Enviroguide
CONSULTING

enviroguide.ie

Natura Impact Statement

PRESENTED TO

Alida Stewart & John McGrane

Cottbrook, Castlekelly, Bohernabreena, Co. Dublin, D24YY42

May 2023

Environmental Consultancy Services

DOCUMENT CONTROL SHEET

Client	Alida Stewart & John McGrane
Project Title	Proposed Development at Cottbrook, Castlekelly, Bohernabreena, Co. Dublin, D24 YY42
Document Title	Natura Impact Statement

Revision	Status	Author(s)	Reviewed	Approved	Issue Date
00	Draft for internal review	ROH *Project Ecologist*	SOB *Project Ecologist*	-	-
01	Draft for Client Review	ROH *Project Ecologist*	SOB *Project Ecologist*	BL *Principal Ecologist*	25/05/2023
02	Final				

REPORT LIMITATIONS

Synergy Environmental Ltd. t/a Enviroguide Consulting (hereafter referred to as "Enviroguide") has prepared this Report for the sole use of Alida Stewart & John McGrane in accordance with the Agreement under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by Enviroguide.

The information contained in this Report is based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by Enviroguide has not been independently verified by Enviroguide, unless otherwise stated in the Report.

The methodology adopted and the sources of information used by Enviroguide in providing its services are outlined in this Report.

The work described in this Report is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

All work carried out in preparing this Report has used, and is based upon, Enviroguide's professional knowledge and understanding of the current relevant national legislation. Future changes in applicable legislation may cause the opinion, advice, recommendations or conclusions set out in this Report to become inappropriate or incorrect. However, in giving its opinions, advice, recommendations and conclusions, Enviroguide has considered pending changes to environmental legislation and regulations of which it is currently aware. Following delivery of this Report, Enviroguide will have no obligation to advise the client of any such changes, or of their repercussions.

Enviroguide disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to Enviroguide's attention after the date of the Report.

Certain statements made in the Report that are not historical facts may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the Report, such forward-looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. Enviroguide specifically does not guarantee or warrant any estimate or projections contained in this Report.

Unless otherwise stated in this Report, the assessments made assume that the Site and facilities will continue to be used for their current or stated proposed purpose without significant changes.

The content of this Report represents the professional opinion of experienced environmental consultants. Enviroguide does not provide legal advice or an accounting interpretation of liabilities, contingent liabilities or provisions.

If the scope of work includes subsurface investigation such as boreholes, trial pits and laboratory testing of samples collected from the subsurface or other areas of the Site, and environmental or engineering interpretation of such information, attention is drawn to the fact that special risks occur whenever engineering, environmental and related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing programme implemented in accordance with best practice and a professional standard of care may fail to detect certain conditions. Laboratory testing results are not independently verified by Enviroguide and have been assumed to be accurate. The environmental, ecological, geological, geotechnical, geochemical and hydrogeological conditions that Enviroguide interprets to exist between sampling points may differ from those that actually exist. Passage of time, natural occurrences and activities on and/or near the Site may substantially alter encountered conditions.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Alida Stewart & John McGrane, to prepare an Appropriate Assessment (AA) Screening Report in relation to a Proposed Development at Cottbrook, Castlekelly, Bohernabreena, 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 two nearby European sites, namely:

- Glenasmole Valley SAC (001209).
- 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 wholly Irish Owned 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 reporting has been carried out by qualified and experienced ecologists and environmental consultants. ROH, Ecologist with Enviroguide, undertook the desktop research and report writing for this report. ROH has a M.Sc. (Hons.) in Ecological Assessment from University College Cork, and a B.Sc. (Hons.) in Environmental Science from the University of Galway. ROH has a wealth of experience in desktop research, literature scoping-review, and report writing, as well as practical field experience (Habitat surveys, invasive species surveys, bird surveys). ROH has extensive experience in compiling Biodiversity Chapters of Environmental Impact assessment Reports (EIARs), Ecological Impact Assessment Reports (EclAs), AA and NIS reports, and in the overall assessment of potential impacts to ecological receptors from a range of developments.

1.3 Description of Proposed Development

1.3.1 Site Location

The Site of the Proposed Development, as shown in Figure 1, is located approximately 1km southeast of the Bohernabreena Reservoir in Glenasmole Valley and is currently comprised of a single dwelling on a greenfield site. The Site is bound along the south by O'Rourke's Lane, with Cottbrook Stream flowing along the east of the Site into the River Dodder abutting the northeast of the Site. Single dwellings are located along the north and southwest borders of the Site, with the remainder of the Site bounded by agricultural land.

1.3.2 Proposed Development Description

The Proposed Development will consist of an extension to the rear of the existing dwelling. This extension will be single storey and located at a half level above the ground floor of the existing dwelling to respect the Site contours. The extension will have a four-sided pitched roof with a central roof light and be linked to the existing house via a flat roofed element. This application includes for attendant works of drainage and landscaping to facilitate the above.

1.3.3 Drainage and Water Supply

1.3.3.1 Surface water

As outlined in the Proposed Drainage Plan (Clancy Moore, 2023), surface water discharge from the paved areas and the roofs will pass through a Class 1 by-pass petrol / oil interceptor and then be discharged to ground via a proposed soakaway. As such, there will be no direct discharge of surface water to nearby watercourses.

The proposed Sustainable Drainage Systems (SuDS) measures included as part of the Proposed Development consist of permeable paving, a swale at the east of the existing carpark, a soakaway at the north of the existing house, and 3 no. bioretention/ rainwater gardens.

1.3.3.2 Foul Drainage

The Site is currently served by a septic tank system to the north of the existing dwelling comprised of a septic tank and percolation area. The capacity of this Tricel Vento 6 septic tank system is in compliance with Environmental Protection Agency (EPA) Code of Practise (EPA, 2021). The Proposed Development will be served by this septic tank system.

