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Natura Impact Statement

PRESENTED TO

Capami Ltd
Proposed
Development
August 2024

Large-scale

Residential

Environmental Consultancy Services

DOCUMENT CONTROL SHEET

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1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Capami Ltd. to prepare an Appropriate Assessment Screening Report in relation to a Proposed Large-scale Residential Development (entitled 'Oldcourt LRD') at Bohernabreena, Oldcourt, Ballycullen, Co. Dublin. The AA Screening Report concluded that a degree of uncertainty exists in whether the Proposed Development could give rise to potentially significant effects on one European site, namely the Wicklow Mountains SAC (002122).

Therefore, a Natura Impact Statement (NIS) has been prepared for the Proposed Development. The purpose of this NIS report is to provide information for the relevant competent authority to carry out a Stage 2 Appropriate Assessment in respect of the Proposed Development.

1.2 Quality Assurance and Competence

Enviroguide Consulting is a multi-disciplinary consultancy specialising in the areas of the Environment, Waste Management and Planning. All Enviroguide consultants carry scientific or engineering qualifications and have a wealth of experience working within the Environmental Consultancy sectors, having undergone extensive training and continued professional development.

Enviroguide Consulting as a company remains fully briefed in European and Irish environmental policy and legislation. Enviroguide staff members are highly qualified in their field. Professional memberships include the Chartered Institution of Wastes Management (CIWM), the Irish Environmental Law Association and Chartered Institute of Ecology and Environmental Management (CIEEM).

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. The following ecologists from Enviroguide contributed to the preparation of this report via desk studies, field surveys and authorship:

- SH – Ecologist
- WMC – Ecologist
- BMC – Ecologist (Ornithologist)
- BT – Ecologist
- CBH – Ecologist
- WS – Intern Ecologist
- SA – Ecologist (no longer with Enviroguide)

SH has a B.Sc. (Hons) in Zoology and a Ph.D. in Marine Ecology from University College Dublin, and a wealth of experience in desktop research, bioinformatics analyses, literature review and reporting, as well as practical field and laboratory experience including habitat mapping, invasive species surveys, terrestrial fauna surveys (incl. mammal presence and bat activity surveys), freshwater and marine fish surveys and environmental DNA analysis. SH has prepared several Stage I and Stage

II Appropriate Assessment Reports and Ecological Impact Assessments (EclA). Additionally, SH has authored and supported the preparations of a number of Biodiversity Chapters for Environmental Impact Assessment Reports.

WMC has a B.Sc. in Applied Freshwater and Marine Biology from Galway-Mayo Institute of Technology. WMC has four years of experience in ecological surveying and in this time, he has covered a wide range of ecological topics including ornithological surveying, bat surveying, badger surveying/exclusions, otter surveying, macroinvertebrate surveying and habitat surveying among others. WMC has also completed the field and report work of numerous planning surveys including Preliminary Ecological Appraisals (PEA), Appropriate Assessment (AA), Natura Impact Statement (NIS) and Ecological Clerk of Works (ECoW) surveys.

BMcC is an Ecologist and experienced Ornithologist with 12 years of bird survey experience. BMcC is a longstanding and active member of Bird Watch Ireland and has provided Ornithology survey work for ecological consultancies, e.g., vantage points surveys of gulls, terns, raptors, waders, and wildfowl; hinterland surveys of the above as well as riverine species; and breeding waders and country birds. BMcC is highly experienced with all survey methodologies and with surveying all species groups of Irish birds and migrants.

BT has a B.Sc. in Environmental Biology (Hons) and a PhD in Marine Ecology from University College Dublin, and a wealth of experience in desktop research, literature scoping-review, and report writing, as well as practical field experience (Habitat mapping surveys, intertidal surveys, vantage point surveys, winter bird surveys, fresh water macro-invertebrate identification etc.). BT has experience in compiling Biodiversity Chapters of Environmental Impact Assessment Reports (EIARs), AA screening and NIS reports, and in the overall assessment of potential effects to ecological receptors from a range of developments.

CBH is an experienced Ecologist with Enviroguide and has a BSc. (Hons) in Wildlife Biology from Munster Technological University (formerly ITT). CBH has a wealth of experience in desktop research, literature review and reporting, as well as practical field and laboratory experience including experience in surveying habitats, plants, bats, birds, mammals, and invasive species. CBH has prepared several PEA, EclA, and Stage I/Stage II AA Reports, as-well as ornithology reports for renewable energy projects (wind and solar technology). Additionally, CBH has completed, and supported the preparations of several Biodiversity Chapters for Environmental Impact Assessment Reports (EIAR). CBH is also a Qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

WS is a near-graduate UCD Environmental Science Masters student and is a postgraduate student intern at Enviroguide from June until September of this year. WS has training in ecological assessment, GIS, ecology, and environmental engineering. This training is coupled with experience working in the UCD Energy Institute and UCC Biological, Earth and Environmental Sciences school. WS excels in client interactions and hold a first-class honours undergraduate degree in Psychology from Trinity College Dublin, as well as undergraduate certificates in innovation and entrepreneurship. WS has excellent organisational, analytical and report writing skills,

honed during his time working in academia, non-governmental organisations, and the private sector.

1.3 Description of Proposed Development

1.3.1 Site Location

Capami Ltd. intends to apply for planning permission for a Proposed LRD in the townlands of Bohernabreena, Oldcourt and Killininny, Dublin 24.

The Development Site is located to the east of Bohernabreena Road, north and east of Bohernabreena cemetery, south and south-east of St. Anne's GAA club, south and south-west of the Dodderbrook residential estate, west of the Ballycullen Gate residential development (currently under construction) and west of Oldcourt Road (the R113) (Figure 1).

The Site measures 19.8 hectares and is primarily under agricultural use (there is a small commercial development at the western boundary). The lands north and east of the Site are developed (primarily residential). The western boundary adjoins Bohernabreena Cemetery. The lands south of the Site are under agricultural use.

1.3.2 Proposed Development Description

The Proposed Development consists of 523 no. dwellings, comprised of (i) 319 no. two and three storey, detached, semi-detached, and terraced houses (i.e. 53 no. two-bed, 180 no. three-bed, 5 no. two / three bed, and 34 no. four-bed units), (ii) 142 no. two and three bed apartment and duplex units in 10 no. three storey duplex blocks, 62 no. one and three bed apartment and duplex units in 31 no. three storey "E" type houses, and (iii) 44 no. apartments (8 no. one bed, 19 no. two bed, and 17 no. three bed units) in 7 no. two / three storey apartment blocks, along with a childcare facility of approximately 320 sq.m located on the ground floor of proposed apartment block C.

Private amenity space for the residential units is provided in the form of rear gardens for houses and ground floor terraces / upper floor balconies for apartment and duplex units. The proposed development provides for c.5.68 hectares of public open space and c.3,425 sq.m of communal open space associated with proposed residential units.

Vehicular access to the development will be via 4 no. access points, as follows: (i) from the west of the site via 2 no. accesses located off Bohernabreena Road, (ii) from the north of the site via 1 no. access at Dodderbrook Place, and (iii) from Oldcourt Road (the R113) to the east, via adjoining residential development at Ballycullen Gate. The proposed development includes for pedestrian and cyclist connections and accesses throughout the proposed development and to adjoining lands to the north at Dodderbrook Avenue and to the north-west into St. Anne's GAA club.

The Proposed Development includes for a total of 783 no. surface car parking spaces, provided in the form of on-street and on-curtilage parking, and a total of 642 no. bicycle parking spaces, provided in designated bicycle storage areas and in the form of short-term visitor spaces.

The proposed development includes the demolition of all existing structures on site, including 2 no. single storey dwellings and outbuildings/sheds (total demolition area:

c. 4,152.06m²), hard and soft landscaping works, boundary treatments, SuDs features, drainage infrastructure, services infrastructure, bin stores, bicycle stores, car parking (including EV parking facilities), public lighting etc. and all associated site development works.

The Proposed Development provides for (i) all associated site development works above and below ground, including surface water attenuation & an underground foul sewerage pumping station in the northern part of the site, (ii) public open spaces (c. 3Ha), (iii) communal open spaces (c. 6,392m²), (iv) hard and soft landscaping and boundary treatments, (v) surface car parking (783 no. car parking spaces, including EV parking), (vi) bicycle parking (642 no. bicycle parking spaces), (vii) bin & bicycle storage, (viii) public lighting, and (ix), plant (M&E), utility services & 5 no. ESB sub-stations, all on an overall application site area of 18.3ha.

1.3.3 Drainage and Water Supply

1.3.3.1 Surface Water

As per the Engineering Planning Report prepared by Pinnacle for the Proposed Development (Pinnacle, 2024), South Dublin County Council (SDCC) record drawings and topographical survey information have identified a Ø450mm surface water sewer on the west of the site. The existing Ø450mm sewer conveys surface water from the Bohernabreena cemetery northwards through the proposed development. There are several existing agricultural ditches across the site, conveying surface water runoff from the south northwards across the subject site.

It is proposed that the existing Ø450mm surface water sewer shall be diverted to connect to a new proposed surface water pipeline following the proposed development road networks. The final detailed design of the diversion within the proposed development road network shall be agreed upon with the SDCC drainage department. It should be noted that the proposed surface water measures are aimed at improving the general surface water management of the site, by introducing interceptors, SuDS measures and by restricting the ultimate discharge.

By way of complying with sustainability elements i.e. SuDS, the surface water run-off from the entire development, has been attenuated within the methods as described above, catering for a 1:100yr storm event + 20% climate change. These systems cater for all the main roads drainage.

The discharge of stormwater from the developed site shall be limited by way of a flow control device to the equivalent greenfield runoff rate for each return period. The attenuation systems, permeable paving, swales, and restricted outflow proposed are all in keeping with best practice.

Permeable paving will be utilised for the surface-level carparking area to provide treatment and storage to rainwater falling on these areas. Swales will be used for access road surface water treatment, where possible, to treat water at the source before conveying it to the downstream attenuation facilities. The following SuDS measures have been incorporated into the development:

- Blue/Green roofs (on roof attenuation)

- Permeable paving
- Swales
- Bio-retention Tree pits
- Bio-retention Rain gardens
- Detention basins
- Petrol/Hydrocarbon separators
- Flow control device

For a detailed explanation of all SuDS measures, refer to the engineering report (Pinnacle 2024) prepared for the Site.

