed use scheme to include apartments, residential amenity space, a café and a childcare facility. A detailed description is now set out as follows:

The proposal provides for the demolition of 10 no. properties and associated outbuildings at 'Madona House' (single storey), 'Woodleigh' (2 storeys), 'Cloonagh' (2 storeys), 'Souk El Raab (2 storeys), 'Wellbrook' (2 storeys), 'Calador' (2 storeys), 'Alhambra' (2 storeys), 'Dalwhinnie' (2 storeys), 'Annaghkeen' (1-2 storeys) and 'The Crossing' (single storey) (combined demolition approx. 2,291.3 sq m GFA).

The new development will provide for (a) the refurbishment, separation and material change of use of Saint Joseph's House (a Protected Structure, RPS No. 1548) from residential care facility to residential use and a childcare facility; and (b) the construction of a new build element to provide for an overall total of 463 no. residential units, residential amenity space and a café.

The extent of works proposed to Saint Joseph's House (a Protected Structure) include:

• The demolition of a single storey office, conservatory, glazed link, external store, external enclosed escape stairs with associated canopies, toilet extension and 3 no. associated outbuildings to the west of Saint Joseph's House (demolition total approx. 173.4 sq m GFA);

• The removal of external steel gates, all external steel escape stairs, canopies, existing disabled access ramps, concrete steps, an external wall and associated roof area;

• Relocation of external granite steps and the provision of a new raised entrance terrace, concrete steps and ramp areas;

• Replacement of existing rooflights, the addition of roof lights, part new roof / new zinc roof, new external wall and roof to the east of the structure;

• The provision of new door and window openings;

• Modifications to internal layout including the removal of walls and partitions and the addition of new dividing walls.

The associated site and infrastructural works include provision for water services; foul and surface water drainage and connections; waste water pumping station; attenuation proposals; permeable paving; all landscaping works including tree protection, tree removal and new tree planting; green roofs; boundary treatment; internal roads and footpaths; and electrical services.

1.1. Statement of Authority

Wildlife Surveys Ireland Ltd. undertake ecological assessments for all possible requirements including Environmental Impact Assessment, Natura Impact Statements, Biodiversity Studies, County Council Maintenance works amongst others.

Brian Keeley is a Science graduate of University College Dublin and has been an ecological consultant for 23 years and has been undertaking ecological surveys for 32 years. Brian specialises in vertebrate studies including bats and ground mammals and birds and has undertaken work throughout Ireland for private individuals, organisations, developers, county councils and state authorities.

Malgorzata (Goska) Wilkowska is a graduate of Adam Mickiewicz University and undertook further studies to acquire a Masters in Science in Poznan, Poland in Environmental Biology and an Environmental Protection and Shaping Postgraduate Course in Wroclaw University. Goska specialises in habitat and botanical assessment and has worked with Westmeath County Council in producing the Biodiversity Action Plan 2014 - 2020 and has undertaken surveys for road projects in addition to extensive ecological work for the Irish Wildlife Trust and Nature's PATCH Network.

1.2. National commitments to floral and faunal protection

All of the countries of the European Union have committed to a strict system of protection and regulation of the natural environment. This has a consequence for all planning decisions and options and there is a responsibility on planning authorities to assess the implications of development on species rare or threatened in the national and EU context in addition to worldwide commitments under such agreements as CITES.

Ecological Impact Assessment (EcIA) and Appropriate Assessment (AA) and the process of Natura Impact Statement (NIS) are undertaken to ensure that all of the potential predictable impacts of any proposed changes or developments are documented and evaluated. This is in order that there is a cumulative account of the direct and indirect impacts of Proposed Development on the site itself and on the biodiversity of sites with national and EU protection.

Biodiversity is a relatively recently derived term to enshrine the concept that there is an enormous diversity to biological life on the planet that interacts in measurable and immeasurable ways and that introduces an inter-dependency of species. This includes many aspects of human agriculture and environment and the protection of biological diversity is an indirect measure to protect the biotic (and abiotic) factors that contribute to human health and environment. The level of impact varies from negligible to severe and from brief or short term to permanent and may only be identifiable when all events or proposals within an immediate area are considered.

The Habitats Directive (92/43/EEC) seeks to safeguard the long-term survival of Europe's most valuable and threatened species and habitats. The geographical areas of particular importance to these species and habitats have been selected as Special Areas of Conservation (SAC) and Special Protection Areas (SPA) which are collectively referred to (in Ireland) as European sites. Together, these sites comprise the pan-European Natura 2000 network of protected areas. The Habitats Directive (92/43/EEC) and the associated Birds Directive (2009/147/EC) are transposed into Irish legislation by Part XAB of the 2000 Act and the Birds and Natural Habitats Regulations 2011.

The Regulations were further amended in 2015 by the European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015 (S.I. No. 355 of 2015). As a consequence, all of the following are to be treated as a functioning unit: Wildlife Act 1976, Wildlife (Amendment) Acts of 2000, 2010 and 2012, European Communities (Birds and Natural Habitats) (Restrictions of the Use of Poison Bait) Regulations 2010, European Communities (Birds and Natural Habitats) Regulations 2011, European Communities (Birds and Natural Habitats) (Amendment) Regulations of 2013 and 2015.

The European Communities (Birds And Natural Habitats) Regulations 2011 require member states to designate areas of their territory that are important for certain listed habitats and species of mammals, amphibian, reptiles, birds, invertebrates and plants. These areas are known as Special Areas of Conservation (SAC) or in the case of birds; Special Protection Areas (SPA). SACs and SPAs in combination are referred to as the Natura 2000 network of protected sites.

The National Parks and Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage have responsibility for all protected sites and species as the competent national authority for the conservation of protected sites. The term decided upon as a measure of the protection afforded protected species is that they are maintained within 'favourable conservation status'.

The definitions for "favourable conservation status" of a habitat and of species differ slightly in text but not in sentiment and they are given below:

The favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis (NPWS, 2019).

Screening for appropriate assessment is intended to be an initial examination. It 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).

Significant effects on a European site are those which would negatively 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). The Screening for EIA and AA is carried out in the context of development control under Part XAB of the Planning and Development Act 2000 as amended.

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 an Appropriate Assessment

If the conclusions at the end of screening are that significant effects cannot be excluded, then Appropriate assessment is required before permission can be granted. A Natura Impact Statement (NIS) will be required in order for the project to proceed.

A "Natura Impact Statement" means a report comprising the scientific examination of a plan or project and the relevant European Site or European Sites, to identify and characterise any possible implications of the plan or project individually or in combination with other plans or projects in view of the conservation objectives of the site or sites, and any further information including, but not limited to, any plans, maps or drawings, scientific information or data required to enable the carrying out of an Appropriate Assessment.

Natural Heritage Areas (NHAs) are designated for conservation under national legislation and are of national importance and may serve to protect sites or species that are not of European concern. They may provide a greater level of protection for a site that does not qualify as a SAC or SPA.

A Natura Impact Statement (NIS) and AA provide sufficient information for the Planning Authorities to determine whether the Proposed Development will or won't have significant negative impacts upon a protected site (NHA or SAC / SPA).

2. Methodology

The Screening Assessment was carried out in accordance with the following methodologies and guidelines:

1. 'Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (Oxford Brookes, 2001). See below the flow chart explaining the process in Figure 1.
2. 'Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities' (DOEHLG 2009).
3. 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018)

Following the Oxford Brookes guidance, screening involves these four steps:

1. determining whether the project or plan is directly connected with or necessary to the management of a Natura 2000 site; (in the absence of mitigation measures proposed specifically for the protection of a Natura 2000 site)
2. describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site;
3. identifying the potential effects on the Natura 2000 site;
4. assessing the significance of any effects on the Natura 2000 site.