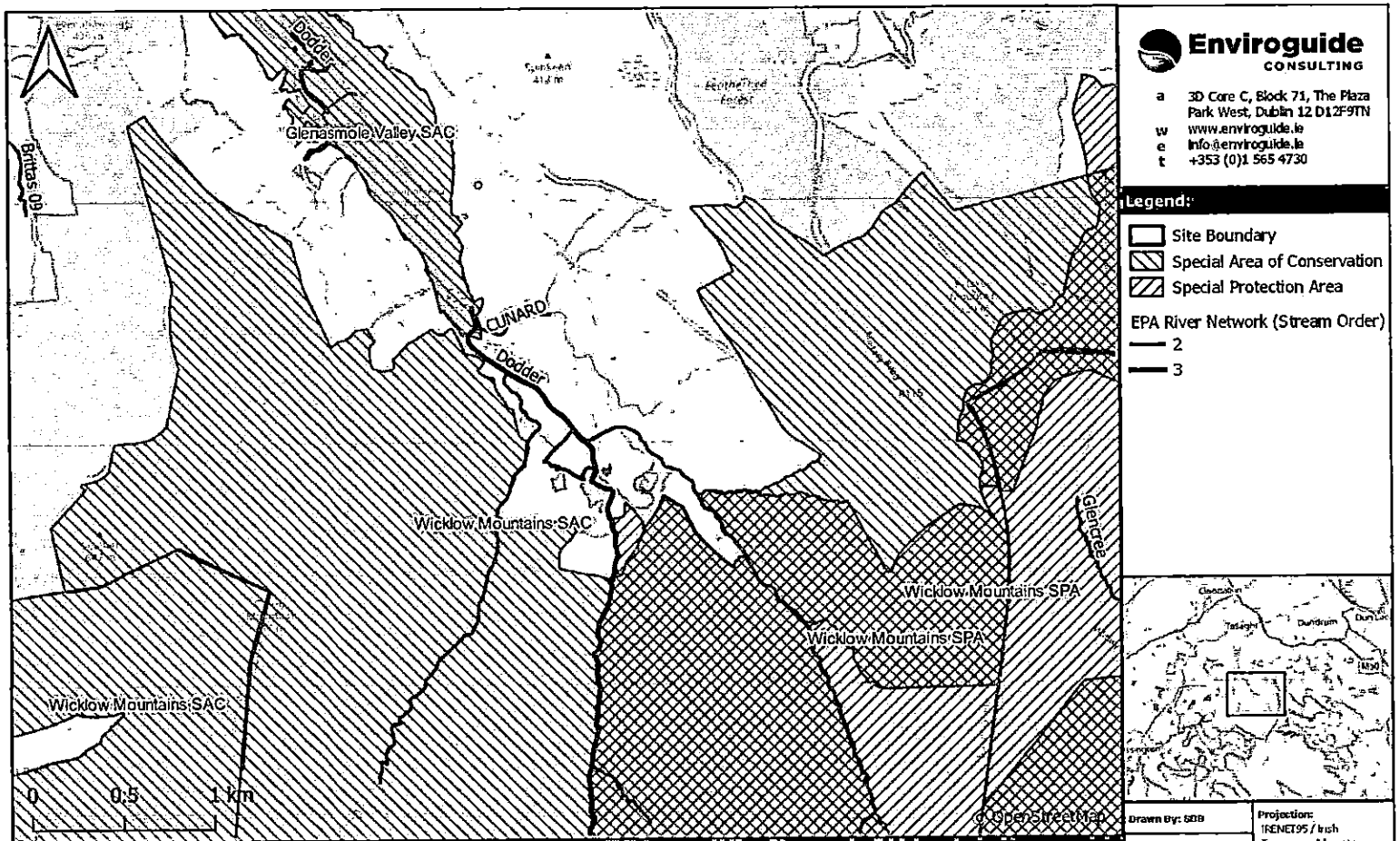

FIGURE 1. SITE LOCATION

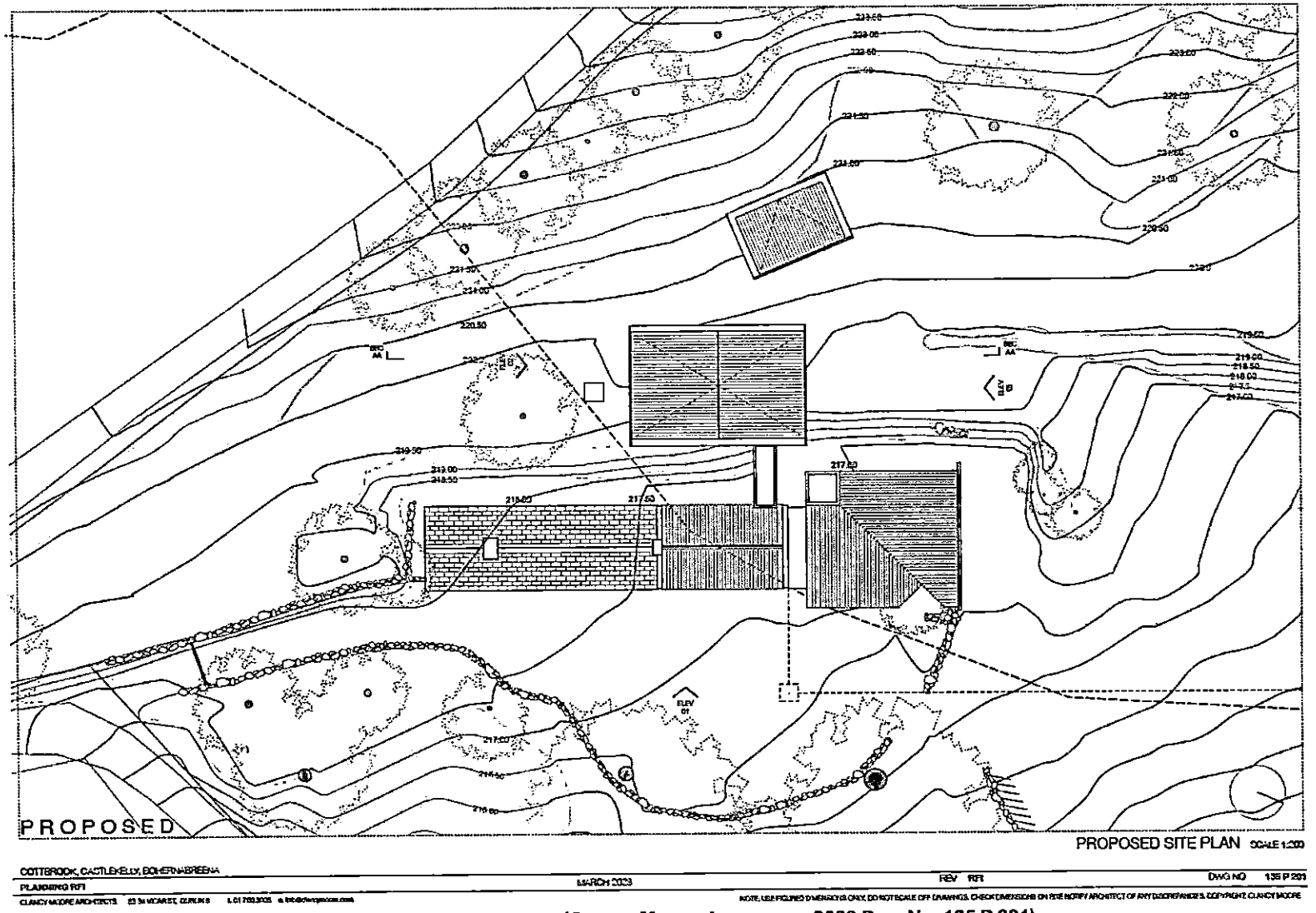

FIGURE 2. PROPOSED SITE LAYOUT (CLANCY MOORE ATCHITECTS, 2023 DRG. NO. 135 P 201).

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

Policies and objectives of the South Dublin County Development Plan 2022 – 2028 that are of relevance to this Screening 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.

2.3 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 May 2023.

The conclusion of the AA Screening Report is as follows:

"*The Proposed Development at Cottbrook, Castlekelly, Bohernabreena, Co. Dublin, D24 YY42 has been assessed taking into account:*

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

Upon examination of the relevant information including in particular the nature of the Proposed Development and the likelihood of significant effects on European sites, the possibility may not be excluded that the Project will have a likely significant effect on any of the European sites listed below:

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

Accordingly, a NIS has been prepared for the Project and is included under separate cover".

As such, this NIS will assess the potential effects of the Proposed Development on

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