1.3.3.2 **Foul Drainage**

As per the Engineering Planning Report prepared by Pinnacle for the Proposed Development (Pinnacle, 2024), according to Uisce Éireann (Irish Water) GIS records and the site-specific topographical survey, there is an existing Ø225mm foul sewer on the west of the site, draining northwards, providing service to the existing private dwellings. A portion of this existing foul sewer shall remain outside of the site boundary and tie into the new proposed foul sewer network. Where the existing line crosses the subject site, it shall be integrated into the proposed foul network prior to being discharged into the existing foul sewer to the northeast. The discharge shall ultimately outfall at the same location in Allenton Drive. Additionally, there are foul sewer connections located within both northeastern Dodderbrook developments, although the westernmost of the two developments is not yet available on Uisce Éireann (Irish Water) GIS.

The foul drainage from this development will be discharged to four outfall connections via four Ø225mm diameter pipes into existing sewers to the north, north, north-east & north-west of the development.

The foul water from the subject site shall ultimately connect to the existing surrounding public foul water sewer network from where it shall discharge to the Ringsend Wastewater Treatment Plant (WwTP).

It should be further noted that a Pre-Connection Enquiry has been submitted to Uisce Éireann, for both water & wastewater, in respect of this development on December 8, 2023. The foul water design shall be compliant with any requirements from Uisce Éireann as part of the PCE process.

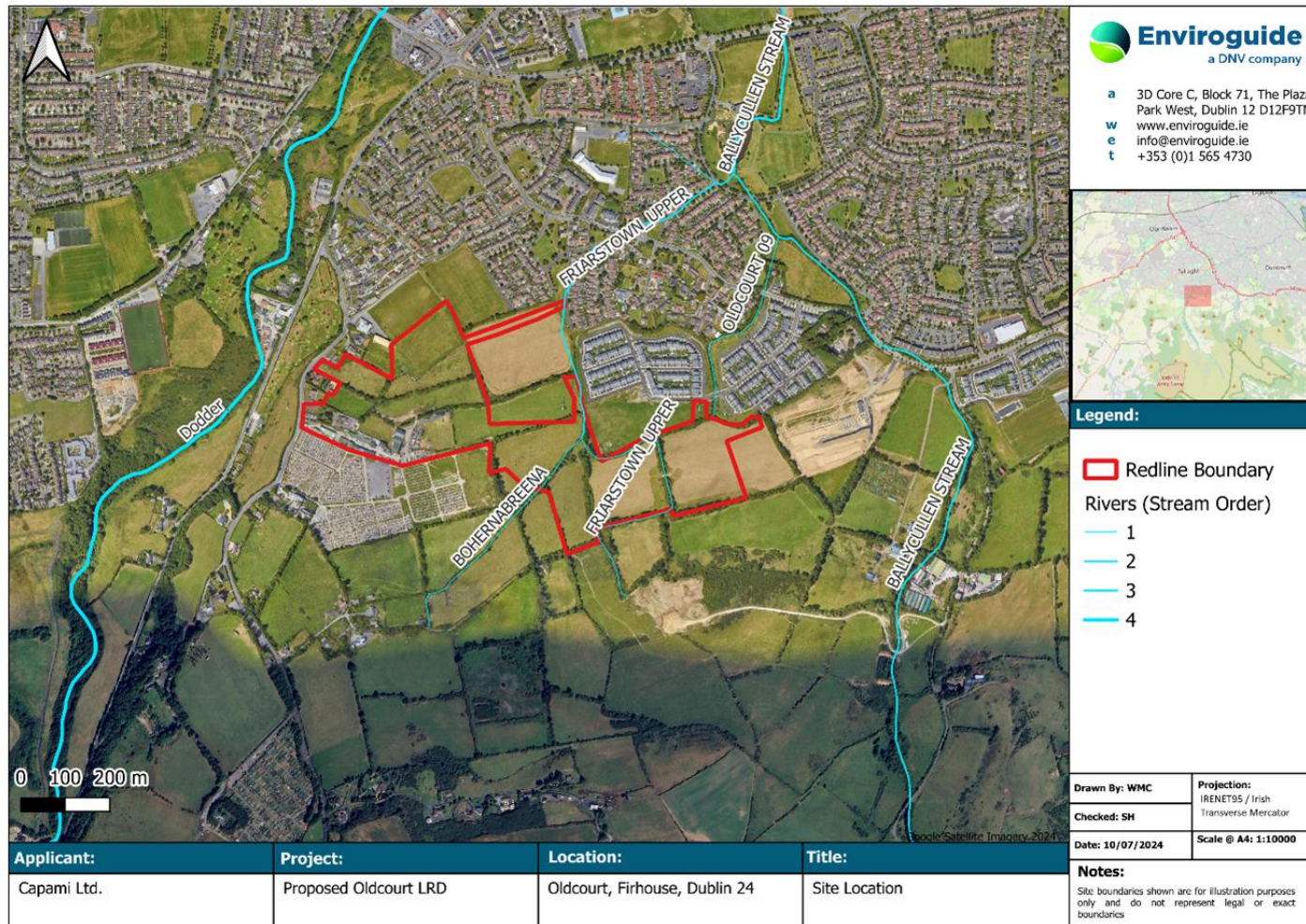


FIGURE 1. SITE LOCATION.



FIGURE 2. PROPOSED SITE LAYOUT (PINNACLE, 2024).

2 LEGISLATIVE AND POLICY CONTEXT

2.1 Legislative Background

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protected Areas (SPAs). The Habitats Directive has been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011). It is the responsibility of each member state to designate SPAs and SACs, both of which will form part of Natura 2000, a network of protected sites throughout the European Community.

SACs and SPAs are collectively known as “Natura 2000” or “European” sites. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the sites; from these the conservation objectives of the site are derived.

An ‘Appropriate Assessment’ (AA) is an assessment required prior to the grant of planning permission to determine whether a plan or project, based on best scientific knowledge, will have an adverse effect on the integrity of a European site, either alone or in combination with other plans and projects. It is required for any plan or project not directly connected with or necessary to the management of a site but likely to have a significant effect on it.

An AA is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a Natura 2000 site. Paragraph 3 states that:

“6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site, in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

2.1.1 Legislative Context

The obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended (“the 2000 Act”), and in particular Section 177T and Section 177V thereof in relation to Natura Impact Statements and Appropriate Assessment. The relevant provisions of Section 177T and 177V are set out below:

“177T.— (1) *In this Part— (a) A Natura impact report means a statement for the purposes of Article 6 of the Habitats Directive, of the implications of a Land use plan, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites.*

(b) A Natura impact statement means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites.

(2) Without prejudice to the generality of subsection (1), a Natura impact report or a Natura impact statement, as the case may be, shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites.”

(3) ...

(4) The applicant for consent for proposed development may, or if directed in accordance with subsection (5) by a competent authority, shall furnish a Natura impact statement to the competent authority in relation to the proposed development.

(5) At any time following an application for consent for proposed development a competent authority may give a notice in writing to the applicant concerned, directing him or her to furnish a Natura impact statement.

(6) ...

(7) (a) Without prejudice to subsection (1) a Natura impact report or a Natura impact statement shall include all information prescribed by regulations under section 177AD .

(b) Where appropriate, a Natura impact report or a Natura impact statement shall include such other information or data as the competent authority considers necessary to enable it to ascertain if the draft Land use plan or proposed development will not affect the integrity of the site.”

“177V.— (1) *An appropriate assessment carried out under this Part shall include a determination by the competent authority under Article 6.3 of the Habitats Directive as to whether or not a draft Land use plan or proposed development would adversely affect the integrity of a European site and an appropriate assessment shall be carried out by the competent authority, in each case where it has made a determination under section 177U(4) that an appropriate assessment is required, before—*

(a) the draft Land use plan is made including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

(b) consent is given for the proposed development.

(2) In carrying out an appropriate assessment under subsection (1) the competent authority shall take into account each of the following matters:

(a) the Natura impact report or Natura impact statement, as appropriate;

(b) any supplemental information furnished in relation to any such report or statement;

(c) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to a Natura impact statement;

(d) any additional information furnished to the competent authority at its request in relation to a Natura impact report;

(e) any information or advice obtained by the competent authority;

(f) if appropriate, any written submissions or observations made to the competent authority in relation to the application for consent for proposed development;

(g) any other relevant information.

(3) Notwithstanding any other provision of this Act, or, as appropriate, the Act of 2001, or the Roads Acts 1993 to 2007 and save as otherwise provided for in sections 177X, 177Y, 177AB and 177AC, a competent authority shall make a Land use plan or give consent for proposed development only after having determined that the Land use plan or proposed development shall not adversely affect the integrity of a European site.

(4) Subject to the other provisions of this Act, consent for proposed development may be given in relation to a proposed development where a competent authority has made modifications or attached conditions to the consent where the authority is satisfied to do so having determined that the proposed development would not adversely affect the integrity of the European site if it is carried out in accordance with the consent and the modifications or conditions attaching thereto.”

2.2 Policy Context

2.2.1 South Dublin County Development Plan 2022-2028

While the County Development Plan in its entirety is relevant to this Development and can be referred to separately. Policies, principles and objectives of the South Dublin County Development Plan (SDCDP) 2022 – 2028 that are of particular relevance to this Report are outlined below:

- **Policy NCBH3:** Conserve and protect Natura 2000 Sites and achieve and maintain favourable conservation status for habitats and species that are considered to be at risk through the protection of the Natura 2000 network from any plans or projects that are likely to have a significant effect on their coherence or integrity.
- **NCBH3 Objective 1:** To prevent development and activities that would adversely affect the integrity of any Natura 2000 site located within or adjacent to the County and promote the favourable conservation status of the habitats and species integral to these sites.
- **NCBH3 Objective 2:** To ensure that plans, including land use plans, will only be adopted, if they either individually or in combination with existing and/or proposed plans or projects, will not have a significant adverse effect on a European Site, or where such a plan is likely or might have such a significant effect (either alone or in combination), South Dublin County Council will, as required by law, carry out an appropriate assessment as per requirements of

Article 6(3) of the Habitats Directive 92/43/EEC of the 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as transposed into Irish legislation. Only after having ascertained that the plan will not adversely affect the integrity of any European site, will South Dublin County Council adopt the plan, incorporating any necessary mitigation measures. A plan which could adversely affect the integrity of a European site may only be adopted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation.

- **NCBH3 Objective 3:** To ensure that planning permission will only be granted for a development proposal that, either individually or in combination with existing and/or proposed plans or projects, will not have a significant adverse effect on a European Site, or where such a development proposal is likely or might have such a significant adverse effect (either alone or in combination), the planning authority will, as required by law, carry out an appropriate assessment as per requirements of Article 6(3) of the Habitats Directive 92/43/EEC of the 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as transposed into Irish legislation. Only after having ascertained that the development proposal will not adversely affect the integrity of any European site, will the planning authority agree to the development and impose appropriate mitigation measures in the form of planning conditions. A development proposal which could adversely affect the integrity of a European site may only be permitted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation.