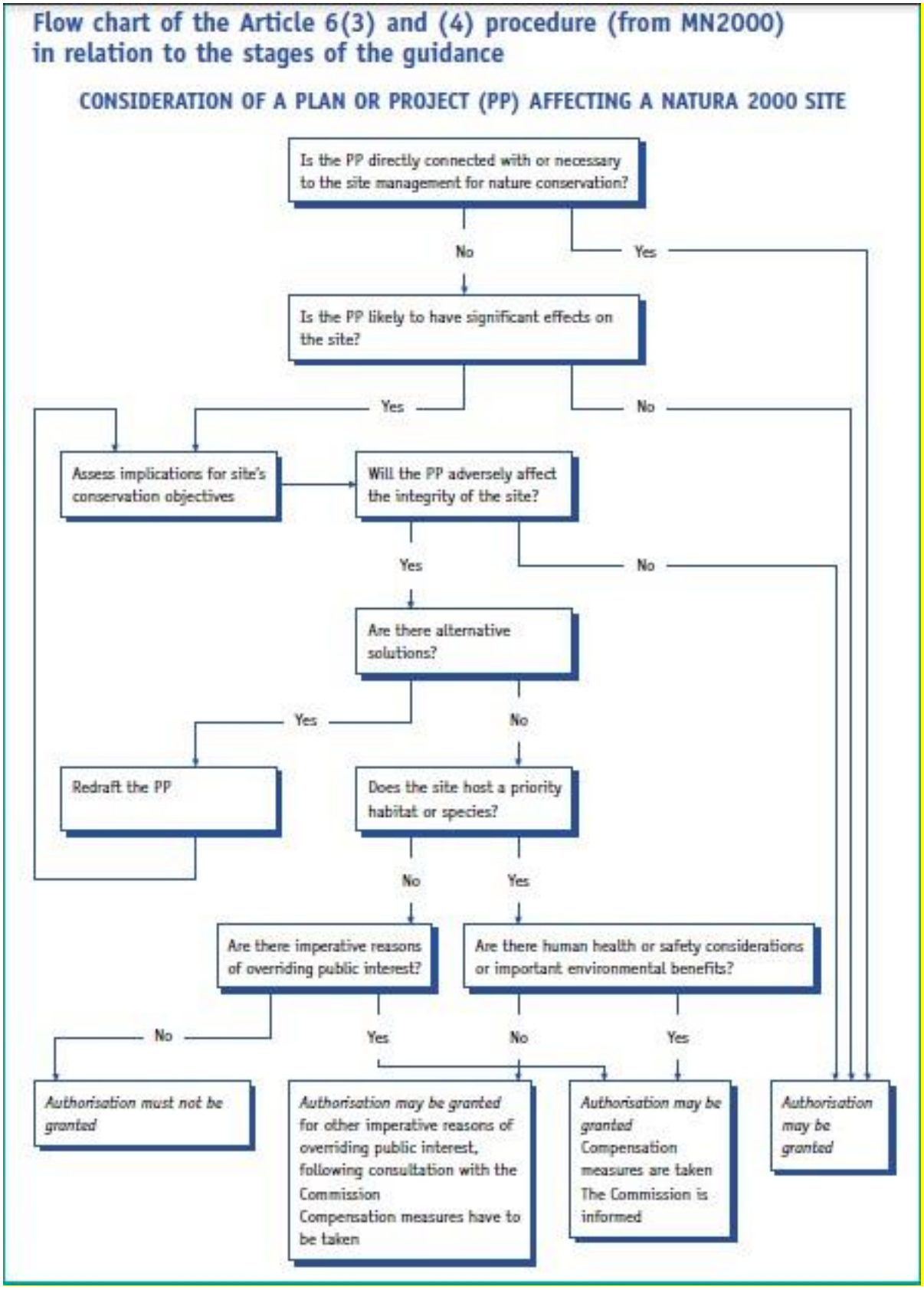

Figure 1.1. Flow chart indicating the steps required to consider for Appropriate Assessment Screening

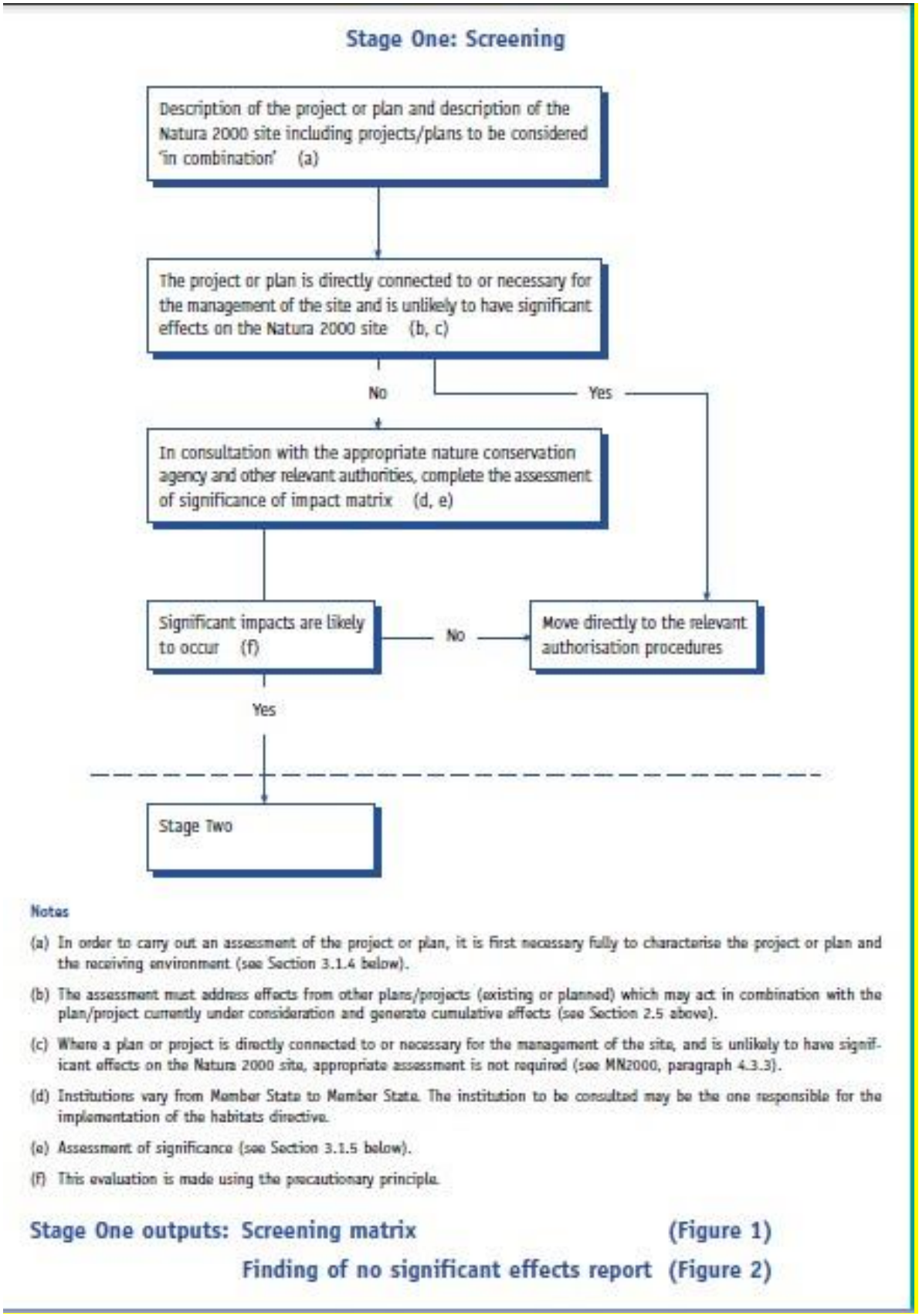

Figure 1.2. Flow chart indicating the steps required to consider for Appropriate Assessment Screening

The desktop data sources informing this assessment are as follows (accessed on the 30th April 2021):

1. Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie, including conservation objectives documents. The most recently available Natura 2000 GIS boundary data were SAC_ITM_2019_12 and SPA_ITM_2019_12.
2. Online data available on protected species from www.biodiversityireland.ie (National Biodiversity Data Centre – NBDC).
3. Information on the surface water network and surface water quality in the area from www.epa.ie (Environmental Protection Agency).
4. Information on groundwater resources and groundwater quality in the area from www.epa.ie (Environmental Protection Agency) and www.gsi.ie (Geological Survey Ireland).
5. Ordnance Survey of Ireland mapping and aerial photography from www.osi.ie .
6. Information on the location, nature and design of the Proposed Development supplied by the applicant's design team.
7. EIAR for the Proposed Development with relevant chapters.
8. Ecological surveys of the Proposed Development site carried out by Wildlife Surveys Ltd. between 2019 and 2021.

Ecological surveys (baseline surveys) were carried out to inform the assessment of likely significant effect on Natura 2000 sites.

Ecological surveys' dates are summarised in the table below (Table 2.1). General botanical and habitat surveys were conducted on several dates within the optimum period for undertaking botanical and habitat surveys. The number and timing of these surveys was appropriate according to Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. (CIEEM, 2018)

Habitats were assessed and evaluated according to their occurrence as protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened and endangered species. Botanical species were assessed in accordance with their occurrence on the Flora Protection Order (2015) and The Irish Red Data Book (Curtis & McGough, 1988).

The site was examined on a number of dates to provide information on the potential for ground mammals. All treelines and garden boundaries and patios were examined for mammal evidence. For badgers, the evidence sought includes paw prints, dung pits, latrines and the burrows dug by badgers for their underground homes: setts. There is no potential for otters within the site. Otter "holts" are sometimes associated with tree roots but may even be abandoned badger setts. Given the relatively isolated nature of this site, it was considered unlikely to serve as an otter shelter, Nonetheless, all signs of otters were sought including paw prints and spraints. Other protected mammal species were considered; however, given the fact that the site is surrounded by very busy roads, is devoid of waterbodies, woodland, wetlands, the likelihood of their presence in this area is limited with the exception of bats, which are dealt with below.