A Source-Pathway-Receptor (S-P-R) link was identified between the Proposed Development and the above European sites during the Construction Phase. Glenasmole Valley is linked to the Proposed Development via a hydrological pathway and Wicklow Mountains SAC is linked to the Proposed Development via air/land pathways.

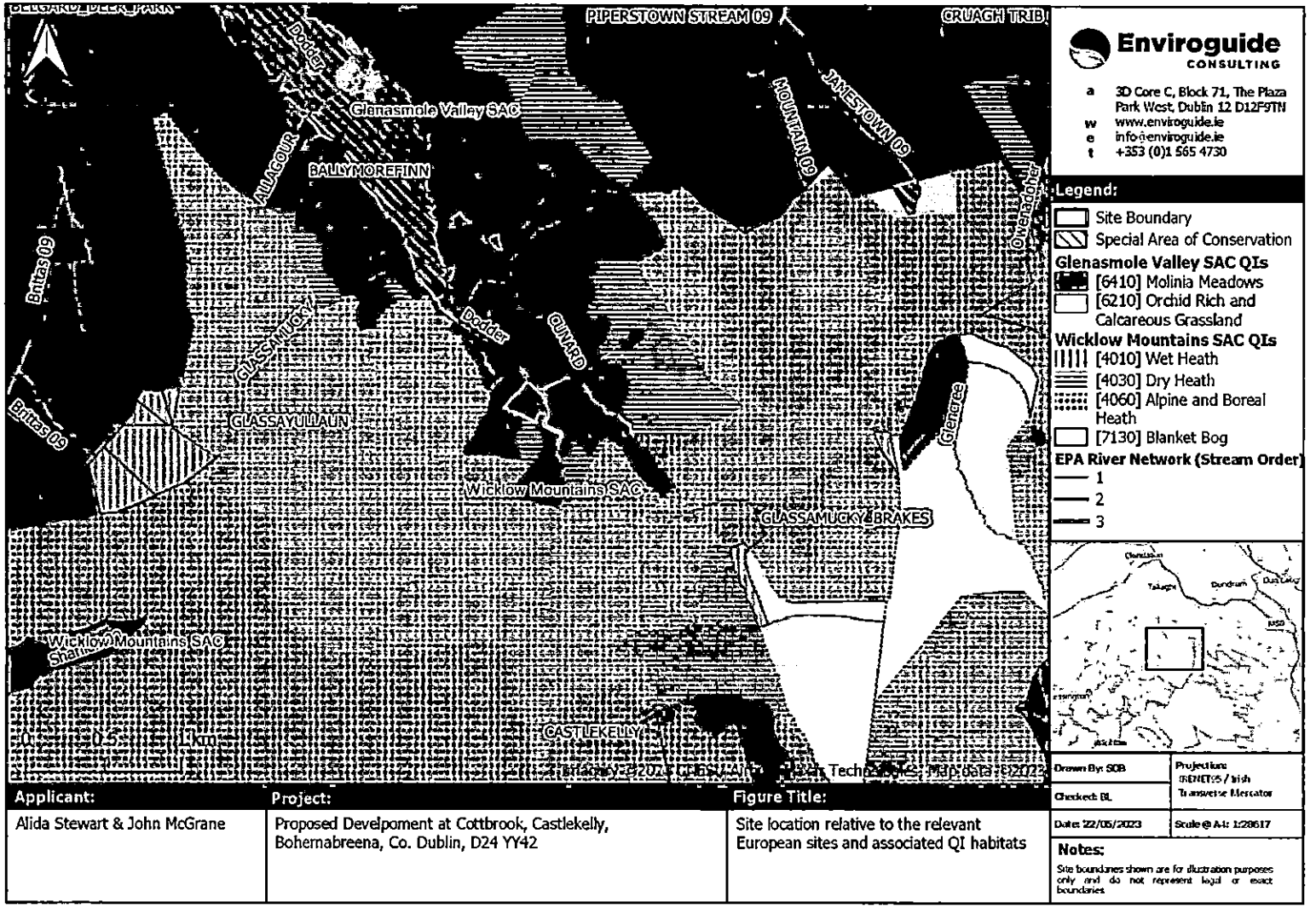

FIGURE 3. LOCATION OF RELEVANT EUROPEAN SITES AND ASSOCIATED HABITATS AS IDENTIFIED IN AA SCREENING (ENVIROGUIDE 2023)

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 2023);
- 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);
- 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 in view of their SSCOs;

- 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 May 2023, 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*;
- 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.*gis.epa.ie*;
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at *www.gsi.ie*;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland; 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 Impact Prediction

Potential impacts on the relevant European sites identified during the AA Screening are based on information regarding their QIs and/or SCI species, and the attributes and targets relating to their Site-Specific Conservation Objectives (SSCOs). These have been informed by the desk study carried out prior to the preparation of this report.