2.2.2 South Dublin County Biodiversity Action Plan 2020 – 2026

South Dublin County Biodiversity Action Plan 2020 – 2026 is set out to protect and improve biodiversity through specific actions:

- Collate ecological data and survey and map the County, to provide an evidence base for informed biodiversity decision-making and to form the basis for a Green Infrastructure network, key projects to include:
 - i. Map the distribution of the habitats and species in the County.
 - ii. Map and manage the spread of non-native invasive species.
 - iii. Survey and monitor biodiversity at identified pollinator sites.
 - iv. Survey and map wetlands in the County.
 - v. Map the tree canopy cover in the County and quantify its carbon capture.
 - vi. Map the County's hedgerow network and identify key Green Infrastructure links.
- Develop a Biodiversity Communications Strategy, to celebrate and promote the enjoyment and protection of nature in South Dublin County, promoting engagement with national initiatives and events such as Biodiversity Week, Tree Week, Heritage Week, Pure Mile etc.
- Support rural and urban communities to undertake local biodiversity projects, training, and citizen science, encouraging appropriate initiatives that protect biodiversity while benefiting local economies.
- Quantify and promote the economic benefits (the natural capital) provided by the County's ecological landscapes (ecosystem services).

- Devise and implement good governance strategies to ensure the smooth integration of national and EU biodiversity legislation and policy requirements into all Council plans, projects, and services.
- Develop and implement best practice biodiversity protection guidelines and maintenance plans for the County's habitats and species, for use on Council lands and as guidance to assist local communities, developers, businesses, farming community, schools, etc.
- In the preparation process for the SDCC Development Plan, innovative approaches to promote strategic biodiversity policies and objectives will be developed.
- Coordinate with the Council's Climate Change Action Plan 2019-2024 to identify impacts on biodiversity arising from climate change, targeting and implementing necessary measures to assist biodiversity adapt to changing conditions.

2.2.3 Ballycullen – Oldcourt Local Area Plan (LAP) 2014

The overall objective of the LAP is to provide a development framework with residential densities appropriate to the unique location of the lands on the suburban edge of the Dublin Mountain foothills (Figure 3). The Plan provides for the construction of approximately 1,600 additional dwellings (about 4,600 persons) at a range of densities appropriate to the area.

The strategy complies with the requirements of the Core Strategy of the County Development Plan 2010 – 2016 and that of the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009).

The LAP lands include areas that are potentially sensitive in terms of biodiversity and conservation. The Planning Authority is of the opinion that this LAP would be likely to have significant effects on the environment. An Environmental Report and AA Screening have therefore been undertaken as part of the production of the LAP and the assessment and mitigation measures have been assimilated.

The LAP was subject to a Strategic Environmental Assessment (SEA) and an AA and includes lands on which the current Proposed Development is located.

Fig. 1.4 Aerial Photograph of Plan Lands, 2009



FIGURE 3. EXTENT OF LAP LANDS (SOURCE BALLYCULLEN-OLDCOURT LAP 2009).

The LAP identifies a number of objective themes for the protection of biodiversity under the Green Infrastructure Strategy, including:

- SUDS measures and efficient use of surface water (e.g., collection and reuse of grey water)
- Flood Risk Management
- Groundwater Vulnerability and Protection
- Protection and Incorporation of Natural Heritage
- Biodiversity Networks – Hedgerows and Streams
- Topography and Contours
- Protected Species
- Tracks and Trails

The above themes provide for a comprehensive approach to the protection and enhancement of local biodiversity and sensitive ecological features via the implementation of the LAP.

2.3 Stages of Appropriate Assessment

The AA process is a four-stage process. Each stage requires different considerations, assessments and tests to ultimately arrive at the relevant conclusion for each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

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

- **Stage 1: Screening.** The Screening for AA considers whether a plan or project is directly connected to or necessary for the management of a European site, or whether a plan or project, alone or in combination with other plans and

projects, is likely to have significant effects on a European site in view of its conservation objectives.

- **Stage 2: Natura Impact Statement (NIS).** Where Stage 1 determines that significant effects are likely, uncertain or unknown, the preparation of a NIS is required. The NIS must include a scientific examination of evidence and data to classify potential impacts on any European site(s) in view of their conservation objectives in the absence of mitigation. The NIS will identify appropriate mitigation to remove the potential for likely significant adverse effects on any European site(s). If the competent authority determines that the plan or project would have an adverse effect on the integrity of any European site(s) despite mitigation, it can only grant consent after proceeding through stages 3 and 4.
- **Stage 3: Assessment of alternative solutions.** If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain.** The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European site, where no less damaging solution exists.

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. First the project should aim to avoid any negative effects on European sites by identifying possible effects early in the planning stage and designing the project to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, a refusal for planning permission may be recommended. In this case, the project will generally only be considered where no alternative solutions are identified and the project is required for IROPI, or, in the case of priority habitats, considerations of health or safety, or beneficial consequences of primary importance for the environment or to other IROPI. Then compensation measures are required for any remaining adverse effects.

2.4 Stage 1: Appropriate Assessment Screening Conclusion

An AA Screening Report was prepared for the Proposed Development by Enviroguide Consulting in August 2024.

The conclusion of the AA Screening Report is as follows:

“The Proposed Development at Bohernabreena, Oldcourt, Ballycullen, Co. Dublin has been assessed, taking into account:

- *The nature, size and location of the proposed works and possible impacts arising from the construction works.*
- *The QIs and conservation objectives of the European sites*

- *The potential for in-combination effects arising from other plans and projects.*

In carrying out this AA screening, any targeted ecological mitigation measures and/or measures intended or included for the purposes of avoiding adverse effects arising as a result of the Proposed Development on any European site have not been taken into account. As a precaution, mitigation measures considered to be best practice during the Construction Phase but which require careful site-specific considerations to adequately prevent impacts on any European sites have similarly not been taken into account during the screening process.

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

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

*However, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that the possibility **cannot be excluded** that the Proposed Development will have a significant effect on any of the European sites listed below:*

- **Glenasmole Valley SAC**
- **Wicklow Mountains SAC**

Glenasmole Valley SAC is located along the Ballinascorney Road, and as such the potential for significant impacts via inadvertent spread of invasive species by construction related traffic (commercial and private vehicles) could not be ruled out. In addition, it is considered that the likelihood for indirect impacts via potential water quality deterioration within the Dodder River on any otters associated with the Wicklow Mountains SAC that may inhabit the Dodder River in proximity to the Site, cannot be excluded in the absence of site-specific detail on best practice surface water protection measures.

As such, this NIS will assess the potential effects of the Proposed Development on **the Wicklow Mountains SAC and Glenasmole Valley SAC** and proposed suitable appropriate measures to remove the potential for significant impacts on these European sites as a result of the Proposed Development.

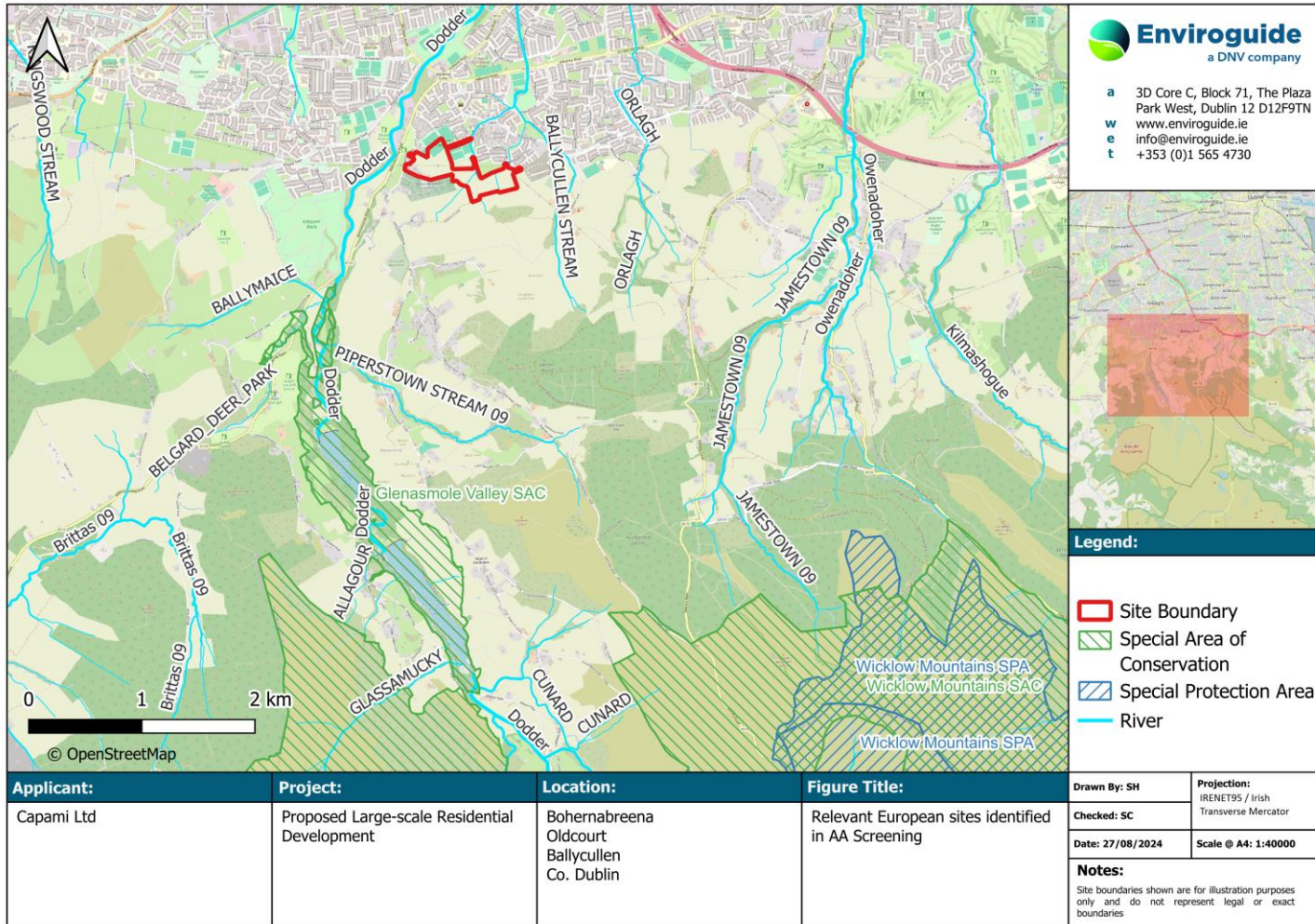


FIGURE 4. RELEVANT EUROPEAN SITES AS IDENTIFIED IN AA SCREENING (ENVIROGUIDE 2024A)