The site was examined by means of a dedicated bat survey in two periods of mid to late summer 2019; 10th July and 16th August and again on two separate dates in April 2021 (11th to 12th April and 18th to 19th April) and 10th and 11th June 2021 . These dates cover two separate phases in the life cycle of bats. The survey in June 2021 provides further update to the summer surveys of 2019. All buildings and trees were examined.

June, July and August are within a period when the young are born and maternity roosts are established. The young may be on the wing in July and August with some annual variation in their development. During these surveys, the site was walked by two surveyors (see below for June 2021) equipped with an Echometer 3 ultrasonic monitor which allows the recording and pinpointing of bat signals within the area. A static monitor (a Songmeter 2 Bat+) was placed within the site to the rear of the site in July and in line with the row of houses in August (a house named Souk el Raab). Surveying commenced immediately prior to sunset. All survey periods were highly suited to bat activity in 2019. The bat surveys were undertaken with reference to the following bat survey guidelines: Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins 2016, 3rd edition) and Kelleher, C. & Marnell, F. (2006) Bat Mitigation Guidelines for Ireland. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

All trees were assessed for their potential as roosts in June 2021 and visually inspected from ground level for any obvious features suitable as roost entry / exit points. All buildings were examined internally and externally for the presence of bats. This included an external search for bat droppings, staining, obvious access points (such as slipped slates, broken fascia, lead flashing gaps around chimneys). All attics were examined internally for evidence of bats including actual living bats, bat corpses, bat droppings and staining. Residents were questioned regarding any encounters with bats over their period of occupancy including seeing bats feeding or discovering bats within buildings.

The second phase of survey at the proposed development site was undertaken in April 2021- in a period when bats have exited hibernation but may enter into torpor regularly even during the night as temperatures range between suitable and unsuitable for foraging. In April 2021, the first survey date concentrated on a number of houses within the proposed development. The survey included internal inspection of all buildings proposed for demolition as part of the application on April 11th 2021. The remaining buildings (i.e. the buildings previously approved for demolition) in addition to St. Joseph's which will be renovated were all examined for the presence of bats or evidence of previous usage on April 18th 2021.

Another bat activity survey was undertaken around all buildings and within all gardens on 11th to 12th and 18th to 19th April 2021. This involved repeat active survey around all buildings by two surveyors equipped with EM3 monitors and the installation of a Songmeter Mini at one house (Calador) on 11th to 12th April before it was relocated to the final house of the site (The Crossing) from 12th April to 18th April 2021. The Mini was re-located on the boundary of Calador and Wellbrook at 21.30 hours. A third type of bat detector, a Songmeter 2 Bat was used for the second visit of April 18th 2021. This monitor was placed at St. Joseph's for the night of 18th April to 19th April.

A further bat survey was undertaken on 10th June 2021 by four surveyors to cover the entire site within a single visit to determine all bat occupancy and activity at any one time across the entire site. This involved a bat detector survey as previously and a ground-level examination of all trees for evidence of cavities, crevices, loose bark, sheltered areas provided by the meeting of branches, exposed root areas and all other spaces sufficient to house bats. A thermal imaging device was available to check all potential roost areas (a "Seek Thermal Reveal Pro").

As in all previous surveys, all buildings were examined externally for evidence of bat occupancy (droppings, staining etc.). Attics were not entered on this occasion as should bats be breeding within the attics, the disturbance may be severe from entry at this time in particular during the Covid 19 pandemic where the bats may be placed at risk from human contact.

Surveyors were stationed at each of four locations to cover the buildings for bat emergence and return. This included one surveyor at St. Joseph's, a second surveyor between The Crossing and Annaghkeen House, a surveyor between Alhambra, Dalwhinnie and Calador and a survey to cover the remaining houses (overlapping at Calador and covering Souk el Raab, Cloonagh and Woodleigh).

Surveyors were stationed at each of four locations to cover the buildings for bat emergence and return. This included one surveyor at St. Joseph's, a second surveyor between The Crossing and Annaghkeen House, a surveyor between Alhambra, Dalwhinnie and Calador.

All bat identification provided in the Results are based on the initial field identification from signals displayed on the EM3 screens or android phone screens using Echometer Touch2 Pro in the field and their later identification with Kaleidoscope Pro software. Signals recorded by static monitors were also analysed with Kaleidoscope Pro and checked manually where less common species were proposed by the automatic identification system.

Data on the bird fauna of the site was gathered during the visits to the site in July and August 2019 and during three further visits 11th to 12th April and 18th to 19th April 2021 and 10th to 11th June 2021. Bird surveying involved aural identification and visual identification of the birds encountered within the nesting period and towards the end of this period to determine the breeding species of this area. This was based on casual visual observations, birdsong, young birds (nestlings or fledglings) and if obvious, nests. Nests were not exposed to ensure that birds were not placed at risk. The entire site was walked covering all treelines , garden walls and shrubbery.

Table 2.1. Dates and weather conditions for surveys for habitats, flora and fauna in 2019 and 2021.

Date	Survey	Weather conditions	Constraints
10th July 2019	Botanical and Habitat	Occasional light rain	None
11th July 2019	Botanical and Habitat	As above	
10th July 2019	Bat and bird survey	Temperature 15°C, Light rain. Insect activity evident.	Suitable for bat survey
11th July 2019 (to sunrise)	Bat and bird survey	As above	None
8th August 2019	Botanical and Habitat	Dry and mild	None
16th August 2019	Bat and bird survey	Temperature 13°C, Occasional showers. Insect activity evident.	Suitable for bat survey
17th August 2019 (to dawn)	Bat and bird survey	As above	None
11th April 2021	Bat and bird survey	Temperature 8°C, Raining	Low bat activity but static monitor left in place over following nights. Survey included visual inspection of attics.

Date	Survey	Weather conditions	Constraints
15th April 2021	Botanical and Habitat	Dry	None
18th April 2021	Bat and bird survey	Temperature 11°C, Dry.	None
19th April 2021	Bat and bird survey	As above	
10thJune 2021	Bat and bird survey	Temperature 22°C dropping to 14°C,	None
11thJune 2021	Bat and bird survey	As above	None

3. Identification of Natura 2000 sites potentially affected

3.1 Description of the proposed project

The Proposed Development (see Figure 3.1) is a strategic housing development on a site of approx. (2.74 ha) at (1) 'Saint Joseph's House', Brewery Road, Stillorgan, Co. Dublin (A94 Y7F4); (2) 'Madona House', Silverpines, Stillorgan, Blackrock, Co. Dublin (A94 Y230); and (3) Properties at 'Woodleigh' (D18 F3F4), 'Cloonagh' (D18 P5P9), 'Souk El Raab' (D18 Y6C5), 'Wellbrook' (D18 H0C6), 'Calador' (D18 W1Y2), 'Alhambra' (D18 E3C4), 'Dalwhinnie' (D18 P2P4), 'Annaghkeen' (D18 Y2W1) and 'The Crossing' (D18 W8 W2); all located at Leopardstown Road, Dublin 18.

The development will consist of a new residential and mixed use scheme to include apartments, residential amenity space, a café and a childcare facility.

The proposal provides for the demolition of 10 no. properties and associated outbuildings at 'Madona House' (single storey), 'Woodleigh' (2 storeys), 'Cloonagh' (2 storeys), 'Souk El Raab (2 storeys), 'Welbrook' (2 storeys), 'Calador' (2 storeys), 'Alhambra' (2 storeys), 'Dalwhinnie' (2 storeys), 'Annaghkeen' (2 storeys) and 'The Crossing' (single storey) (combined demolition approx. 2,291.3 sq m GFA).

The new development will provide for (a) the refurbishment, separation and material change of use of Saint Joseph's House (a Protected Structure) from residential care facility to residential use and (b) the construction of a new build element to provide for an overall total of 463 no. residential units, residential amenity space, a café and a creche facility. The proposal provides for the following:

Block A (5 storeys) comprising 49 no. apartments (13 no. 1 bed units, 33 no. 2 bed units and 3 no. 3 bed units);

Block B (4 - 7 storeys) comprising 88 no. apartments (28 no. 1 bed units, 57 no. 2 bed units and 3 no. 3 bed units);

Block C (5 - 7 storeys) comprising 115 no. apartments (26 no. studio units, 26 no. 1 bed units and 57 no. 2 bed units and 6 no. 3 bed units);

Block D (5 - 10 storeys) comprising 157 no. apartments (36 no. studio unit, 38 no. 1 bed units and 83 no. 2 bed units) and residential amenity areas of approx. 743 sq m.