Impact prediction is based on the 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 Conservational 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 the specific attributes and targets likely to be affected for those QIs/SCIs linked to the Proposed Development via notable S-P-R connections, and a description of the potential impacts.

Where the preceding steps identified any potential for adverse impacts on any QIs/SCIs or their SSCOs for the relevant European sites, appropriate mitigation measures to eliminate the potential for significant adverse effects are identified in this report.

3.5 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 of the Proposed Development is within the *Liffey and Dublin Bay* catchment (Catchment ID: 09) and *Dodder_SC_010* sub-catchment (Sub-Catchment ID: 09_16) (EPA, 2023).

The closest watercourse to the Site is the Cottbrook Stream (EU Code: IE_EA_09D010100, Segment Code: 09_1358) which flows along the east boundary of the Site before entering the River Dodder (EU Code: IE_EA_09D010100, Segment Code: 09_333) at the northeast boundary of the Site. During the most recent survey period of 2016 – 2021, these watercourses were classified as *Not at Risk* of not meeting its Water Framework Directive (WFD) objectives, and were assigned a *Good* ecological status (EPA, 2023). The closest EPA station located 380m east of the Site

designated the River Dodder as *High* (Q-Value: 4-5) in 2022 (station code: RS09D010010) (EPA, 2023) (Table 1).

The River Dodder then flows into the Bohernabreena Reservoir, also referred to as Glenasmole Upper (EU Code: IE_EA_09_70), 1km northwest of the Site. During the most recent survey period of 2016 – 2021, this waterbody was classified as *Not at Risk* of not meeting its WFD objectives, and was assigned a *Good* ecological status (EPA, 2023).

The Site is situated on the Kilcullen groundwater body (EU Code: IE_EA_G_003), which is *At Risk* of not meeting its WFD objectives (Table 2). The aquifer type within the Site boundary is a *Poor Aquifer* (Pl) aquifer on bedrock which is *Generally Unproductive except for Local Zones*. The groundwater rock units underlying the aquifer are classified as *Granites & other Igneous Intrusive rocks* (GSI, 2023). The level of vulnerability of the Site to groundwater contamination via human activities is *Extreme* throughout the majority of the Site, with a small area of *Rock at or near surface* within the southwest of the Site. The predominant soil on Site is classified as *Carrigvahanagh*, with *River* present along the east and northeast borders, and the subsoil is primarily Granite sands and gravels (*GGr*) and Granite till (*TGr*) (EPA, 2023), with Alluvium undifferentiated (*A*) along the east and northeast boundaries, and Bedrock at surface (*Rck*) within the southwest of the Site (GSI, 2023).

TABLE 1. EPA MONITORING STATIONS AND ASSIGNED Q VALUES

EPA Monitoring Station name	Station Code	Location from Site	Distance from Site	Assigned Q value
DODDER - 1.3 km u/s Reservoir u/s distributary	RS09D010010	East	380m	4-5 "High"

TABLE 2. WFD RISK AND WATER BODY STATUS

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (km)	WFD water body status (2013-2018)	WFD 3rd cycle Risk Status	Hydraulic Connection to the Site
Surface Water Bodies						
Cottbrook Stream and River Dodder	IE_EA_09D 010100	East and northeast	N/A	High	Not at Risk	Abutting the Site boundary
Lake Water Bodies						
Glenasmole Upper	IE_EA_09_ 70	North-west	1.0	Good	Not at Risk	Downstream of the Site
Groundwater Bodies						
Kilcullen Groundwater Body	IE_EA_G_0 03	N/A	N/A	Good	At Risk	Underlying groundwater-body

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 2013, NPWS 2017) and any supporting documents available for the relevant site(s).

The QIs/SCIs and their respective conservation objectives for each of the relevant European site(s) are detailed in Table 3 and Table 4. The QI habitats relative to the Proposed Development are shown in Figure 3.

4.2.1 Glenasmole Valley SAC [001209]

4.2.1.1 Site summary

The following descriptions of the Glenasmole Valley SAC 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.

At this site, examples of calcareous fen and flush occur between the two reservoirs, where sedges (including Carex flacca and C. panicea) are joined by such species as Grass-of-parnassus (Parnassia palustris), Few-flowered Spike-rush (Eleocharis quinqueflora), Zig-zag clover (Trifolium medium) and the scarce Fen Bedstraw (Galium uliginosum). Tufa depositing springs are long-known from the site, along the valley sides, and some have substantial tufa mounds and banks. Tufa formation is also known from small streams within the woodland at the site.

Orchid-rich grassland occurs in the drier parts of this site and in places grades into Molinia meadow. Orchids recorded in these habitats include Frog Orchid (Coeloglossum viride), Northern Marsh-orchid (Dactylorhiza purpurella), Fragrant Orchid (Gymnadenia conopsea), Marsh Helleborine (Epipactis palustris), Early-purple Orchid (Orchis mascula) and Greater Butterfly Orchid (Platanthera chlorantha). Two further orchid species, both Red Data Book-listed, have also been found here, Greenwinged Orchid (Orchis morio) and Small-white Orchid (Pseudorchis albida).

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 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."

4.2.1.2 Conservation objectives

Site specific conservation objectives (SSCO) have been compiled for Glenasmole Valley SAC (NPWS, 2021). These are outlined in Table 3

TABLE 3. QIS / SCIS AND THEIR CONSERVATION OBJECTIVES FOR GLENASMOLE VALLEY SAC. THE CONSERVATION STATUS OF EACH QI / SCI WAS SOURCED FROM THE RELEVANT STANDARD DATA FORMS, AVAILABLE FROM THE NATURA 2000 NETWORK VIEWER.

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
Glenasmole Valley SAC		
6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites)	Good	To restore the favourable conservation condition of these habitats for this SAC.
[6410] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	Good	
[7220] Petrifying springs with tufa formation (Cratoneurion)	Good	

4.2.2 Wicklow Mountains SAC

4.2.2.1 Site summary

The following description of the Site is 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 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.