3 NIS METHODOLOGY

3.1 Guidance

This NIS has been undertaken in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPW 1/10 & PSSP 2/10;
- *Communication from the Commission on the precautionary principle* (European Commission, 2000);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019);
- *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);
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021;* and
- *Amendments to section 42 of the Planning and Development Act 2000, as amended and associated Planning and Development Regulations 2001. Department of the Environment, Heritage and Local Government. (2021). Circular Letter: EUIPR 01/2021.*

3.2 NIS Steps

This NIS has been prepared following the steps described below:

- Description of the baseline existing environment at the Site of the Proposed Development;
- Review and description of available data for the relevant European site(s) potentially affected as identified in the Screening Report (Enviroguide 2024);
- Identification and description of potential effects on the relevant European site(s) and their designated QIs/SCIs;
- Assessment of the likely significance of the effects and/or impacts identified on the relevant QIs/SCIs in view of their Site Specific Conservation Objectives (SSCOs) where available;
- Description and characterisation of other projects or plans that in combination with the Proposed Development have the potential for having significant effects on the relevant QIs/SCIs;

- Identification of appropriate mitigation measures to remove the likelihood of significant effects on any European site(s) and their QIs/SCI; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects once mitigation measures are adhered to.

3.3 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources relevant for the completion of the NIS. The desk- top study, completed in August 2024, relied on the following sources:

- Information on the network of European sites, relevant boundaries, QIs and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at www.npws.ie and the European Environment Agency (EEA) at <https://natura2000.eea.europa.eu/>;
- Information on the status of EU protected habitats and species in Ireland, obtained from the NPWS Article 17 reports;
- Text summaries of the relevant European sites taken from the respective Site Synopses for each site, available at www.npws.ie;
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at www.qis.epa.ie;
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at www.gsi.ie;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland; and
- Information on the extent, nature and location of the Proposed Development, provided by the applicant and their design team.

A comprehensive list of all the specific documents and information sources consulted in the completion of this report is provided in Section 6 - References.

3.4 Field Surveys

A range of field surveys have been carried out at the Site to date. These are summarised in Table 1. For full details on the methods and results of the fields surveys listed, please refer to the Biodiversity Chapter of the EIAR accompanying this application under separate cover. All surveys were carried out at the appropriate time of year by suitably qualified ecologists. No limitations to field surveys were encountered which would prevent robust conclusions being drawn as to the potential impacts of the Proposed Development. Surveys and results relevant to this Screening Report have been highlighted in green in the below, and summarised in section 4.1.2, however all surveys are shown in the table for completeness.

TABLE 1. FIELD SURVEYS UNDERTAKEN AT THE PROPOSED DEVELOPMENT SITE.

Survey	Surveyor	Dates
Multidisciplinary walkover surveys (incl. habitat mapping, flora and fauna)	Enviroguide Consulting (SH, SA, WMC)	20.09.2022 07.10.2022 04.06.2024

Survey	Surveyor	Dates
Breeding Bird Surveys	Enviroguide Consulting (BMcC)	10.05.2023 19.06.2023 05.07.2023
PBRA	Enviroguide consulting (CBH, WMC)	04.07.2023 13.07.2023 04.06.2024
Bat Dusk Transect Surveys	Enviroguide Consulting (various)	01.09.2022 (Eastern half) 08.09.2022 (Western half) 16.05.2023 (full site) 21.06.2023 (full site) 09.08.2023 (full site)

3.5 Impact Prediction

Potential impacts on the relevant European site(s) identified during the AA Screening are based on information regarding their QIs and/or SCI species, and the attributes and targets relating to their SSCOs where available. These have been informed by the desk study and any field surveys carried out prior to the preparation of this report.

Impact prediction is based on the Source-Pathway-Receptor (S-P-R) model. The following describes the steps of the S-P-R approach taken in this NIS:

- Potential sources of effects were identified based on the Proposed Development description and details, including changes to potentially suitable ex-situ habitats at the Site (i.e., habitats utilised by Species of Conservation Importance (SCI) bird species outside of their designated SPAs).
- Up-to-date GIS spatial datasets for water catchments as well as any information from relevant site investigations and/or field surveys were used to identify the QIs/ SCIs within the relevant European site(s) that have a notable S-P-R connection to the Proposed Development:
 - The catchment data were used to establish or discount potential hydrological connectivity between the Proposed Development and any QIs/SCIs.
 - Groundwater and bedrock information used to establish or discount potential hydrogeological connectivity between the Proposed Development and any QIs/SCIs.
 - Air and land connectivity assessed based on Proposed Development details and proximity to QIs/SCIs.
 - Consideration of potential indirect pathways, e.g., impacts to flight paths, ex-situ habitats, etc.
- Identification of potential impacts for those QIs/SCIs linked to the Proposed Development via notable S-P-R connections.

Where the preceding steps identified any potential for adverse impacts on any QIs/SCIs for the relevant European site(s), appropriate mitigation measures to eliminate the potential for significant adverse effects are identified in this report.

3.6 Limitations

No limitations were encountered which would prevent robust conclusions being drawn as to the potential impacts of the Proposed Development on the relevant European sites.

4 NATURA IMPACT STATEMENT

4.1 Existing Environment

4.1.1 Desk Study Results

4.1.1.1 Hydrology, Geology and Hydrogeology

The Site is located in the Liffey and Dublin Bay (Catchment I.D 09) and in the Dodder_SC_010-Sub-catchment (Sub-catchment I.D.10_5) (EPA, 2024).

Two small streams cross the Site approximately in the middle in a south to north direction. The Bohernabreena flows through the Site following parts of the hedgerow boundaries of the fields in a southwest to northeast direction. A second stream, Friarstown Upper, flows in a general south to north direction through the Site, also following the field boundaries, before converging with the Bohernabreena stream. The converged stream, Friarstown Upper, then continues in a northerly direction until it meets the Ballycullen Stream, which ultimately flows into the River Dodder main channel.

Bohernabreena, Friarstown Upper, and Ballycullen Stream, as well as the Dodder from where they converge until Rathfarnham (approx. 5km downstream), are all assessed as one river waterbody under the WFD, the DODDER_040. The DODDER_040 waterbody has been assigned *Moderate* water quality status (WFD 2016-2021) and is classified as *At Risk* of failing to achieve their Water Framework Directive status objectives by 2027 (EPA, 2024).

The EPA water quality monitoring data for the stations on the Ballycullen Stream and the Dodder River within 5km (hydrological) of the Site are summarised in Table 2. It should be noted that the reported Q-values downstream of the Site are all over 20 years old.

TABLE 2. EPA MONITORING STATIONS AND ASSIGNED Q VALUES.

EPA Monitoring Station name	Station Code	Location from Site	Distance from Site (hydrological)	Assigned Q value (Year of record)
DODDER - Footbridge Firhouse (Balroth Weir)	RS09D010400	North, downstream	Approx. 3.1km	3-4, Moderate (1984)
New Br, Firhouse	RS09D010420	North, downstream	Approx 3.1km	4, Good (1998)
DODDER - New Br u/s Templeogue Br	RS09D010430	North, downstream	Approx. 4.1km	3, Poor (2002)
Old Bawn Br	RS09D010300	North, upstream	Approx. 2.7km	4, Good (2022)

The Site of the Proposed Development is situated on the Kilcullen groundwater body IE_EA_G_003, which is classified as having “Good” status (WFD Status 2013-2018). The aquifer type in the area is a “*Poor Aquifer - Bedrock which is Generally Unproductive except*”

for *Local Zones*". The bedrock units underlying the Site are classified as "*Aghfarrell Formation*" (GSI, 2024a) while the quaternary sediments classified as "*Till derived from limestones*" (GSI, 2024a).

The level of vulnerability to groundwater contamination from human activities at the Site varies, with a small area at the northwest of the Site classed as *Low*, *Moderate* and *High* vulnerability dominating the majority of the Site, and a narrow section of *Extreme* vulnerability at the southern boundary of the Site (GSI, 2024a) (Figure 5). The subsoil beneath the Site is *Limestone till (Carboniferous)* (EPA, 2024a). The SIS National Soils database classified the soil beneath the Site as "*Urban*" (GSI, 2024a).

The Waterbody Status for water bodies relevant to the Site as recorded by the EPA (2024) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003), Part IV of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 and Part IV of the European Communities Environmental Objectives (Groundwater) Regulations 2010, are provided in Table 3.

TABLE 3. WFD RISK AND WATER BODY STATUS

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (km)	WFD water body status (2016-2021)	WFD 3 rd cycle Risk Status	Hydraulic Connection to the Site
Surface Water Bodies						
DODDER_040	IE_EA_09D0 10620	Within the Site	Within the Site	Moderate	At risk	Within the Site
Groundwater Bodies						
Kilcullen Groundwater Body	IE_EA_G_00 3	N/A	N/A	Good	At risk	Underlying groundwater-body