Block E (St. Joseph's House) (2 storeys) comprising 9 no. apartments (8 no. 2 bed units and 1 no. 3 bed units) and a creche facility of 282 sq m and associated outdoor play areas of approx. 130 sq m;

Block F (3 - 6 storeys) comprising 45 no. apartments (23 no. studio units, 10 no. 1 bed units; and 12 no. 2 bed units);

The works proposed to Saint Joseph's House (a Protected Structure) include the demolition of a single storey office, conservatory, glazed link and associated outbuildings (demolition total approx. 158 sq m GFA) and replacement of existing rooflights, the addition of roof lights, part new roof / new zinc roof.

Proposals for vehicular access comprise 1 no. existing vehicular access point via Silver Pines (an existing all movement junction onto Brewery Road) and 1 no. new vehicular access point at the general location of 'Annaghkeen' at Leopardstown Road (a new Left in Left Out junction arrangement). The new access point along Leopardstown Road will replace existing access points at 'Woodleigh', 'Cloonagh', 'Souk El Raab', 'Welbrook', 'Calador', 'Alhambra', 'Dalwhinnie', 'Annaghkeen' and 'The Crossing'. New pedestrian and cyclist linkages are proposed through the site which provide permeability to Leopardstown Road and the adjoining Greenway. Proposals also provide for the relocation of an existing bus shelter along Leopardstown Road.

Open Space (approx. 9,885 sq m) is proposed in the form of (a) public open space areas (approx. 6,680 sqm) which include a public plaza/court area, a main area of public open space (including a play area and outdoor gym area)and woodland trail; and (b) all communal open space areas (approx. 3,205 sq m) which include areas adjacent to Saint Joseph's House (Block E), Block D and Block F, a courtyard and play area located between Blocks A and B and roof terraces at fifth floor level of Blocks C and D. Visual amenity open space areas (approx. 1,000 sq m) are also proposed at various locations throughout the development.

The site of the Proposed Development comprises several houses with their gardens. The changes that will occur within the site include the following:

1. Demolition of almost all buildings, renovation of the remaining building (St. Joseph's House), removal of some of the existing trees and shrubs, removal of grassy areas.
2. Noise, dust and movement of activity and people during construction.
3. Construction of apartment buildings and roads through the site.
4. Increased density of people and vehicles.
5. Increased lighting.
6. New planting.

The associated site and infrastructural works include provision for water services; foul and surface water drainage and connections; attenuation proposals; permeable paving; all landscaping works including tree protection, tree removal and new tree planting; green roofs; boundary treatment; internal roads and footpaths; and electrical services.

The development will be served by 3 no separated surface water drainage sub-catchment areas. Each sub-catchment will be served by a gravity drainage network, with run-off attenuated in each catchment prior to discharging to the sewer on the Leopardstown Road or the sewer in Silver Pines.

The Proposed Development will be designed in accordance with the principles of Sustainable Drainage Systems (SuDS) as embodied in the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS) and will significantly reduce run-off rates and improve storm water quality discharging to the public storm water system. The GDSDS addresses the issue of sustainability by requiring designs to comply with a set of drainage criteria which aim to minimize the impact of urbanization by replicating the run-off characteristics of the greenfield site. The criteria provide a consistent approach to addressing the increase in both rate and volume of run-off, as well as ensuring the environment is protected from any pollution from roads and buildings.

A new foul drainage system will serve the development. It is proposed to provide 1 connection point which will accommodate the whole site and will connect into the sewer network in the Silverpines Estate via a pumping station which limits the flow rate to 5l/s. The proposed pipe network has been designed in accordance with the relevant requirements of the Irish Water Code of Practice for Wastewater Infrastructure. The Confirmation of feasibility and Statement of Design Acceptance regarding the foul drainage system was issued by Irish Water.

Figure 3.1. Proposed Development site (top, outlined in red) and Proposed Development (bottom).

3.2. Receiving environment

3.2.1 Natura 2000 sites within the Zone of Influence

Department of Environment, Heritage and Local Government (2009) Guidance on Appropriate Assessment recommends an assessment of European sites within a Zone of Influence (ZoI) of 15km. This distance is a guidance only and a zone of influence of a Proposed Development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source- Pathway-Receptor framework and not by arbitrary distances (such as 15 km). The Zone of Influence may be determined by connectivity to the Proposed Development in terms of:

1. Nature, scale, timing and duration of works and possible impacts, nature and size of excavations, storage of materials, flat/sloping sites;
2. Distance and nature of pathways (dilution and dispersion; intervening 'buffer' lands, roads etc.); and
3. Sensitivity and location of ecological features.

The potential for source pathway receptor connectivity is firstly identified and detailed information is then provided on sites with connectivity. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website (www.npws.ie) on the 20th April 2021.

Sixteen NATURA 2000 sites were identified within the Influence Zone of the Proposed Development site. The Proposed Development site is not located within or immediately adjacent to any European site (see Table 3.1. and Figure 3.2).

Although it is not part of the AA Screening, it is worthwhile to look at nationally protected sites. There are no Natural Heritage Areas (NHAs) within 15km of the Proposed Development site. However, there are several Proposed Natural Heritage Areas (pNHAs) within this distance. There is no possibility for significant effects on any of these sites by the Proposed Development. However, there is the Carrickmines Stream 850 m south from the site is hydrologically connected with Loughlinstown Woods pNHA and Dalkey Coastal Zone and Killiney Hill pNHA (see Figure 3.3). The Carrickmines stream does not adjoin the Proposed Development site, and the ground is sloping towards north-east (as stated in the report by IE Consulting ('Hydrological Assessment of proposed soakway'), therefore it would not be a pathway between the Proposed Development site and aforementioned proposed National Heritage Areas.

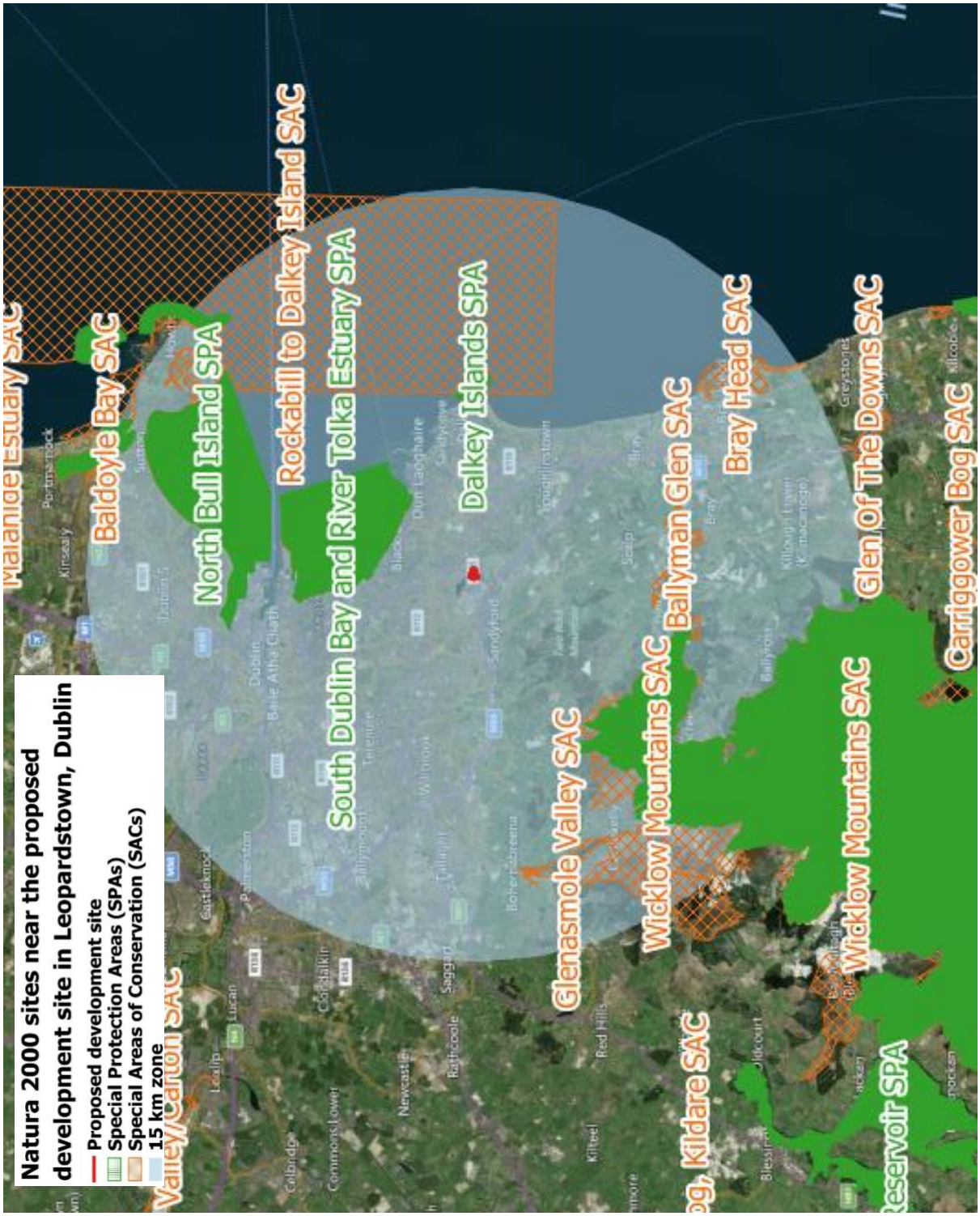

Figure 3.2. Natura 2000 sites in the vicinity of the Proposed Development site.