The two dominant vegetation communities in the area are heath and blanket bog. Heath vegetation, with both wet and dry heath well represented, occurs in association with blanket bog, upland acid grassland and rocky habitats. The wet heath is characterised by species such as Heather (Calluna vulgaris), Cross-leaved Heath (Erica tetralix), cottongrasses (Eriophorum spp.), Tormentil (Potentilla erecta), Mat-grass (Nardus stricta), bent grasses (Agrostis spp.) and bog mosses (Sphagnum spp.). In places the wet heath occurs in conjunction with flush communities and streamside vegetation, and here species such as Heath Rush (Juncus squarrosus) and sedges (Carex spp.) are found. Dry heath at this site is confined to shallow peaty soils on steep slopes where drainage is better and particularly in sheltered conditions. It is

characterised by species such as Heather, gorse (Ulex spp.), Bell Heather (Erica cinerea), Bilberry (Vaccinium myrtillus), Purple Moor-grass (Molinia caerulea) and lichens (Cladonia spp.). In places the heath grades into upland grassland on mineral soil.

Blanket bog is usually dominated by cottongrasses, Heather and bog mosses. On steeper slopes there is some flushing and here Purple Moor-grass, Heath Rush and certain Sphagnum species become more common. The Liffey Head blanket bog is among the best of its kind in eastern Ireland, with deep peat formations and an extensive system of dystrophic pools developed among the hummocks and hollows on the bog surface.

Alpine vegetation occurs on some of the mountain tops, notably in the Lugnaquilla area, and also on exposed cliffs and scree slopes elsewhere in the site. Here alpine heath vegetation is represented with heath species such as Crowberry (Empetrum nigrum) and Cowberry, and others such as Dwarf Willow (Salix herbacea), the greygreen moss Racomitrium lanuginosum, and scarce species such as Mountain Clubmoss (Diphasiastrum alpinum), Firmoss (Huperzia selago), and Starry Saxifrage (Saxifraga stellaris). Some rare arctic-alpine species have been recorded, including Alpine Lady's-mantle (Alchemilla alpina) and Alpine Saw-wort (Saussurea alpina).

The site supports a range of rare plant species. Parsley Fern (Cryptogramma crispa), Marsh Clubmoss (Lycopodiella inundata), Lanceolate Spleenwort (Asplenium billotii), Small-white Orchid (Pseudorchis albida) and Bog Orchid (Hammarbya paludosa) are all legally protected under the Flora (Protection) Order, 2015. Greater Broomrape (Orobanche rapum-genistae), Alpine Saw-wort and Alpine Lady's-mantle are listed in the Irish Red Data Book. The rare Myxomycete fungus Echinostelium colliculosum has been recorded from the Military Road.

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. Pine Marten has recently been confirmed as occurring within the site. Among the birds, Meadow Pipit, Skylark, Raven and Red Grouse are resident throughout the site. Wheatear, Whinchat and the scarce Ring Ouzel are summer visitors. Wood Warbler and Redstarts are rare breeding species of the woodlands. Dipper and Grey Wagtail are typical riparian species. Merlin and Peregrine, both Annex I species of the E.U. Birds Directive, breed within the site. Recently, Goosander has become established as a breeding species".

4.2.2.2 Conservation objectives

SSCOs have been compiled for Wicklow Mountain SAC (NPWS, 2017a). These are outlined in Table 4.

TABLE 4. QIS / SCIS AND THEIR CONSERVATION OBJECTIVES FOR WICKLOW MOUNTAINS SAC. THE CONSERVATION STATUS OF EACH QI / SCI WAS SOURCED FROM THE RELEVANT STANDARD DATA FORMS, AVAILABLE FROM THE NATURA 2000 NETWORK VIEWER.

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
Wicklow Mountains SAC		

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
[3110] Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	Good	To <u>maintain</u> or <u>restore</u> the favourable conservation condition of these habitats for this SAC.
[3160] Natural dystrophic lakes and ponds	Good	
[4010] Northern Atlantic wet heaths with *Erica tetralix*	Good	
[4030] European dry heaths	Good	
[4060] Alpine and Boreal heaths	Good	
[6130] Calaminarian grasslands of the *Violetalia calaminariae*	Excellent	
[6230] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	Good	
[7130] Blanket bogs (* if active bog)	Good	
[8110] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)	Excellent	
[8210] Calcareous rocky slopes with chasmophytic vegetation	Good	
[8220] Siliceous rocky slopes with chasmophytic vegetation	Good	
[91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	Average	
[1355] *Lutra lutra* (otter)	Good	

4.3 Impact Prediction

This section follows the S-P-R method as outlined in section 3.4 to identify if and how any of the QIs/SCIs of the relevant European sites are linked to the Proposed Development. Once the connections have been identified the potential impacts of the Proposed Development on Glenasmole Valley SAC (001209) and Wicklow Mountains SAC (002122) in light of their QIs/SCIs and their SSCOs 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, including those integrated into the design (e.g., SuDS measures).

4.3.1 Source-Pathway-Receptor Connections

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

Construction Phase

- Uncontrolled releases of silt, sediments and/or other pollutants to air due to earthworks;
- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies or surface water networks;
- Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater;
- Increased noise, dust and/or vibrations as a result of construction activity;
- Increased dust and air emissions from construction traffic;
- Increased lighting in the vicinity as a result of construction activity; and
- Increased human presence and activity as a result of construction activity.

Operational Phase

- Surface water drainage from the Site of the Proposed Development;
- Foul water from the Proposed Development; and
- Increased lighting at the Site and in the vicinity emitted from the Proposed Development.

The QIs/SCIs for the relevant European sites are described in Table 5 below. Descriptions are sourced from the relevant Conservation Objectives and supporting documents (NPWS 2017a, NPWS 2021).

Where a potential S-P-R link between the Proposed Development and a QI/SCI has been identified, they have been highlighted in green and that QI/SCI will be assessed further in this report.

TABLE 5. THE QUALIFYING INTERESTS (QIS)/SPECIAL CONSERVATION INTERESTS (SCIS) FOR THE RELEVANT EUROPEAN SITE(S), AND THEIR IDENTIFIED S-P-R CONNECTION TO THE PROPOSED DEVELOPMENT (IF ANY). THOSE QIS/SCIS WHERE THE IDENTIFIED S-P-R CONNECTION DEMANDS FURTHER ASSESSMENT OF POTENTIAL IMPACTS ARE HIGHLIGHTED IN GREEN.