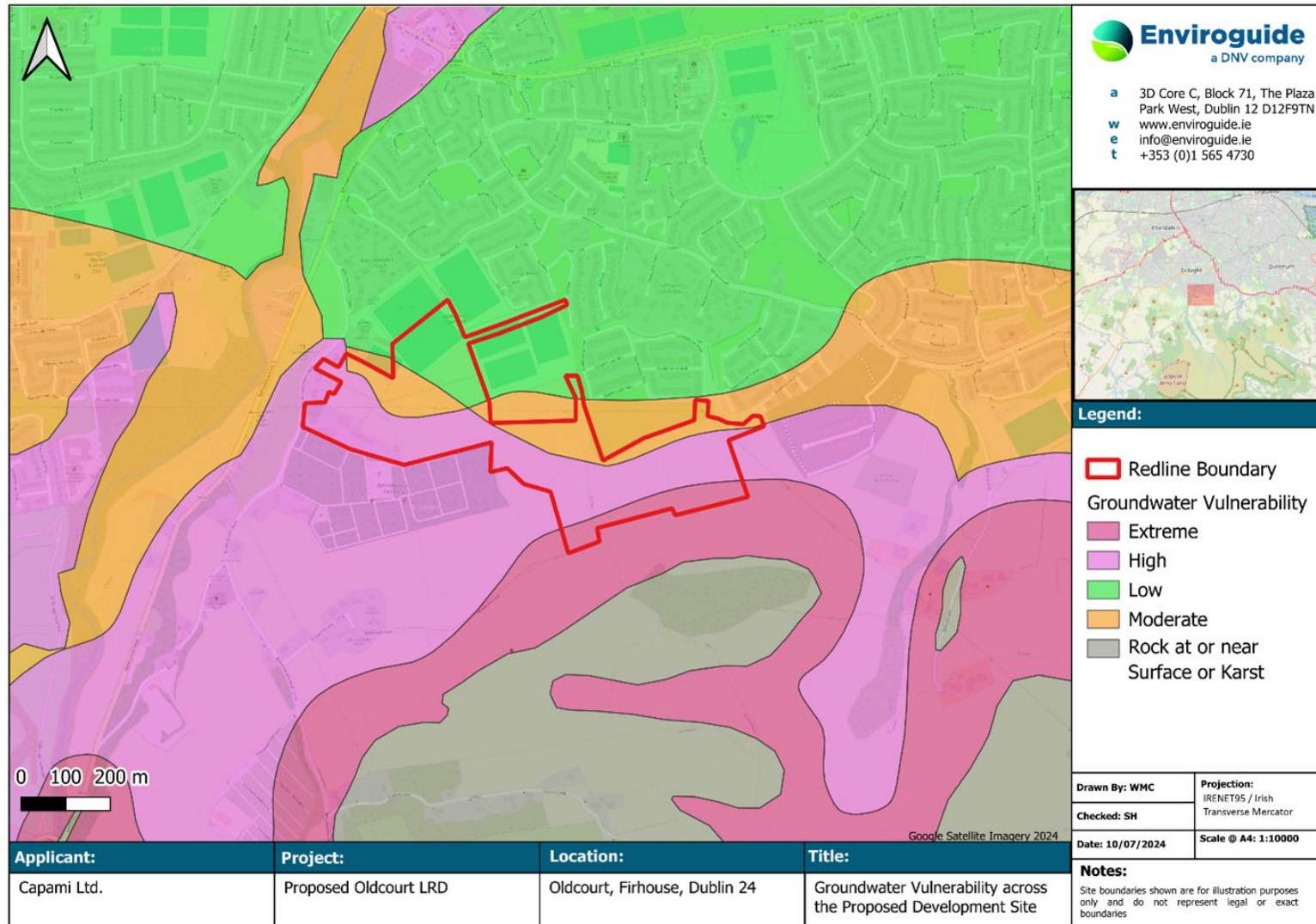


FIGURE 5. GROUNDWATER VULNERABILITY ACROSS THE PROPOSED DEVELOPMENT SITE.

4.1.2 Relevant Field Survey results

4.1.2.1 Habitats & Flora

Several distinct habitat types, as well as mosaics of different habitats (codes follow Fossitt, 2000) were recorded within the habitat survey area (Figure 6). The Site consists mostly of 'Improved agricultural grassland – GA1', with mature 'Hedgerows – WL1' and 'Treelines – WL2' acting as field dividers. 'Drainage ditches – FW4' were recorded under some of the linear habitats.

Japanese knotweed (*Reynoutria japonica*) was recorded at the Site during the walk over surveys carried out on the 20th of September 2023, 7th of October 2023 or 4th of June 2024. This species is listed as a high impact invasive species and is also listed under regulation S.I 477. Butterfly bush (*Buddleia davidii*) was also recorded during the Site walkover and is listed as a medium impact invasive species.

4.1.2.2 Fauna

No evidence of Annex II species such as lesser horseshoe bat (*Rhinolophus hipposideros*) or otter (*Lutra lutra*) were recorded on Site, nor was there any suitable habitat available for them on the Site. However, otter has historically been recorded in the Dodder, which is hydrologically linked to the Site.

The Site was deemed to have no significant habitats suitable for wintering SCI bird species during the bird surveys carried out by BMc. No SCI bird species were recorded on the Site during the bird surveys.

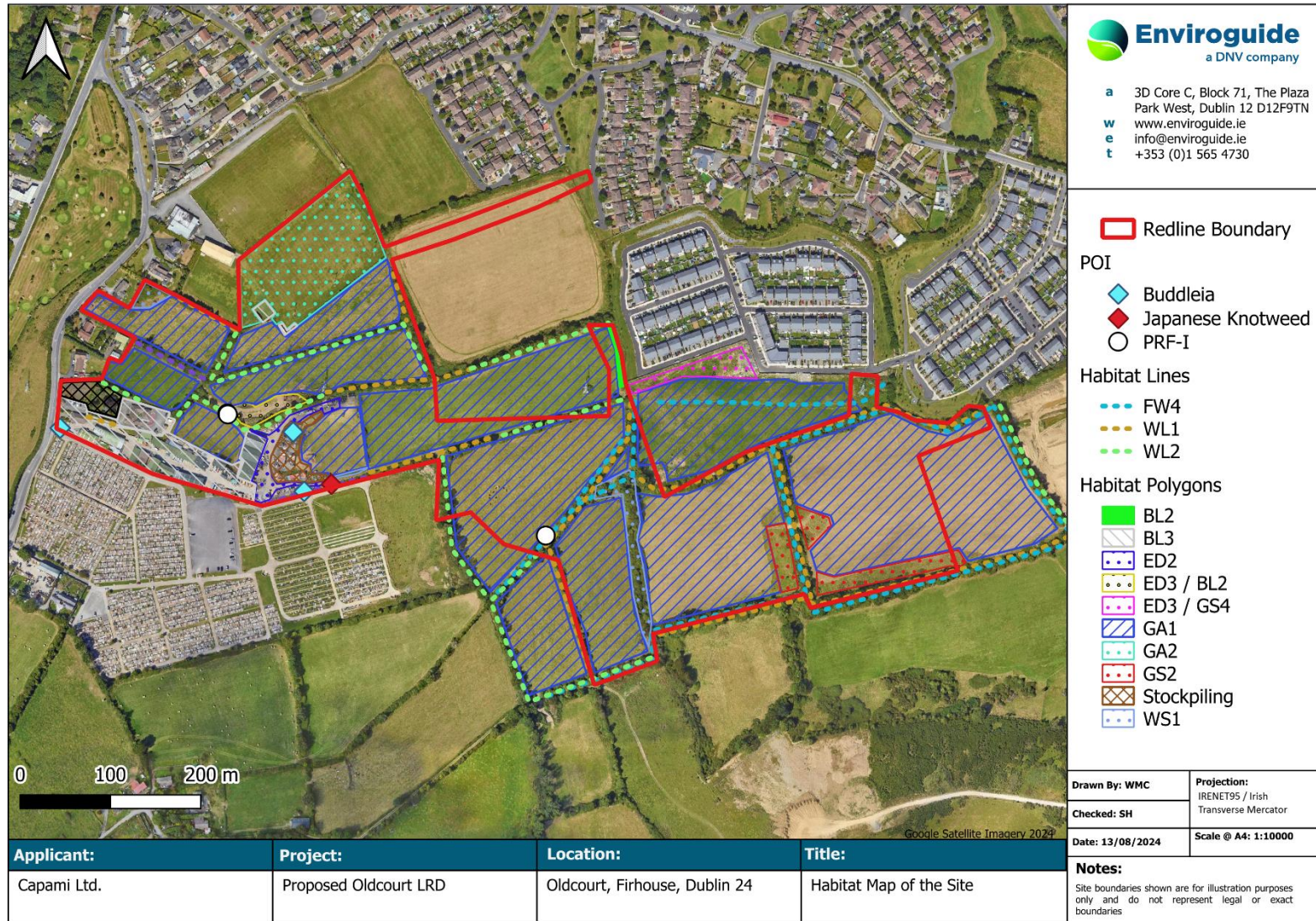


FIGURE 6. MAP OF HABITATS RECORDED AT THE SITE.

4.2 Summary Of Relevant European Sites

The following descriptions of the relevant habitats and species occurring within the European site(s) considered in this NIS have been extracted from the Standard Data Forms (EEA 2023), Site Synopses (NPWS 2019a) and any supporting documents available for the relevant site(s).

4.2.1 Glenasmole Valley SAC (001209)

The following descriptions of the Glenasmole Valley SAC (001209) are extracted from the Site Synopsis (NPWS, 2013) for the site:

“Glenasmole Valley in south Co. Dublin lies on the edge of the Wicklow uplands, approximately 5 km from Tallaght. The River Dodder flows through the valley and has been impounded here to form two reservoirs which supply water to south Dublin. The non-calcareous bedrock of the Glenasmole Valley has been overlain by deep drift deposits which now line the valley sides. They are partly covered by scrub and woodland, and on the less precipitous parts, by a herb-rich grassland. There is much seepage through the deposits, which brings to the surface water rich in bases, which induces local patches of calcareous fen and, in places, petrifying springs.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (= priority; numbers in brackets are Natura 2000 codes): [6210] Orchid-rich Calcareous Grassland* [6410] Molinia Meadows [722 0] Petrifying Springs.*

*The areas of Molinia meadows at the site occur associated with the grasslands on the valley sides, and in particular in seepage and flushed areas. Typical and indicative species include Greater Bird’s-foot-trefoil (*Lotus uliginosus*), Tormentil (*Potentilla erecta*), Purple Moor-grass (*Molinia caerulea*), Sharp-flowered Rush (*Juncus acutiflorus*), Adder’s-tongue (*Ophioglossum vulgatum*), Meadow Thistle (*Cirsium dissectum*) and Fen Bedstraw. As noted above, orchids are frequent in the grasslands at this site.*

*Woodland occurs in patches around the site. On the east side of the valley, below the northern lake, a Hazel (*Corylus avellana*) wood has developed on the unstable calcareous slopes and includes other species such as Ash (*Fraxinus excelsior*), Downy Birch (*Betula pubescens*), Goat Willow (*Salix caprea*) and (Irish) Whitebeam (*Sorbus hibernica*). Spring Wood-rush (*Luzula pilosa*), Wood Speedwell (*Veronica montana*) and Bramble (*Rubus fruticosus* agg.) are present in the ground flora.*

*Wet semi-natural broadleaved woodland is also found around the reservoirs and includes Alder (*Alnus glutinosa*) and willow (*Salix* spp.), with Yellow Iris (*Iris pseudacorus*), horsetails (*Equisetum* spp.), Bramble and localised patches of Japanese Knotweed (*Reynoutria japonica*), an introduced and invasive species. The lake shore vegetation is not well developed, which is typical of a reservoir.*

There are occasional patches of Reed Canary-grass (Phalaris arundinacea) and Purpleloosestrife (Lythrum salicaria), which are more extensive around the western shore of the northern lake, along with Common Marsh-bedstraw (Galium palustre) and Water Mint (Mentha aquatica). Other vegetation includes Shoreweed (Littorella uniflora) and the scarce Water Sedge (Carex aquatilis).