Figure 3.3. The Proposed Development site in the context of Carrickmines Stream and pNHAs.

3.2.2 Habitats

The following habitat types (following Fossitt 2000) were identified within the Proposed Development site (see Figure 3.4 below for habitat map):

- Flower beds and borders (BC4)
- Buildings and artificial surfaces (BL3)
- Spoil and bare ground (ED2)
- Recolonising bare ground (ED3)
- Amenity grassland (improved) (GA2)
- Dry meadows and grassy verges (GS2)
- Treelines (WL2)
- Ornamental/non-native shrub (WS3)
- Scrub (WS1)

No Annex I habitats, for which European sites listed in Table 3.1 have been designated, were recorded within the Proposed Development site.

3.2.3 Flora and fauna species

The National Biodiversity Data Centre (NBDC) database search did not return any records of protected and/or rare plant species, within c. 2km of the Proposed Development site.

Furthermore, the NBDC database search did not return any records of any non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

All bat species within the site are within Annex IV of the Habitats Directive and do not feature as Qualifying Interests for any Natura 2000 sites within the Zone of Influence of the site. As there will not be any significant amount of foraging or roosting potential on site for such species it is unlikely that Brent geese will occur on site. It is possible that more mobile species, may commute across the site, flying through, or over the site, while moving from one area of local resource to another. Such species are adept at navigating around our cities and would be expected to rapidly habituate to the presence of new structures in their environment.

No non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, were recorded during the habitat surveys within the Proposed Development site.

Observations in April 2021 provided an opportunity to identify the presence of Light bellied Brent geese (*Branta bernicla hrota*) foraging (either from visual observation or from the presence of droppings) or flying over the site. This species is a QI for three Natura 2000 sites screened within this document (South Dublin Bay and River Tolka Estuary SPA, 004024, distance c. 3.3 km; North Bull Island SPA, 004006, distance c. 8.4 km; and Baldoyle Bay SPA, 004016, distance c. 14.1 km). The presence of this species is very unlikely as the site offers no suitable foraging areas for species such as Brent geese or other shorebirds. The site is composed of numerous narrow gardens with scattered mature trees and numerous shrubs. There are no large areas of amenity grassland suitable for geese or other shorebirds. The largest green space within the site is surrounded by walls and scrub and is not easily accessible to geese. There are no important Brent goose foraging areas adjacent to or in the vicinity of the site. There are no important feeding areas within the site.

Herring gull (*Larus argentatus*) and Black headed gull (*Chroicocephalus ridibundus*) were observed flying over (individuals) and there were no nesting gulls within the site during this assessment. Black-headed Gull is a Qualifying Interest for Natura 2000 sites within the ZoI for South Dublin Bay and River Tolka Estuary SPA (004024) and North Bull Island SPA (004006). The remaining species of bird noted are not Qualifying Interests for Natura 2000 sites within the Zone of Influence of the proposed development (see Chapter 6 Biodiversity for details). :

Habitat map of Proposed SHD at Saint Joseph's House and adjoining properties

Proposed development site boundary
Treelines (WL2)
Scrub (WS1)
Ornamental / non-native shrub (WS3)
Amenity grassland (GA2)
Dry meadows and grassy verges (GS2)
Buildings and artificial surfaces (BL3)
Spoil and bare ground (ED2) / Recolonising bare ground (ED3)
Group of mature trees
Residential houses with gardens (BL3 / GA2 / BC4 / WS3)

Figure 3.4. The habitat map of the Proposed Development site.

3.2.4 Hydrology

The Proposed Development site is located within the Liffey and Dublin Bay catchment and Dodder sub-catchment. There are no waterbodies within or adjacent to the Proposed Development site. There are two streams near the Proposed Development site which are hydrologically connected with Natura 2000 sites (see Figure 3.5):

1) Carrickmines Stream 850 m south from the Proposed Development site connected with the Rockabill to Dalkey Island SAC (distance: c. 8.7 km downstream, via Irish Sea). This stream lies within Dargle subcatchment;

2) Brewery Stream 570 m north from the Proposed Development site connected with the South Dublin Bay SAC and the River Tolka Estuary SPA (distance: c. 3.2 km downstream).

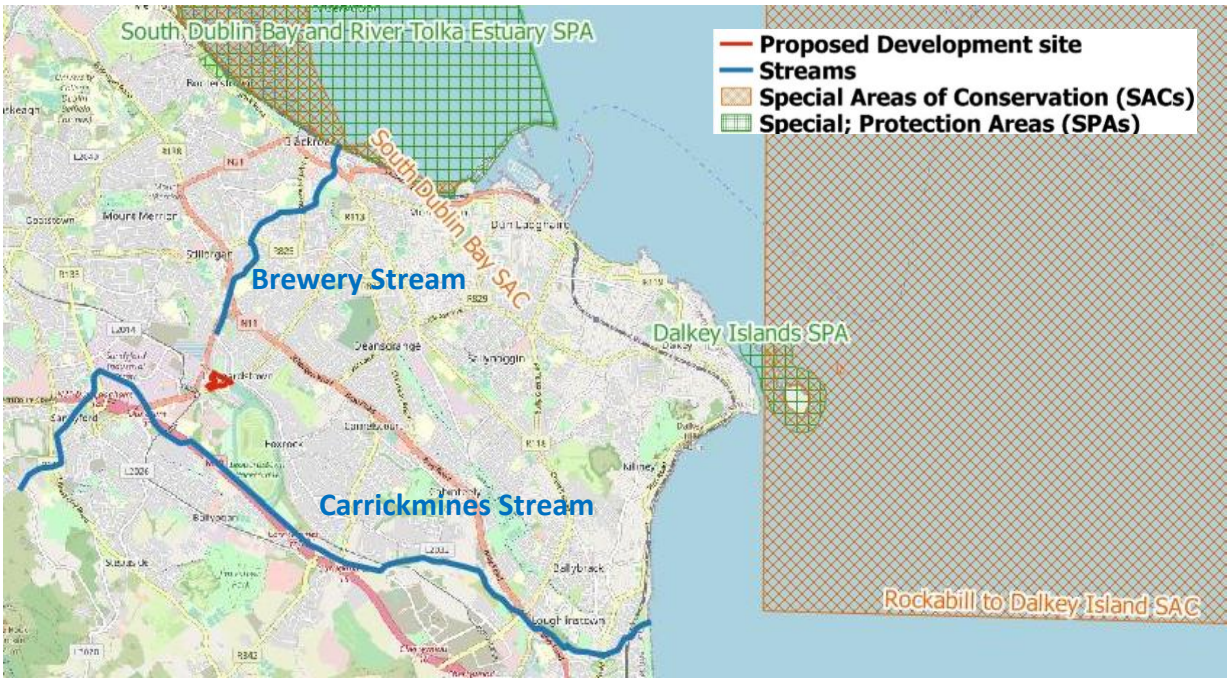

Figure 3.5. Proposed Development in the context of local watercourses and Natura 2000 sites.

According to EPA online maps, the water quality of the surface and coastal water is as follows:

- Carrickmines Stream is classified as 'Poor' quality status (Q3) at the EPA's nearest monitoring station at Glenamuck Rd Br.
- The Water Framework Directive (WFD) water quality status for the Carrickmines Stream is 'Moderate'.
- Southwestern Irish Sea – Killiney Bay coastal water quality is classified as 'Unpolluted'.
- The Water Framework Directive (WFD) water quality status for the Brewery Stream is 'Unassigned' (no data available)
- Dublin Bay coastal water quality is classified as 'Unpolluted'.

3.2.4 Hydrogeology

Geological Survey of Ireland (GSI) and EPA data indicate that the site is underlain by a "poor aquifer – bedrock which is generally unproductive except for local zones". The Groundwater Body (GWB) underlying the proposed site is the Kilcullen GWB which is a "poorly productive bedrock". Report by IE Consulting ('Hydrological Assessment of proposed soakway') states that localised zones include deep weathered zones or faults. The maps do not indicate the presence of any such features in the area, and the geophysical survey undertaken as part of this project did not identify any such features. It is reasonable therefore to suggest that the Granite beneath this site is generally impervious and probably receives little to no recharge.

Furthermore, any rainfall that does pass through the low permeability gravelly clay, will be vertically constrained by the low permeability of the granite. The water will therefore dissipate slowly through the impersistent granite Sand, and will follow the topographic gradient towards the Northeast, possibly recharging some local streams such as the Brewery Stream.