QI / SCI	QI /SCI description	S-P-R connection
Wicklow Mountains SAC (NPWS 2017)		
[3110] Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	According to the Conservation Objectives document for this SAC, this QI habitat lies in Lough Dan, Tay, Upper and Lower Lakes (Glendalough) and Upper and Lower Bray. The closest recorded location of this QI habitat lies over 4km southeast of the Site.	Due to the distance between the Proposed Development and these QIs and the lack of a S-P-R connection, the Proposed Development does not provide for any impacts to these QI habitats.
[3160] Natural dystrophic lakes and ponds	Owing to their altitude, all pools and lakes with the exception of the Lower Lake (Glendalough) and Lough Dan have been mapped as potential 3160 habitat. This QI habitat is widespread within the SAC. The closest recorded location of this QI habitat lies over 4km southeast of the Site.	
[4010] Northern Atlantic wet heaths with *Erica tetralix*	This QI habitat is documented to occur throughout the SAC, often occurring in associated with other habitats including blanket bog, upland acid grassland and rocky habitats. This QI habitat is particularly well-developed around the Kippure and Lugnaquilla mountain areas. From current available data the total area of this QI habitat is estimated to be approximately 8,248ha, covering 25% of the SAC. This habitat was recorded within 105m of the Proposed Development.	Given the distribution of this QI habitat throughout the SAC, there is a potential Land/Air pathway to these QI habitats via dust deposition during the Construction Phase. It is **deemed unlikely** that the Proposed Development would have a significant effect on the conservation attributes/targets for these QI habitats due to the nature and scale of the Proposed Development and the upland locations of these QI habitats. Nevertheless, the potential for dust deposition during the Construction Phase of the Proposed Development will be addressed with appropriate mitigation measures. No other S-P-R connection was identified.
[4030] European dry heaths	This QI habitat occurs throughout the SAC, often occurring in associated with blanket bog, upland acid grassland and rocky habitats. It is typically present on shallow peaty soils on steep slopes and in sheltered conditions. From current available data the total area of this QI habitat is estimated to be approximately 4,21ha, covering 13% of the SAC. Examples of this habitat are present in Kippure, Seefin, Powerscourt Mountains, Djouce Mountains, Lugnaquilla, Camaraholl and the Ballineddan Mountains.	

QI / SCI	QI /SCI description	S-P-R connection
	While this habitat has not been mapped in detail for this SAC, there are records of this habitat immediately south of the Site (NPWS, 2023).	
[4060] Alpine and Boreal heaths	Alpine and Boreal heaths occur at high altitudes within the SAC and the total area of this habitat within the SAC is estimated to be approximately 326 ha, covering 1% of the SAC. Examples of this habitat type present within the SAC are found in the Kippure, Lugnaquilla and Mullaghcleevaun mountain areas. This habitat was recorded within 105m of the Proposed Development.	
[6130] Calaminarian grasslands of the *Violetalia calaminariae*	In Wicklow Mountains SAC this QI habitat is documented to occur at Glendasan, Foxrock Mine and east of Lough Nahanagan. Several other small areas of this habitat are known to occur on mine-spoil in the upper Glendassan and the old mine workings at Glendalough. The nearest recorded example of this habitat within the SAC is >20km south.	No S-P-R connection exists between the Proposed Development and these QI habitats.
[6230] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	According to the Conservation Objectives document for this SAC (NPWS, 2017), this habitat occurs on the north-eastern slopes of Carrigshouk Mountains and on the north-western slopes of Ballineddan Mountains. From current available data the total area of the QI habitat is estimated to be approximately 2ha, covering less than 1% of the SAC. The nearest recorded example of this habitat within the SAC is 15km south on Carrigshouk Mountain.	
[7130] Blanket bogs (* if active bog)	This QI habitat has not been mapped in detail for the Wicklow Mountains SAC however from current available data the total area of the QI habitat is estimated to be approximately 12,376 ha and blanket bog is documented to occur throughout the SAC, often occurring in association with other habitats including heath and upland acid grasslands. This habitat was recorded within 105m of the Proposed Development.	Given the distribution of this QI habitat throughout the SAC, there is a potential Land/Air pathway to this QI habitat via dust deposition during the Construction Phase. It is **deemed unlikely** that the Proposed Development would have a significant effect on the conservation attributes/targets for this QI habitat due to the nature and scale of the Proposed Development. Nevertheless, the potential for dust deposition during the Construction Phase of the

QI / SCI	QI /SCI description	S-P-R connection
		Proposed Development will be addressed with appropriate mitigation measures. No other S-P-R connection was identified.
[8110] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)	This habitat is documented to occur at Glen of Imaal, Ballineddan Mountain, Lough Nahanagan and Lugnaquilla. From current available data the total area of this QI habitat is estimated to be approximately 54ha, covering less than 1% of the SAC. The nearest recorded example of this habitat within the SAC is >20km south at Lough Nahanagan.	No S-P-R connection exists between the Proposed Development and these QI habitats.
[8210] Calcareous rocky slopes with chasmophytic vegetation	This QI habitat has not been mapped in detail for the Wicklow Mountains SAC however this habitat is known to occur within the corrie associated with Lough Ouler and close to the summit of Lugnaquilla. The nearest recorded example of this habitat within the SAC is >17km south on at Lough Ouler.	
[8220] Siliceous rocky slopes with chasmophytic vegetation	This QI habitat has not been mapped in detail for the Wicklow Mountains SAC but from current available data the total area of the QI habitat is estimated to be approximately 36 ha. This habitat occurs in locations with significant rock exposures. The nearest example of this habitat to the Proposed Development is on the steep slopes around Lower Lough Bray >5km southeast on the steep slopes around lower Lough Bray.	
[91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	The minimum area of this QI habitat within the SAC is estimated to be 215.4 ha. According to Map 5 of the Conservation Objectives document, the closest mapped location of old sessile oak woods within the SAC lies >12 km southeast of the Proposed Development.	
[1355] *Lutra lutra* (otter)	Several rivers rise in the likely ZOI for otter, including the Glendoo Brook and Owendoher, tributaries of the River Dodder and tributaries of the Dargle. Otter were also recorded within the Bohernabreena Reservoir.	The Site is hydrologically connected to the Bohernabreena Reservoir via the Cottbrook Stream and River Dodder. As such otter associated with this SAC may be impacted by effects to water