As well as the Green-winged Orchid and Small-white Orchid, two other threatened species which are listed in the Irish Red Data Book occur in the site, Yellow Archangel (Lamiastrum galeobdolon) and Yellow Bird's-nest (Monotropa hypopitys). Small-white Orchid is legally protected under the Flora (Protection) Order, 1999.

The site provides excellent habitat for bats, with at least four species recorded: Pipistrelle, Leisler's, Daubenton's and Brown Long-eared. Otter occurs along the river and reservoirs.

The site supports Kingfisher, an Annex I species under the E.U. Birds Directive.

Glenasmole Valley contains a high diversity of habitats and plant communities, including three habitats listed on Annex I of the E.U. Habitats Directive. The presence of four Red Data Book plant species further adds to the value of the site, as does the presence of populations of several mammal and bird species of conservation interest."

4.2.2 Wicklow Mountains SAC (002122)

The following descriptions of the Wicklow Mountains SAC are extracted from the Site Synopsis (NPWS 2017b) for the site:

"Wicklow Mountains SAC is a complex of upland areas in Counties Wicklow and Dublin, flanked by the Blessington reservoir to the west and Vartry reservoir in the east, Cruagh Mountain in the north and Lybagh Mountain in the south. Most of the site is over 300 m, with much ground over 600 m. The highest peak is 925 m at Lugnaquilla. The Wicklow uplands comprise a core of granites flanked by Ordovician schists, mudstones and volcanics. The form of the Wicklow Glens is due to glacial erosion. The topography is typical of a mountain chain, showing the effects of more than one cycle of erosion. The massive granite has weathered characteristically into broad domes. Most of the western part of the site consists of an elevated moorland, covered by peat. The surrounding schists have assumed more diverse outlines, forming prominent peaks and rocky foothills with deep glens. The dominant topographical features are the products of glaciation. High corrie lakes, deep valleys and moraines are common features of this area. The substrate over much of the area is peat, usually less than 2 m deep. Poor mineral soil covers the slopes, and rock outcrops are frequent. The Wicklow Mountains are drained by several major rivers including the Dargle, Liffey, Dodder, Slaney and Avonmore. The river water in the mountain areas is often peaty, especially during floods."

"The vegetation over most of Wicklow Mountains SAC is a mosaic of heath, blanket bog and upland grassland (mostly on peaty soil, though some on

mineral soil), stands of dense Bracken (Pteridium aquilinum), and small woodlands mainly along the rivers. Mountain loughs and corrie lakes are scattered throughout the site.”

“Due to the underlying rock strata, the water of the rivers and streams is acid rather than alkaline. The water is generally oligotrophic and free from enrichment. The lakes within the area range from the high altitude lakes of Lough Firrib and Three Lakes, to the lower pater-noster lakes of Glendalough, Lough Tay and Lough Dan. Spectacular corrie lakes, such as Loughs Bray (Upper and Lower), Ouler, Cleevaun, Arts, Kellys and Nahanagan, exhibit fine sequences of moraine stages. The deep lakes are characteristically species-poor, but hold some interesting plants including an unusual form of Quillwort (Isoetes lacustris var. morei), a stonewort (Nitella sp.) and Floating Bur-reed (Sparganium angustifolium).”

“Mammals and birds which occur are typical of the uplands. Deer are abundant, mainly hybrids between Red and Sika Deer. Other mammals include Hare, Badger and Otter, the latter being a species listed on Annex II of the E.U. Habitats Directive.”

“Wicklow Mountains is important as a complex, extensive upland site. It shows great diversity from a geomorphological and a topographical point of view. The vegetation provides examples of the typical upland habitats with heath, blanket bog and upland grassland covering large, relatively undisturbed areas. In all, twelve habitats listed on Annex I of the E.U. Habitats Directive are found within the site. Several rare or protected plant and animal species occur, adding further to its value.”

4.2.3 Qualifying Interests and Conservation Objectives

The QIs/SCIs and their respective conservation objectives for each of the relevant European site(s) are detailed in Table 4 below.

TABLE 4. QUALIFYING INTERESTS (QIs) / SPECIAL CONSERVATION INTERESTS (SCIs) AND THEIR CONSERVATION OBJECTIVES FOR THE RELEVANT EUROPEAN SITES. THE CONSERVATION STATUS OF EACH QI / SCI WAS SOURCED FROM THE RELEVANT STANDARD DATA FORM(S) (SOURCE: EEA (2023)) AND THE LATEST NATIONAL STATUS IS TAKEN FROM THE LATEST ARTICLE 17 REPORT (NPWS, 2019A & 2019B) AND BOCCI¹ RESPECTIVELY.

QI / SCI (* = priority habitat)	Conservation Status	National Status	Conservation Objective
Glenasmole Valley SAC (001209)			
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites)	Good	Bad	To <u>restore</u> the favourable conservation condition of these habitats in Glenasmole Valley SAC.

¹ Birds of Conservation Concern in Ireland (BOCCI) 2020-2026 (Gilbert, Stanbury & Lewis, 2021). The colours represent the species designation on the various BOCCI lists.

QI / SCI (* = priority habitat)	Conservation Status	National Status	Conservation Objective
6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	Good	Bad	
7220 Petrifying springs with tufa formation (Cratoneurion)*	Good	Inadequate	
Wickow Mountains SAC (002122)			
Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]	Good	Bad	To <u>maintain</u> the favourable conservation condition of these habitats in Wicklow Mountains SAC.
Natural dystrophic lakes and ponds [3160]	Good	Inadequate	
Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	Good	Bad	To <u>restore</u> the favourable conservation condition of these habitats in Wicklow Mountains SAC.
European dry heaths [4030]	Good	Bad	
Alpine and Boreal heaths [4060]	Good	Bad	
Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]	Excellent	Inadequate	To <u>maintain</u> the favourable conservation condition of these habitats in Wicklow Mountains SAC.
Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]	Good	Bad	To <u>restore</u> the favourable conservation condition of these habitats in Wicklow Mountains SAC.
Blanket bogs (* if active bog) [7130]	Good	Bad	
Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]	Excellent	Inadequate	
Calcareous rocky slopes with chasmophytic vegetation [8210]	Good	Inadequate	
Siliceous rocky slopes with chasmophytic vegetation [8220]	Good	Inadequate	
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	Average or Reduced	Bad	
<i>Lutra lutra</i> (Otter) [1355]	Good	Favourable	

4.3 Impact Prediction

This section follows the S-P-R method as outlined in section 3.5 to identify if and how any of the QIs/SCIs of the relevant European site are linked to the Proposed Development. Once the connections have been identified the potential impacts of the Proposed Development on the **Glenasmole Valley SAC** and the **Wicklow Mountains SAC** in light of their QIs/SCIs are assessed.

For the purposes of objectivity and clarity, mitigation measures **are not considered in the impact prediction**. This includes all measures that will act limit or eliminate the potential for significant adverse impacts on the relevant European site.

4.3.1 Potential impacts of the Proposed Development on key Species and Habitats

The following elements of the Proposed Development were identified and assessed for their potential to cause likely significant effects on European sites.

Construction Phase (Estimated duration: 7 years)

- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies tributaries of the Dodder, located within and adjacent to the Site;
- Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater, that discharges into the tributaries of the Dodder, located within and adjacent to the Site;
- Spread of invasive floral species offsite via construction traffic (both commercial and private vehicles).

Operational Phase (Estimated duration: Indefinite)

- No potential for significant impacts on any European sites during the Operational Phase of the Proposed Development were identified in the Screening for AA.

The QIs/SCIs for the relevant European sites are described in Table 5 below. Descriptions are sourced from the relevant Conservation Objectives and Site Synopses (NPWS, 2013; NPWS, 2017a,b; NPWS, 2021), Standard Data Forms (EEA, 2024) as well as the surveys carried out at the Site.

Table 5 below outlines the identified pathways between the Proposed Development and the relevant QIs/SCIs and assesses the potential significant effects of the Proposed Development on these. The assessment outlined below does not consider mitigation measures that will be implemented as part of the Proposed Development, but the nature of mitigation that will be required to eliminate the potential for significant adverse impacts is identified in the table, if any.

For details on the specific attributes and their conservation targets for each QI/SCI, please refer to the relevant Conservation Objectives documents, available at www.npws.ie/protected-sites. Those attributes which may be impacted by the Proposed Development (if any) are outlined in Table 5 below.

TABLE 5. ASSESSMENT OF THE POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT ON THE QIs AND SCIs OF THE RELEVANT EUROPEAN SITES. THOSE QIs/SCIs FOR WHICH NOTABLE IMPACT PATHWAYS WERE IDENTIFIED HAVE BEEN HIGHLIGHTED IN GREEN.

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
Glenasmole Valley SAC (001209)			
Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]; <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410]; Petrifying springs with tufa formation (<i>Cratoneurion</i>)* [7220]			
<i>Conservation Objective:</i> To restore the favourable conservation condition of these habitats in Glenasmole Valley SAC			
<p>The Annex I habitats within this site were last mapped in 2018, and none were mapped to occur near the Ballinascorney road.</p> <p>The extent of the <i>Molinia</i> meadows [6410] habitat is unknown, while the semi-natural dry grassland [6210] is mapped to be approx. 3.93ha across the SAC. A total of 18 petrifying springs [7220] are mapped along the reservoirs within the SAC, however it is noted that this is a dynamic habitat type; springs may become blocked naturally due to deposition of tufa at upwelling springs, and any changes to water supply may also affect this habitat type.</p> <p>The Conservation Objectives document for this SAC notes that the total extent of each of these habitats may be more or less than mapped.</p>	<p><u>Land pathway:</u></p> <p>Construction traffic (both commercial and private vehicles) via traffic along the Ballinascorney Road originating from the Proposed Development Site.</p> <p>No other pathways identified.</p>	<p>As the full extent of these habitats is not fully known, it is assumed under the precautionary approach that any of them may be present near where the Ballinascorney Road crosses through the SAC.</p> <p>The meadow and grassland habitats ([6210] and [6410]) have a defined attribute to limit non-native species to less than 1% of the total coverage within each habitat type. Additionally, each of the SAC's habitat types have attributes and targets relating to maintaining or increasing their habitat area and distribution. As invasive species invade on the areas taken up by native species, spread of invasive species from the Site to the SAC could therefore impact on the conservation attributes relating to habitat area of each of the QI habitats within this SAC. In addition, invasive species are typically difficult to fully eradicate once established, leading to likely long-term impacts on the SAC habitats.</p> <p>In the absence of proper precaution, invasive species currently present at the Site, namely Japanese knotweed (<i>Reynoutria japonica</i>) and butterfly bush (<i>Buddleia davidii</i>), could spread to the SAC via vehicles travelling from the Proposed Development Site. During Site works, if vehicles are driven too close to or over cutting of these species, cuttings and/or seeds may attach to the vehicles and be spread offsite. Similarly, if care is not taken when transporting invasive species materials off the Site, there is potential for spread of these species off site if cuttings or seeds fall off transport vehicles.</p> <p>Should invasive species spread into the SAC area, the potential impacts on the QI habitats are considered to be likely significant, negative and</p>	<p><u>Construction Phase:</u></p> <p>Preparation of an Invasive Species Management Plan (ISMP).</p> <p>Best Practice Biosecurity measures.</p> <p><u>Operational Phase</u></p> <p>None required.</p>