The site is located in an area of "High Vulnerability" with regards to the ease with which groundwater may be contaminated by human activities.

Kilcullen GWB WFD is currently classified as having "Good" status. The European sites designated for groundwater dependent habitats/species, and which occur within the same GWB as the proposed site are:

- Rockabill to Dalkey Island SAC [003000],
- Dalkey Island SPA (004172),
- South Dublin Bay SAC (000210),
- South Dublin Bay and River Tolka Estuary SPA (004024)
- Poulaphouca Reservoir SPA (004063).

3.2.5 Soils and geology

According to the afore mentioned report by IE Consulting, the Proposed Development site is underlain by bedrock which comprises a pale grey fine to coarse grained Granite. The top 1.0mof the granite is weathered to a sand. A consistent cover of gravelly CLAY (glacial Till) overlies the Granite and Granite Sand except where replaced by Made Ground. The Made Ground may be a combination of reworked/imported material.

3.2.6 Air Quality

The Air and Climate chapter of the EIAR accompanying this report states that, based on information from EPA, an estimate of the current background NO2 concentration for the region of the Proposed Development is 20 µg/m3; an estimate of the current background PM10 concentration in the region of the Proposed Development is 13µg/m3; and PM2.5 concentration in the region of the development is 9.1µg/m3.

3.3. Assessment of potential impacts affecting Natura 2000 sites

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.

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.

The impact assessment is based on the 'source-pathway-receptor' conceptual model process used to provide a systematic and auditable approach to understanding the potential for effects to arise, the spatial extents of the effect-receptor interactions, impact pathways, and potential impact significance. The conceptual 'source-pathway-receptor' model is effective in the identification of potential effects and the means by which these can manifest themselves on the receiving environment and its sensitive receptors. The term 'source' describes the origin of potential effects (e.g. construction activities) and the term 'pathway' describes the means (e.g. through air, water, or ground) by which the effect reaches the receiving sensitive 'receptor' (e.g. terrestrial habitats, archaeology and human receptors). If the source, pathway or receptor is absent, no linkage exists and thus there will be no potential for an impact to manifest.

3.3.1 Habitat loss and fragmentation

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.

The Proposed Development does not traverse any European Designated sites. Therefore, there is no potential for habitat fragmentation to occur.

One fauna species being a Qualifying Interest for Natura 2000 sites within the ZoI was identified during surveys within the Proposed Development site: Black-headed Gull (Chroicocephalus ridibundus) (QI for South Dublin Bay and River Tolka Estuary SPA (004024) and North Bull Island SPA (004006). However, the observed single bird was flying over the site and did not use the site. Black-headed gulls are typically associated with coastal areas, ploughed fields and urban areas outside of the breeding season. Considering the large areas of suitable habitat (urban areas) to the proximity of the site for black-headed gulls to forage and roost in, the proposed development will not result in displacement of populations of black-headed gull for which there are European sites designated within the vicinity of the Proposed Development.

Considering the above and the significant distance between the Proposed Development site and European sites, it can be concluded that the Proposed Development site does not support populations of any fauna species linked with the QI populations of any European site(s).

As per Arboricultural Report prepared by The Tree File Consulting Arborists, the "red line" area supports a total of 277no. individually described trees. At the same time, it is noted that the site supports numerous "groups", including thicket areas, shrubberies and hedges, each of which might consist of numerous individual plants. Therefore and in the interest of clarity, the figures below

concentrate on individual or multi-stemmed trees only. These figures show that the overall review area supports:

- No good quality category “A” trees,
- 110no. fair quality category “B” trees,
- 146no. poor quality category “C” trees,
- 21no. unsustainable category “U” trees,
- Total - 277

Normally, all category “U” trees (21 in total across survey area) identified in the survey would be removed. Many should be removed regardless of development works. The tree loss breakdown for the proposed development will be:

- 55 Category “B” items,
- 66 category “C” items,
- 21 category “U” trees,
- Total development related tree loss - 142 trees. This equates to 51% of the pre-development tree population.

In addition to the above, the development will result in the loss of numerous shrubs and hedges, particularly associated with the ornamentation of the domiciliary garden areas of the existing site.

The landscape proposals associated with this scheme call for the planting of 200 new trees. Therefore and notwithstanding the tree losses associated with the proposed development, the post development will see a net gain in tree numbers as well as an increased and improved degree of tree sustainability.

None of the trees present within the Proposed Development are likely to be used by QI of Natura 2000 sites within the ZoI.

There are a number of projects involving demolition of existing building and building new ones within 1.2 km of the Proposed Development project (Planning ref.: D19A/0972 & ABP 3007574/20, D21A/0294, ABP304068/19, D16A/0904 & ABP PL06D.248703, D18A/1112 & ABP 303816-19, D17A/0441 & ABP PL06D.249014, D16A/0158, ABP301428-18, ABP305940-19). Other projects within this distance involve construction of new buildings (which may result in removal of mature vegetation): Plan. ref. ABP305345-19, ABP310104-21, ABP303467-19, D21A/0247).

All these projects may add to any negative impact of the Proposed Development in terms of habitat loss for the local flora and fauna. However, this will not adversely affect habitats and species which are qualifying interests for the Designated Sites within the Proposed Development’s influence zone.

The Proposed Development will not result in habitat loss or habitat fragmentation within any European site. Therefore, there is no potential for any in combination effects to occur in that regard.

3.3.2 Habitat degradation as a result of hydrological impacts

Surface water

Civil Infrastructure Report for Berwick Pines Residential Development, Leopardstown, prepared by Barrett Mahony Consulting Engineers, states that urban run-off, when drained by pipe systems, results in run-off from virtually every rainfall event with high levels of pollution, particularly int he first phase

of run-off, with little rainfall percolating to the ground. To prevent this happening, interception storage and/or treatment storage is provided, thereby replicating the run-off characteristics of the pre-development greenfield site. Interception storage is provided for the site by a variety of measures so there is no need for extra treatment storage and even the infiltration provided in the soakaway will provide some tertiary treatment for this site. Finally, the chosen SuDS measures have been analysed for various rainfall scenarios to ensure that all the SuDS design criteria are met and these measures are effective in treating rainfall on the site to GDSDS and CIRIA criterion.

Surface water run-off and discharges from the Proposed Development will enter the downstream receiving environment via the surface water drainage network and will ultimately drain to Dublin Bay.

The Proposed Development will not have any measurable effects on water quality in Dublin Bay or the Irish Sea due to the following:

- The scale and location of the Proposed Development relative to the receiving surface water network
- The substantial distance between the Proposed Development site and downstream Natura 2000 sites and potential for pollution to be dissipated in the drainage network
- The relatively low volume of any surface water run-off or discharge events from the Proposed Development site relative to the receiving surface water and marine environments,
- The level of mixing, dilution and dispersion of any surface water run-off/discharges from the Proposed Development site in the receiving watercourses, Dublin Bay and the Irish Sea, and
- The distance from the site to the nearest watercourses.

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. It is an objective of the Greater Dublin Strategic Drainage Study, and the South Dublin County Council Development Plan 2016-2022, to incorporate Sustainable Urban Drainage Systems (SUDS) within new developments.

Therefore, there is no possibility of the Proposed Development having negative impact on any Natura 2000 site within Dublin Bay and Irish Sea as a result of surface water run-off or discharges.

Foul water

Proposed Foul Drainage System for this development has been designed in accordance with the relevant requirements of the Irish Water Code of Practice for Wastewater Infrastructure. The foul sewerage will ultimately discharge to the Ringsend WWTP. The Confirmation of feasibility and Statement of Design Acceptance regarding the foul drainage system was issued by Irish Water. These documents are attached as Appendices 1 and 2.

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. The pollution load of future foul water discharges to Dublin Bay is likely to decrease in the long-term because An Bord Pleanála granted planning permission for an upgrade to the Ringsend WWTP in April 2019, which will increase capacity at the plant. Furthermore, there is a commitment in the National Development Plan 2018-2027 to invest in and progress the Greater Dublin Drainage Project which will involve the provision of a new regional wastewater treatment plant. This will augment the waste water treatment capacity currently provided by Ringsend WWTP across the Greater Dublin Area. 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, as mentioned earlier in this section.

Considering the above, it is concluded that the Proposed Development will not have negative impact on the water quality within Natura 2000 sites and will not adversely affect habitat and species within these sites as a result of foul discharges.

Cumulative effects

There is potential for "in-combination" effects on water quality in Dublin Bay from any other projects carried out within the area of Dublin City which could influence conditions in Dublin Bay via rivers and other surface water features.

The Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031 (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.

The Proposed Development site lies within the administrative area of Dún Laoghaire - Rathdown County Council (DLRCC). Plans and developments within this area must comply with the following policy objectives of the Dún 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

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

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.

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.

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.

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 can be excluded.