QI / SCI	QI /SCI description	S-P-R connection
		quality and resource as a result of the Proposed Development. It is **deemed unlikely** that the Proposed Development would have a significant effect on the conservation attributes/targets for otter due to the nature and scale of the Proposed Development. Nevertheless, the potential for a reduction in water quality during the Construction Phase of the Proposed Development will be addressed with appropriate mitigation measures.
Glenasmole Valley SAC (NPWS, 2021)		
[6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites)	The total area of the habitat recorded in the SAC is 3.98 ha, however further unmapped areas of this habitat are likely to be present within the SAC. The site synopsis for this SAC describes this QI as occurring on the drier parts of the SAC. The closest mapped location of this habitat within the SAC lies >2 km north of the Proposed Development.	No S-P-R connection between the Proposed Development and this QI habitat.
[6410] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	The total area of this QI habitat within the SAC is currently unknown although the habitat is known to occur near the center of the SAC, on the eastern side of the reservoirs. The areas of Molinia meadows within the SAC are associated with the grasslands on the valley sides and in particular in seepage and flushed areas. The closest mapped location of this QI habitat within the SAC lies 0.8km north of the Proposed Development.	No S-P-R connection between the Proposed Development and this QI habitat.
[7220] Petrifying springs with tufa formation (Cratoneurion)*	The total current area of this habitat within the SAC is currently unknown. 18 petrifying springs with a total area of 10,950m^3 were mapped at Glenasmole Upper Reservoir and Glenasmole Lower Reservoir. This is a dynamic habitat and one which is likely to be significantly impacted by any reduction in water supply. The closest mapped location of this habitat lies 1.5km north of the Proposed Development.	Potential hydrological connection via the Cottbrook Stream and River Dodder during the Construction Phase of the Proposed Development. It is **deemed unlikely** that the Proposed Development would have a significant effect on the conservation attributes/targets for this QI habitat due to the nature and scale of the Proposed Development. Nevertheless, the potential for a water quality impact during the Construction Phase of the

QI / SCI	QI /SCI description	S-P-R connection
		Proposed Development will be addressed with appropriate mitigation measures.

4.3.2 Potential impacts of the Proposed Development on Key Habitats and Species

Table 6 below outlines the attributes and targets associated with the SSCOs for the relevant QIs/SCIs as identified in the preceding section. The potential significant effects of the Proposed Development on these attributes and targets are also assessed. 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.

TABLE 6. ASSESSMENT OF THE POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT ON SITE SPECIFIC CONSERVATION OBJECTIVES. THOSE ATTRIBUTES WHICH ARE AT RISK OF ADVERSE IMPACTS ARE HIGHLIGHTED IN GREEN.