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
		long-term. As such, appropriate mitigation is required to control the potential for spread of invasive species off the Site into this SAC.	
Wicklow Mountains SAC (002122)			
<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflora</i>) [3110]; Natural dystrophic lakes and ponds [3160]; Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]; European dry heaths [4030]; Alpine and Boreal heaths [4060]; Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]; Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]; Blanket bogs (* if active bog) [7130]; Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]; Calcareous rocky slopes with chasmophytic vegetation [8210]; Siliceous rocky slopes with chasmophytic vegetation [8220]; Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p><i>Conservation Objective:</i> To restore or maintain the favourable conservation condition of these habitats in Wicklow Mountains SAC.</p>			
<p>These habitats are all located within the SAC boundaries, and due to SAC's location upstream of the Site and approx. 4km south of the Site (as-the-crow-flies), no potential pathways for impacts were identified. As such, no further assessment of these QI habitats is required within this NIS.</p>			None required
Otter (<i>Lutra lutra</i>) [1355]			
<p><i>Conservation Objective:</i> To maintain the favourable conservation condition of this species in Wicklow Mountains SAC.</p>			
<p>The extent of otter river habitat for the SAC is estimated under the assumption that otters will utilise the length of the river from estuary to headwaters. As such, the total river habitat utilised by otters is estimated at 359.1km.</p> <p>According to Ó'Neíll et al. (2009), otter ranges vary from 7km to 21km along river corridors, so it is likely that otters associated with</p>	<p>Indirect pathway via potential water quality impacts on the Dodder downstream of the Site.</p>	<p>The attributes and targets for otter within the Wicklow Mountains SAC consist of avoiding significant declines in the distribution of the species, extents of freshwater (lake and riverine) and terrestrial habitats utilised by otter, including holt and couch sites and commuting routes (such as between islands), and ensuring no significant declines in fish biomass occurs.</p> <p>The Proposed Development could result in short-term, significant impacts on the water quality of the Dodder River, in the absence of site-specific consideration of surface water protection measures. Otters rely on fish in their diet, particularly salmonids, eel and sticklebacks. Accidental discharge of silts, sediments and pollutants such as cementitious materials or hydrocarbons can clog spawning beds,</p>	<p>Construction Phase:</p> <p>Site-specific Surface Water Protection Measures.</p> <p>Operational Phase</p> <p>None required.</p>

Description	Impact Pathway(s)	Assessment of likely significant effects	Mitigation Requirement
<p>the Wicklow Mountains SAC could be present in the Dodder River downstream of the Proposed Development.</p>		<p>suffocate benthic fauna and flora that fish rely on, and lead to the tainting of fish tissues making them toxic to consume by other fauna such as otter. Life stages of fish shortly after hatching are most vulnerable to impacts from pollution events.</p> <p>Thus, appropriate, site-specific detail on best practice surface water protection measures are required to ensure no indirect significant adverse impacts on otter associated with Wicklow Mountains SAC occur.</p>	

4.3.2 Potential for In-combination Effects

4.3.2.1 Existing Planning Permissions

A search of planning applications located within a 500m radius of the Site of the Proposed Development was conducted using online planning resources such as the National Planning Application Database (NPAD) (MyPlan.ie) and South Dublin County Council online map. Any planning applications listed as granted or decision pending from within the last five years were assessed for their potential to act in-combination with the Proposed Development and cause likely significant effects on the relevant European sites. Long-term developments granted outside of this time period were also considered where applicable.

It is noted that many of the granted and pending applications are of small scale and not likely to have in combination effects. It is further noted that the majority of other developments within the vicinity of the Site of the Proposed Development are applications granted for large scale residential developments under the Ballycullen-Oldcourt LAP. The larger developments in the vicinity of the Proposed Development are outlined in Table 6.

TABLE 6. GRANTED AND PENDING DEVELOPMENT APPLICATIONS WITHIN 500 M OF THE PROPOSED DEVELOPMENT. LOCATION AND DISTANCE GIVEN IS RELATIVE TO THE PROPOSED DEVELOPMENT.

Planning Reference	Planning Authority	Status	Location
SD20A/0177	SDCC	Granted	Approx. 250m SW
<p>Development Description Importation and spreading of topsoil and subsoil of approximately 24,888 tonnes (to be < 25,000 tonnes) on agricultural lands measuring circa 2.6 hectares for the purposes of improving the quality of land for agricultural activity; surface water management controls comprising a swale and land drain and all ancillary site works; intention to apply for a waste licence for the development works.</p> <p>Potential for In-combination effects The granted development was subject to AA Screening which concluded no potential for significant impacts on any European sites from the granted development, alone or in combination with other projects and plans. The granted development is only for importation of clean soils, and the site is also removed from any notable watercourses with links to European sites. As such, no potential for in-combination effects with the Proposed Development are anticipated.</p>			
SD19A/0104 ABP-305800-19	SDCC / ABP	Granted	Adjacent to the north
<p>Development Description 24 dwellings on a site of 0.76 hectares comprising: 8 two storey, four bed semi-detached houses, 12 two storey, three bed semi-detached and terraced houses, 4 two bed apartments in 1 two storey apartment block; all associated site development works, car parking, open spaces and landscaping including modification to an extant permission under Ref. SD14A/0180; permission is also sought for the demolition of a detached dwelling on site. Access to the development will be via an adjoining development known as Dodderbrook (permitted under Ref. SD14A/0180)</p>			

Potential for In-combination effects

The granted development was subject to AA Screening which concluded no potential for significant impacts on any European sites from the granted development, alone or in combination with other projects and plans. No specific reference is made to potential surface water discharges during construction, however, the development is required to comply with best practice development standards that will ensure no significant discharges of polluted surface waters are made into the surface water network that could link to European sites downstream. The site is not yet built on and is currently serving as a compound for the construction of SD17A/0468.

Considering the above, and the lack of impact pathways concerning the Proposed Development identified in this report, no significant in-combination effects with the Proposed Development are anticipated.

4.3.2.2 Relevant Policies and Plans

The local policies and plans detailed in section 2.2 above were reviewed and considered for possible in-combination effects with the Proposed Development. Each of these plans has undergone AA, and where potential for likely significant effects has been identified (e.g., in the case of the SDCC County Development Plan 2022 – 2028), an NIS has been prepared which identifies appropriate mitigation. As such, it is considered that the plans and policies listed will not result in in-combination effects with the Proposed Development. SDCC County Development Plan 2022 – 2028 has directly addressed the protection of European sites and biodiversity through specific objectives. The above listed plans are not being relied upon to rule out potential significant effects on European sites.

4.3.6.3 Operation of Ringsend WwTP

This section addresses in more detail the general issue of potential in-combination effects with Ringsend WWTP arising from the Operational Phase of the Proposed Development and other Developments, including future developments.

In summary, the impact of the Proposed Development and any future development has already been appropriately considered and assessed as part of the application process for the existing planning permissions pertaining to Ringsend WWTP.

The 2012 Ringsend Wastewater Treatment Plant application for planning permission (Ref. PL.29N.YA0010) was for a population equivalent of 2.4 million and was predicated on the findings of the 2005 GSDSDS. The GSDSDS set out the drainage requirements for the Greater Dublin Area (GDA) up to 2031. The GSDSDS relied on the Regional Planning Guidelines (RPGs) and the National Spatial Strategy (NSS) in order to estimate the future projected population increases for the GDA. The studies indicated a predicted growth in population from 1.2 million in 2002 to just over 2 million in 2031 for the GDA region.

In June 2018 Irish Water applied for and subsequently received planning permission in 2019 for upgrade works to the Ringsend WWTP facility. The first phase of upgrade works to Ringsend WWTP was completed in December 2021, which increased the capacity of the plant by 400,000 P.E. These works, together with the future works permitted will ultimately increase the capacity of the facility from 1.6 million P.E. to 2.4

million P.E. by 2025 (Irish Water website: <https://www.water.ie/projects/local-projects/ringsend/>).

Therefore, both the initially permitted 2012 upgrade and the permitted 2019 revised upgrade (Ref. ABP-301798-18) for Ringsend Wastewater Treatment Plant take account of population growth up to 2.4 million population equivalents. Both applications were subject to EIA and therefore accompanied by an EIAR and accompanied by an AA screening report and NIS.

Notwithstanding the above, on an individual basis the Operational Phase of the Proposed Development will have an imperceptible effect on the habitats/species/qualifying interests listed within the relevant European sites specifically South Dublin Bay and River Tolka Estuary SPA (site code 004024), North Bull Island SPA (004006), and North Dublin Bay SAC (000206), in terms of flows, relative to the total amount of waste water currently being received at Ringsend WWTP (the total predicted peak foul water run-off rate from the Proposed Development is estimated at 2.220 l/s).

Under the heading of "Potential impact – Discharge of treated effluent, impacts on water quality, effects on qualifying interests", the NIS (Irish Water, 2018b) for the Ringsend Wastewater Treatment Plant 2019 revised upgrade provides as follows:

"In the operational phase, the proposed upgrade of the Ringsend WWTP Component will result in an increase in the plant capacity and also an improvement in the final effluent quality. This will result in a reduction in the licensed parameters discharged into the receiving water, with significantly reduced quantities in respect of ammonia and phosphorous."

This NIS goes on to state as follows:

"Overall no significant adverse effects on are foreseen and indeed, a slight positive effect is possible. Effects of discharge during the operational phase of the project from the upgrade project will therefore have imperceptible impact on habitats listed within these European sites."