3.3.3 Habitat degradation as a result of hydrogeological impacts

The Proposed Development lies within the Kilcullen Groundwater Body (GWB). The European sites designated for groundwater dependent habitats/species, and which occur within the same GWB as the proposed site are:

- Rockabill to Dalkey Island SAC [003000],
- Dalkey Island SPA (004172),
- South Dublin Bay SAC (000210),
- South Dublin Bay and River Tolka Estuary SPA (004024)
- Poulaphouca Reservoir SPA (004063).

These sites are designated for a number of water–dependant species and habitats.

As the Hydrological Assessment of Proposed Soakway states, the provision of an array of drains under the basement to equalise groundwater levels, and to provide continuity of flowpaths, is considered to represent an appropriate design measure, which will create a neutral residual drainage impact from the Proposed Development. As a result, no downstream impacts will result to infrastructure or environmental assets, including public amenities and European protected sites.

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 plans or projects, as a result of hydrogeological effects.

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

The Proposed Development site does not support any non-native invasive species which could be accidentally spread or introduced to habitats within European sites. No invasive plant species which are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011, and therefor subject to restrictions in Irish Law, were recorded within the Proposed Development site.

3.3.5 Disturbance and displacement impacts

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. For birds, disturbance effects would not be expected to extend beyond a distance of c.300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance. There are no European sites within the disturbance ZoI; the next nearest European site to the Proposed Development is c. 3.3 km away. The Proposed Development site was not found to support populations of any species associated with European sites. Therefore, the Proposed Development will not result in the disturbance/ displacement of the QI/SCI species of any European site.

As the Proposed Development will not result in the disturbance/displacement during the construction phase 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.

As stated in EIAR (Noise and vibrations chapter), it is predicted that during the construction phase, an impact of noise and vibration may occur, with characteristics of a short-term duration, a negative quality and moderate to significant. In regard to the operational phase, it is stated that for additional traffic on the public road the impacts are predicted to be permanent, neutral and imperceptible. For the inward noise impact on the development itself the impacts with mitigation in place are predicted to be permanent, neutral and not significant.

3.3.6 Habitat degradation as a result of contaminated land

As there is no contamination across the site and the site is suitable for this development, there is no potential for contaminated soil to be accidentally spread or introduced to habitats within European sites.

3.3.7 Habitat degradation as a result of air pollution impacts

The greatest potential impact on air quality during the construction phase of the Proposed Development is from construction dust emissions and the potential for nuisance dust. While construction dust tends to be deposited within 350m of a construction site, the majority of the deposition occurs within the first 50m. The nearest European site to the Proposed Development is c. 3.3 km away. Therefore, the Proposed Development will not result in the habitat degradation as a result of air pollution impacts on any of the European sites.

As per the findings of the Air Quality & Climate Chapter of the EIAR, during operation, there is no potential for impacts on air quality which could in turn lead to habitat degradation effects in nearby European sites.

Table 3.1. Natura 2000 sites located within 15km of the site and their qualifying interests.

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
1.	South Dublin Bay and River Tolka Estuary SPA	004024	3.3 km	**Birds** A144 Sanderling (Calidris alba) A157 Bar-tailed Godwit (Limosa lapponica) A149 Dunlin (Calidris alpina) A162 Redshank (Tringa totanus) A179 Black-headed	No source-pathway-receptors connection between the development and this SPA was identified.	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				Gull (Chroicocephalus ridibundus) A143 Knot (Calidris canutus) A192 Roseate Tern (Sterna dougallii) A046 Light-bellied Brent Goose (Branta bernicla hrota) A141 Grey Plover (Pluvialis squatarola) **Habitats:** A999 Wetlands		
2.	South Dublin Bay SAC	000210	3.4 km	**Habitats** 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	No source-pathway-receptors connection between the development and this SAC was identified.	No
3.	Dalkey Islands SPA	004172	6.7 km	**Birds** A194 Arctic Tern (Sterna paradisaea) A193 Common Tern (Sterna hirundo)	No source-pathway-receptors connection between the development and	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				A192 Roseate Tern (Sterna dougallii)	this SPA was identified.	
4.	Knocksink Wood SAC	000725	6.9 km	**Habitats** 7220 Petrifying springs with tufa formation (Cratoneurion)* 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*	No source-pathway-receptors connection between the development and this SAC was identified.	No
5.	Wicklow Mountains SAC	002122	6.9 km	**Habitats** 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)*	No source-pathway-receptors connection between the development and this SAC was identified.	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				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 **Species** 1355 Otter (Lutra lutra)		
6.	Rockabill to Dalkey Island SAC	003000	7 km	**Habitats** 1170 Reefs **Species** 1351 Harbour Porpoise (Phocoena phocoena)	No source-pathway-receptors connection between the development and this SAC was identified.	No
7.	Wicklow Mountains SPA	004040	7.2 km	**Birds** A098 Merlin (Falco columbarius) A103 Peregrine (Falco peregrinus)	No source-pathway-receptors connection between the development and this SPA was identified.	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
8.	Ballyman Glen SAC	000713	7.6 km	**Habitats** 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens	No source-pathway-receptors connection between the development and this SAC was identified.	No
9.	North Dublin Bay SAC	000206	8.4 km	**Habitats** 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) 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	No source-pathway-receptors connection between the development and this SAC was identified.	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				Species 1395 Petalwort (Petalophyllum ralfsii)		
10.	North Bull Island SPA	004006	8.4 km	**Birds** A160 Curlew (Numenius arquata) A149 Dunlin (Calidris alpina) A157 Bar-tailed Godwit (Limosa lapponica) A162 Redshank (Tringa totanus) A179 Black-headed Gull (Chroicocephalus ridibundus) A144 Sanderling (Calidris alba) A156 Black-tailed Godwit (Limosa limosa) A143 Knot (Calidris canutus) A169 Turnstone (Arenaria interpres) A054 Pintail (Anas acuta) A046 Light-bellied Brent Goose (Branta bernicla hrota) A048 Shelduck (Tadorna tadorna) A052 Teal (Anas crecca) A141 Grey	No source-pathway-receptors connection between the development and this SPA was identified.	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				Plover (Pluvialis squatarola) A056 Shoveler (Anas clypeata) A130 Oystercatcher (Haematopus ostralegus) A140 Golden Plover (Pluvialis apricaria) Habitats Wetlands		
11.	Bray Head SAC	000714	11.2 km	**Habitats** 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths	No source-pathway-receptors connection between the development and this SAC was identified.	No
12.	Glenasmole Valley SAC	001209	11.2 km	**Habitats** 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)*	No source-pathway-receptors connection between the development and this SAC was identified.	No
13.	Howth Head SAC	000202	12.3 km	**Habitats** 1230 Vegetated sea cliffs of the Atlantic	No source-pathway-receptors	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				and Baltic coasts 4030 European dry heaths	connection between the development and this SAC was identified.	
14.	Howth Head Coast SPA	004113	13.6 km	**Birds** A188 Kittiwake (Rissa tridactyla)	No source-pathway-receptors connection between the development and this SPA was identified.	No
15.	Baldoyle Bay SAC	000199	14.1 km	**Habitats** 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi)	No source-pathway-receptors connection between the development and this SAC was identified.	No
16.	Baldoyle Bay SPA	004016	14.1 km	**Birds** A137 Ringed Plover (Charadrius hiaticula) A048 Shelduck (Tadorna tadorna) A140 Golden Plover (Pluvialis apricaria) A157 Bar-tailed	No source-pathway-receptors connection between the development and this SPA was identified.	No

#	Site Name	Site Code	Distance	Qualifying interests (* denotes a priority habitat)	Connections (Source – Pathway – Receptor)	Considered further in screening Y/N
				Godwit (Limosa lapponica) A141 Grey Plover (Pluvialis squatarola) A046 Light-bellied Brent Goose (Branta bernicla hrota) **Habitats** Wetlands		

3.4. Summary of findings leading to potential for adverse effects

3.4.1. Assessment of potential direct impacts affecting the Natura 2000 sites

The Proposed Development site is not located within or directly adjacent to any designated Natura 2000 sites. It will not give rise to any direct loss, fragmentation or disturbance of Annex I habitats or Annex II species (or their supporting habitats), which may be listed as Qualifying Interests of Natura 2000 Sites.

3.4.2. Assessment of potential indirect impacts affecting the Natura 2000 sites

The Proposed Development site lies away from any surface water body. There is no significant risk of flooding affecting the Proposed Development site or flooding of the site drainage network impacting adjoining properties. Rainwater falling on the site will be drained in part into the groundwater system via soakaways on site and direct infiltration in green spaces. The remainder will drain to the surface water sewer on the Leopardstown Road after passing through SuDS features and an attenuation tank. The foul sewerage will ultimately discharge to the Ringsend WWTP which discharges to Irish see at Dublin Bay. Therefore, it will enter in the vicinity of a water dependant Natura 2000 site.