In respect of this issue, the NIS concludes as follows:

"Thus, there is no potential for in-combination impacts of any other plan and project with the Ringsend WWTP Component of the proposed Upgrade Project."

The EIAR for the ongoing upgrade at Ringsend WWTP (Irish Water, 2018a) also details the lack of any significant impacts to European sites observed as a result of the current stormwater overflow discharge levels at the WWTP. During storm events, once the capacities of the holding tanks are surpassed, the WWTP releases overflow via an outfall at Pigeon House Rd into the lower Liffey estuary.

The EIAR carried out in relation to said upgrade concluded that in the 'do nothing' scenario, i.e., wherein the upgrade is not carried out; the current existing levels of nutrient input to Dublin Bay as a result of stormwater overflow from the WWTP, are not deemed to pose significant threats to the integrity of European sites located within or adjacent to Dublin Bay, or any of their Conservation Objectives regardless of said upgrade.

The EIAR report acknowledges that under the do-nothing scenario “the areas in the Tolka Estuary and North Bull Island channel will continue to be affected by the cumulative nutrient loads from the river Liffey and Tolka and the effluent from the Ringsend WWTP”, which could result in a decline in biodiversity and the deterioration of the biological status of Dublin Bay (Irish Water, 2018a). Nevertheless, these negative impacts of nutrient over-enrichment are considered “unlikely”. This is because historical data suggests that pollution in Dublin Bay has had little or no effect on the composition and richness of the benthic macroinvertebrate fauna. The EIAR notes that “although a localised decline could occur, it is not envisaged to be to a scale that could pose a threat to the shellfish, fish, bird or marine mammal populations that occur in the area.” Furthermore, the EIAR notes that significant impacts on waterbird populations foraging on invertebrates in Dublin Bay due to nutrient over-enrichment are “unlikely” to occur. What is important to note is that the do-nothing scenario predicts that nutrient and suspended solid loads from the WWTP will “continue at the same levels and the impact of these loadings should maintain the same level of effects on marine biodiversity” and that “if the status quo is maintained there will be little or no change in the majority of the intertidal faunal assemblages found in Dublin Bay which would likely continue to be relatively diverse and rich across the bay.”

Therefore, it can be concluded that likely significant effects on marine biodiversity and the European sites within Dublin Bay from the current operation of Ringsend WWTP are unlikely. Importantly, this conclusion is not dependent upon any future works to be undertaken at Ringsend. Thus, in the absence of any upgrading works, significant in-combination effects to European sites in this regard are not deemed likely to arise, and therefore likely significant effects involving foul waters produced by the Proposed Development also do not have the potential to occur.

It is therefore concluded that there is no possibility for any significant in-combination effects to European sites involving the Proposed Development.

4.4 Avoidance and Mitigation Measures

The following sections outline the avoidance and mitigation measures identified to eliminate the potential for significant adverse impacts on the relevant European sites. Once the recommended measures outlined in the following sections are implemented in full, no adverse impacts on the relevant European sites or their QIs/SCIs are anticipated as a result of the Proposed Development.

4.4.1 Summary of Potential Effects

Potential significant effects arising from the **Construction Phase** include:

- Spread of invasive alien flora during the Construction Phase via vehicles leaving the Proposed Development Site.
- Water quality impacts in designated sites arising from surface water run-off during the Construction, in particular during heavy rainfall events.

The following mitigation and enhancement measures will ensure no significant effects arise on designated sites as a result of the Proposed Development, either alone or in combination with other projects.

4.4.2 Construction Phase Mitigation

4.4.2.1 Mitigation 1: Preparation of an Invasive Species Management Plan

A comprehensive Invasive Species Management Plan (ISMP) shall be prepared prior to beginning of construction to limit the potential for spread of Japanese knotweed and butterfly bush within and outside of the Site. Due to the dynamic nature and relatively fast spread of the invasive floral species found at the Site, this measure is included as a mitigation measure in this NIS in anticipation of any time delays between a grant of permission and commencement of works.

Should the commencement of works be delayed beyond 2025, the preparation of the ISMP will require an updated botanical survey of the Site during the botanical growing season, to ensure the current extent of any invasive species at the Site is accurately mapped to inform the ISMP. Should works commence prior to this, it is assumed that the extent of the invasive species would be accurate based on the existing survey data.

The ISMP shall be prepared by suitably qualified ecologist/botanist, and signed off by SDCC prior to commencement of works. The ISMP should at minimum contain the following features:

- Current extent of invasive species on Site;
- Suitable removal methods for each invasive species encountered on Site; and
- Appropriate management of each invasive species encountered on Site.

4.4.2.2 Mitigation 2: Biosecurity Measures

The following best practice site hygiene and biosecurity measures will be in place to avoid spread of the invasive flora identified at the Site into the surrounding areas during Construction Phase and to limit the potential for spread of invasive species at the Site:

- Fencing and signage will be erected to identify and cordon off the areas containing invasive species, until such a time that they are effectively removed.
- All soils/materials being introduced to the Site will be sourced from a certified invasive flora-free source site, to ensure no introduction of invasive plant materials to the Site occurs.
- Personnel working on or between sites will ensure their clothing and footwear are cleaned, ensuring they are visually free from soil and organic debris, in order to prevent inadvertent spread of invasive plant material.
- Where possible tracked vehicles should not be used within an area of infestation, such as within the current industrial area of the Site, until cleared from all invasive floral material as per the prepared ISMP.
- All vehicles containing invasive plant materials for transportation and disposal offsite will be suitably secured with tarpaulins etc., to ensure no inadvertent dissemination of invasive materials en-route.
- Works should be planned to avoid double handling of infected plants materials/soils as far as possible to reduce the risk of spread.
- All vehicles entering or leaving the Site will have been suitably checked and pressure-washed to ensure no introduction of invasive flora to and from the Site. Measures such as a drive through hygiene bath or footbaths will be considered where appropriate, such as for any works within the current industrial area prior to removal of all invasive floral material from the Site.
- Designated wash-down area to ideally be located in the northwestern area of the Site, away from sensitive receptors such as watercourses, ditches, drains etc.
- Material/water left after vehicles have been pressure-washed must be contained, collected and disposed of appropriately (These waters **must not** under any circumstances be discharged to drains, ditches or watercourses within the Site).
- All chemicals used for the control of non-native species should be stored and used in a responsible manner.

4.4.2.3 Mitigation 3: Site-specific Surface Water Mitigation Measures

While best practice development standards have been included in a Construction and Environmental Management Plan (CEMP) (Enviroguide, 2024b), further details are outlined in this section to ensure the ecology of internal ditches and streams, as well as any downstream watercourses such as the Dodder River are not adversely impacted.

With regards to protecting the existing water features and the water quality of the Dodder, the following measures are recommended following the latest guidance on Construction works in or adjacent to watercourses (Inland Fisheries Ireland, 2016):

- Silt traps/ponds will not be positioned directly adjacent to the ditches or streams within and adjacent to the Site.
- A buffer zone should remain between any silt trap and any water features (ditches and streams), with natural vegetation left intact. Where natural vegetation within the buffer zone is not an option, imported materials such as

terram, straw bales, or coarse to fine gravel should be used either separately or in combination as appropriate.

- Silt fencing will be positioned where required to prevent overland surface water flows over sloped lands to the existing streams and ditches.
- Pre-cast concrete should be preferred over poured concrete to minimise risks for the construction of any headwall features and culverts.
- Any instream works should take place between July-September to avoid any potential risks to downstream fisheries habitats.
- Where temporary storage of imported materials or excavated soils is required on Site, these temporary storage areas will be surrounded with silt fencing to filter out any suspended solids from surface water arising from these materials.
- Under no circumstances will any untreated wastewater generated onsite (from equipment washing, road sweeping etc.) be released into nearby drains.

In addition, the following will be considered when designing fuel, oil and other chemical storage at the Site for the Construction Phase:

- The storage area for fuels, oils and other chemicals will be located as far away from the existing drainage ditches and stream as feasible. This is likely to be located at the northwest area of the Site to minimize potential for any overland flows to existing ditches and streams at the Site or immediately adjacent.

Once the above details are implemented in full together with the best practice measures detailed in the accompanying CEMP (Enviroguide, 2024), it is considered that no significant adverse impacts on the water quality of the Dodder are likely to occur.

4.5 Monitoring

4.5.1 Construction Phase

For the duration of the Construction Phase, an Ecological Clerk of Works (ECoW) will be appointed several weeks prior to commencement of works. This is to ensure sufficient time to review the required scope of ECoW works to carry out.

The **ECoW** will carry out the following tasks prior to and/or during the Construction Phase to monitor the effectiveness of the mitigation measures outlined in this NIS:

- Review the final surface water protection measures prior to and post installation to ensure they are fit for purpose. Note that this may require periodic reviews through the phased approach of the Proposed Development.

In addition, the **Contractor** will be required to monitor the effectiveness of the biosecurity measures throughout the Construction period:

- Ensure construction personnel adhere to biosecurity measures: boots and clothes are checked prior to leaving the Site for organic matter and soils.

- Carry out periodic checks of washdown areas to ensure they function appropriately (no discharges to drains, ditches or streams) and remain effective.

5 CONCLUSION

This Natura Impact Statement details the findings of the Stage 2 Appropriate Assessment conducted to further examine the potential direct and indirect impacts of the Proposed LRD at Bohernabreena, Oldcourt, Ballycullen, Co. Dublin, on the following European Sites:

- Glenasmole Valley SAC (001209)
- Wicklow Mountains SAC (002122)

The above sites were identified by a screening exercise that assessed likely significant effects of a range of impacts that have the potential to arise from the Proposed Development. The Appropriate Assessment investigated the potential direct and indirect effects of the proposed works, both during construction and operation, on the integrity and qualifying interests of the above European sites, alone and in combination with other plans and projects, taking into account the site's structure, function and conservation objectives.

Where potentially significant effects were identified, a range of mitigation and avoidance measures have been suggested to avoid them. This NIS has concluded that, once the avoidance and mitigation measures are implemented as proposed, the Proposed Development will not have an adverse effect on the integrity of the above European sites, individually or in combination with other plans and projects. Where applicable, a suite of monitoring surveys have been proposed to confirm the efficacy of said measures in relation to ensuring no adverse impacts on the habitats of the relevant European sites have occurred.

As a result of the complete, precise and definitive findings in of this NIS, it has been concluded, beyond reasonable scientific doubt, that the Proposed Development will have no significant adverse effects on the QIs, SCIs and on the integrity and extent of Glenasmole Valley SAC or Wicklow Mountains SAC. Accordingly, the Proposed Development will not adversely affect the integrity of any relevant European site.

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