The proposed surface water drainage system is designed to comply with the 'Greater Dublin Strategic Drainage Study (GDSDS) Regional Drainage Policies Technical Document – Volume 2, New Developments, 2005' and the 'Greater Dublin Regional Code of Practice for Drainage Works, V6.0 2005'. CIRIA Design Manuals C753, C697 and C609 have also been used to design the surface water drainage system within the site. Sustainable Urban Drainage Systems (SuDS) will be incorporated fully into the development, in order to improve the quality of the surface water discharging from the site and reduce the runoff volume and rate. The surface water drainage design, for this development, was designed in accordance with the Local Authority requirements. The SuDS measures will be implemented as an additional measure to protect watercourses and enhance quality of life in the new development. These measures are not intended as mitigation measures and they are not required to screen out negative impacts of the Proposed Development on Natura 2000 sites.

Proposed Foul Drainage System for this development has been designed in accordance with the relevant requirements of the Irish Water Code of Practice for Wastewater Infrastructure.

The Confirmation of feasibility and Statement of Design Acceptance regarding the foul drainage system was issued by Irish Water. These documents are attached as Appendices.

Therefore, there is no potential for contamination of surface water features and no mitigation is required to protect Designated Sites from any potential indirect impacts.

3.4.3. Assessment of potential cumulative impacts affecting the Natura 2000 sites

Cumulative impacts or effects are changes in the environment that result from numerous human-induced, small-scale alterations. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects (Bowers Marriott, 1997). As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region were considered at this stage. This step aims to identify at this stage any possible significant in-combination or cumulative effects/impacts of the Proposed Development with other such plans and projects on the Natura 2000 sites.

As stated in section 3.3 above, from a review of the publicly available planning files for proposed projects or development near the Proposed Development there are no known plans or projects which could give rise to cumulative impacts affecting Natura 2000 sites.

3.4.4. Summary of findings leading to potential for adverse effects

According to NPWS (2010), the Appropriate Assessment Screening exercise can either identify that an Appropriate Assessment is not required or that significant effects are certain, likely or uncertain (i.e. the project must either proceed to Stage 2 (AA) or be rejected).

The Proposed Development site at Berwick Pines, Leopardstown is not located within or directly adjacent to any Natura 2000 site. No source – pathway – receptor connection was identified between the Proposed Development site and any Designated Site. The Appropriate Assessment screening process considered potential impacts which may arise during the installation and operational phases of the changes being considered. Through an assessment of the pathways for effects and an evaluation of the activities, taking account of the processes involved and the distance of separation between Natura 2000 designations in the wider study area, it has been evaluated that there are no likely significant adverse effects on the qualifying interests or the conservation objectives of any designated Natura 2000 site.

It is concluded that the Proposed Development, individually or in combination with other plans and projects, will not have a significant effect on a European site. **Consequently, the Proposed Development does not require an Appropriate Assessment; there is, therefore, no requirement to progress to Stage 2: Natura Impact Statement (NIS).**

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www.npws.ie/maps-and-data

Appendix 1. Irish Water Correspondence – Confirmation of Feasibility

Paul Stephenson

Barrett Mahony,
52-54, Sandwith St Lower, Dublin

Dublin D02WR26

Ireland

12 July 2021

Re: CDS19008244 pre-connection enquiry - Subject to contract | Contract denied

Connection for Housing Development of 463 unit(s) at St. Joseph House, Silver Pines, Dublin

Dear Sir/Madam,

Irish Water has reviewed your pre-connection enquiry in relation to a Water & Wastewater connection at St. Joseph House, Silver Pines, Dublin (the **Premises**). Based upon the details you have provided with your pre-connection enquiry and on our desk top analysis of the capacity currently available in the Irish Water network(s) as assessed by Irish Water, we wish to advise you that your proposed connection to the Irish Water network(s) can be facilitated at this moment in time.

SERVICE	**OUTCOME OF PRE-CONNECTION ENQUIRY** **THIS IS NOT A CONNECTION OFFER. YOU MUST APPLY FOR A CONNECTION(S) TO THE IRISH WATER NETWORK(S) IF YOU WISH TO PROCEED.**
Water Connection	New connection to the existing network is feasible without upgrade.

Wastewater Connection	Feasible subject to upgrades
SITE SPECIFIC COMMENTS	
Water Connection	N/A
Wastewater Connection	Feasible to connect subject to flows from the entire development site being limited to 5l/s and the delivery of an Irish Water project to augment the bifurcation of sewers at the Leopardstown Road and an existing Irish Water storage tank at Burton Hall Road. This upgrade project is scheduled to be completed by 2023 (this may be subject to change). Work on these assets will be in the public domain. Provision for a gravity bypass should be included in the pm ' pumped solution design, which will need to be decommissioned at a future date. The pm ' pumping station will be the responsibility of the developer to operate, maintain and decommission. The details of the
	pumping station, operational requirements and bypass will be subject to any future Connection Agreement for the development. The connection point is to the Silver Pines estate and the network west of the development site.
Strategic Housing Development	Irish Water notes that the scale of this development dictates that it is subject to the Strategic Housing Development planning process. In advance of submitting your full application to An Bord Pleanala for assessment, you must have reviewed this development with Irish Water and received a Statement of Design Acceptance in relation to the layout of water and wastewater services.
The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this development shall comply with the Irish Water Connections and Developer Services Standard Details and Codes of Practice that are available on the Irish Water website. Irish Water reserves the right to supplement these requirements with Codes of Practice and these will be issued with the connection agreement.	

The map included below outlines the current Irish Water infrastructure adjacent to your site:

Reproduced from the Ordnance Survey of Ireland by Permission of the Government. License No. 3-3-34

Whilst every care has been taken in its compilation Irish Water gives this information as to the position of its underground network as a general guide only on the strict understanding that it is based on the best available information provided by each Local Authority in Ireland to Irish Water. Irish Water can assume no responsibility for and give no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided and does not accept any liability whatsoever arising from any errors or omissions. This information should not be relied upon in the event of excavations or any other works being carried out in the vicinity of the Irish Water underground network. The onus is on the parties carrying out excavations or any other works to ensure the exact location of the Irish Water underground network is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

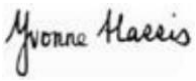
General Notes:

1) The initial assessment referred to above is carried out taking into account water demand and wastewater discharge volumes and infrastructure details on the date of the assessment. **The availability of capacity may change at any date after this assessment.**

2) This feedback does not constitute a contract in whole or in part to provide a connection to any Irish Water infrastructure. All feasibility assessments are subject to the constraints of the Irish Water Capital Investment Plan.
3) The feedback provided is subject to a Connection Agreement/contract being signed at a later date.
4) A Connection Agreement will be required to commencing the connection works associated with the enquiry this can be applied for at https://www.water.ie/connections/get-connected/
5) A Connection Agreement cannot be issued until all statutory approvals are successfully in place.
6) Irish Water Connection Policy/ Charges can be found at https://www.water.ie/connections/information/connection-charges/
7) Please note the Confirmation of Feasibility does not extend to your fire flow requirements.
8) Irish Water is not responsible for the management or disposal of storm water or ground waters. You are advised to contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges
9) To access Irish Water Maps email datarequests@water.ie
10) All works to the Irish Water infrastructure, including works in the Public Space, shall have to be carried out by Irish Water.

If you have any further questions, please contact Marko Komso from the design team on 022 54611 or email mkomso@water.ie For further information, visit **www.water.ie/connections.**

Yours sincerely,



Yvonne Harris

Head of Customer Operations

Appendix 1. Irish Water Correspondence – Statement of Design Acceptance

Paul Stephenson
Barrett Mahony,
52-54, Sandwith St Lower, Dublin
D02WR26
Dublin
Ireland

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

10 June 2021

Re: Design Submission for St.Joseph House, Silver Pines, Dublin (the "Development") (the "Design Submission") / Connection Reference No: CDS19008244

Dear Paul Stephenson,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Irish Water has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before you can connect to our network you must sign a connection agreement with Irish Water. This can be applied for by completing the connection application form at www.water.ie/connections. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU)(https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Irish Water's network(s) (the "**Self-Lay Works**"), as reflected in your Design Submission. Acceptance of the Design Submission by Irish Water does not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Irish Water representative:
Name: Alvaro Garcia
Email: agarcia@water.ie

Yours sincerely,

Yvonne Harris

Yvonne Harris
Head of Customer Operations

Appendix A

Document Title & Revision

BPR-BMD-00-00-DR-C-1000-Foul and Surface Drainage Ground Fl. Layout
BPR-BMD-00-00-DR-C-1020 – Watermains
BPR-BMD-00-00-DR-C-1100 Proposed Drainage Sections
BPR-BMD-00-00-DR-C-1101 Proposed Drainage Sections
BPR-BMD-00-B1-DR-C-1001

For further information, visit www.water.ie/connections

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Irish Water will not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.