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Wicklow Mountains SAC [002122]			
[4010] Northern Atlantic wet heaths with *Erica tetralix*			
Conservation objective: To restore the favourable condition of Northern Atlantic wet heats with *Erica tetralix* in Wicklow Mountains SAC.			
Habitat area	Area stable or increasing, subject to natural processes.	It is **deemed unlikely** that the Proposed Development would have a significant effect on this habitat as neither the Construction nor Operational Phases of the Proposed Development have the potential to adversely impact the site specific attributes or targets of this conservation objective for this habitat. However, due the proximity of this habitat to the Site, and as a precautionary measure, impacts on Northern Atlantic wet heaths with *Erica tetralix* arising from emissions of dust and airborne pollutants emitted from the Site during the Construction Phase, such as potentially smothering sensitive habitats or plants species, have been considered and appropriate mitigation measures will be put in place. Dust is not considered to be a potential issue during the Operational Phase of the Proposed Development.	**Construction Phase:** Dust mitigation measures are required during the Construction Phase (see section 4.4.2.2). **Operational Phase:** No Operational Phase mitigation required.
Habitat distribution	No decline, subject to natural processes.		
Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range.		
Community diversity	Maintain variety of vegetation communities subject to natural processes.		
Vegetation composition: cross leaved heath	Cross-leaved heath (*Erica tetralix*) present within 20m radius of each monitoring stop.		
Vegetation composition: positive indicator species	Cover of positive indicator species at least 50%.		
Vegetation composition: lichens and bryophytes	Total cover of *Cladonia* and *Sphagnum* species *Racomitrium lanuginosum* and *pleurocarpous* mosses at least 10%.		
Vegetation composition: ericoid species and crowberry	Percentage cover at representative number of 2m x 2m monitoring stops.		
Vegetation composition: dwarf shrub species	Percentage cover at a representative number of 2m x 2m monitoring stops.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Vegetation composition: negative indicator species.	Percentage cover at a representative number of 2m x 2m monitoring stops.		
Vegetation composition: non-native species	Cover of non-native species less than 1%.		
Vegetation composition: native trees and shrubs	Cover of scattered native trees and shrubs less than 20%.		
Vegetation composition: bracken (*Pteridium aquilinum*)	Cover of bracken less than 10%.		
Vegetation composition: soft rush (*Juncus effusus*)	Cover of soft rush less than 10%.		
Vegetation structure: *Sphagnum* condition	Less than 10% of *Sphagnum* cover is crushed, broken or pulled up.		
Vegetation structure: signs of browsing	Less than 33%collectively of the last complete growing season's shoots of ericoids crowberry (*Empetrum nigrum*) and bog-myrtle (*Myrica gale*) showing signs of browsing.		
Vegetation structure: burning	No signs of burning in sensitive areas, into the moss, liverwort of lichen layer or exposure of peat surface due to burning.		
Physical structure: disturbed bare ground	Cover of disturbed bare ground less than 10%.		
Physical structure: drainage	Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scare species associated with the habitat.		
[4030] European dry heaths *Conservation Objective:* To restore the favourable conservation condition of European dry heaths in Wicklow Mountains SAC.			
Habitat area	Area stable or increasing, subject to natural processes.	It is **deemed unlikely** that the Proposed Development would have a significant effect on this habitat as neither the Construction nor Operational Phases of the Proposed Development have the potential to adversely impact the site specific attributes or targets of this conservation objective for this habitat. However, due the proximity of this habitat to the Site, and as a precautionary measure, impacts on European dry heaths arising from emissions of dust and airborne pollutants emitted from the Site during the Construction Phase, such as potentially smothering sensitive habitats or plants species, have been considered and appropriate mitigation measures will be put in place. Dust is not considered to be a potential issue during the Operational Phase of the Proposed Development.	**Construction Phase:** Dust mitigation measures are required during the Construction Phase (see section 4.4.2.2). **Operational Phase:** No Operational Phase mitigation required.
Habitat distribution	No decline or change in habitat distribution, subject to natural processes.		
Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range.		
Community diversity	Maintain variety of vegetation communities subject to natural processes.		
Vegetation composition: lichens and bryophytes	Number of bryophyte or non-crustose lichen species present at each monitoring stop is at least three, excluding *Campylopus* and *Polytrichnum* mosses.		
Vegetation composition: number of positive indicator species	Number of positive indicator species present at each stop is at least two.		
Vegetation composition: cover of positive indicator species	Cover of positive indicator species present at least 50% for siliceous dry heath and 50 – 75% for calcareous dry heath.		
Vegetation composition: dwarf shrub species	Proportion of dwarf shrub cover composed collectively of bog-myrtle (*Myrica gale*), creeping willow (*Salix repens*) and western gorse (*Ulex gallii*) is less than 50%.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Vegetation composition: negative indicator species.	Total cover of negative indicator species less than 1%.		
Vegetation composition: non-native species	Cover of non-native species less than 1%.		
Vegetation composition: native trees and shrubs	Cover of scattered native trees and shrubs less than 20%.		
Vegetation composition: bracken (*Pteridium aquilinum*)	Cover of bracken less than 10%.		
Vegetation composition: soft rush (*Juncus effusus*)	Cover of soft rush less than 10%.		
Vegetation structure: senescent ling	Senescent proportion of ling (*Calluna vulgaris*) cover less than 50%.		
Vegetation structure: signs of browsing	Less than 33%collectively of the last complete growing season's shoots of ericoids crowberry (*Empetrum nigrum*) showing signs of browsing.		
Vegetation structure: burning	No signs of burning in sensitive areas.		
Vegetation structure: growth phases of ling	Outside sensitive areas, all growth phases of ling should occur throughout, with at least 10% of cover in the mature phase.		
Physical structure: disturbed bare ground	Cover of disturbed bare ground less than 10%.		
Indicators of local distinctiveness.	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
[4060] Alpine and Boreal heaths *Conservation Objective:* To restore the favourable conservation of Alpine and Boreal heaths in Wicklow Mountains SAC.			
Habitat area	Area stable or increasing, subject to natural processes.	**It is deemed unlikely** that the Proposed Development would have a significant effect on this habitat as neither the Construction nor Operational Phases of the Proposed Development have the potential to adversely impact the site specific attributes or targets of this conservation objective for this habitat. However, due the proximity of this habitat to the Site, and as a precautionary measure, impacts on Alpine and Boreal heaths arising from emissions of dust and airborne pollutants emitted from the Site during the Construction Phase, such as potentially smothering sensitive habitats or plants species, have been considered and appropriate mitigation measures will be put in place. Dust is not considered to be a potential issue during the Operational Phase of the Proposed Development.	**Construction Phase:** Dust mitigation measures are required during the Construction Phase (see section 4.4.2.2). **Operational Phase:** No Operational Phase mitigation required.
Habitat distribution	No decline, subject to natural processes.		
Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range.		
Community diversity	Maintain variety of vegetation communities subject to natural processes.		
Vegetation composition: lichens and bryophytes	Number of bryophyte or non-crustose lichen species present at each monitoring stop is at least three.		
Vegetation composition: positive indicator species	Cover of positive indicator species at least 66%.		
Vegetation composition: dwarf shrub species	Cover of dwarf shrubs at least 10%.		
Vegetation composition: non-native species	Percentage cover at a representative number of 2m x 2m monitoring stops.		
Vegetation structure: signs of grazing	The percentage of leaves grazed at a representative number of 2m x 2m monitoring stops.		
Vegetation structure: signs of browsing	Less than 33% collectively of the last complete growing season's shoots of ericoids and crowberry showing signs of browsing.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Vegetation structure: burning	No signs of burning within the habitat.		
Physical structure: disturbed bare ground	Cover of disturbed bare ground less than 10%.		
Indicators of local distinctiveness	No decline in distribution or population sizes of rate, threatened or scarce species associated with the habitat.		
[7130] Blanket bogs (* if active) *Conservation Objective:* To restore the favourable conservation of Blanket bogs (*if active) in Wicklow Mountains SAC.			
Habitat area	Area stable or increasing subject to natural processes.	It is **deemed unlikely** that the Proposed Development would have a significant effect on this habitat as neither the Construction nor Operational Phases of the Proposed Development have the potential to adversely impact the site specific attributes or targets of this conservation objective for this habitat. However, due the proximity of this habitat to the Site, and as a precautionary measure, impacts on Blanket bogs arising from emissions of dust and airborne pollutants emitted from the Site during the Construction Phase, such as potentially smothering sensitive habitats or plants species, have been considered and appropriate mitigation measures will be put in place. Dust is not considered to be a potential issue during the Operational Phase of the Proposed Development.	**Construction Phase:** Dust mitigation measures are required during the Construction Phase (see section 4.4.2.2). **Operational Phase:** No Operational Phase mitigation required.
Habitat distribution	No decline, subject to natural processes.		
Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range.		
Ecosystem function: peat formation	At least 99% of the total Annex I blanket bog area is active.		
Ecosystem function: hydrology	Natural hydrology unaffected by drains and erosion.		
Community diversity	Maintain variety of vegetation communities, subject to natural processes.		
Vegetation composition: positive indicator species	Number of positive indicator species present at each monitoring stop is at least 7.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Vegetation composition: lichens and bryophytes	Cover of bryophytes or lichens, excluding *Sphagnum fallax* at least 10%.		
Vegetation composition: potential dominant species	Cover of each of the potential dominant species less than 75%.		
Vegetation composition: negative indicator species	Total cover of negative indicator species less than 1%.		
Vegetation composition: non-native species	Cover of non-native species less than 1%.		
Vegetation cover: native trees and shrubs	Cover of scattered native trees and shrubs less than 10%.		
Vegetation structure: *Sphagnum* condition	Less than 10% of *Sphagnum* cover is crushed, broken and/or pulled.		
Vegetation structure: signs of browsing	Last complete growing season's shoots of ericoids crowberry and boy myrtle showing signs of browsing collectively less than 33%.		
Vegetation structure: signs of burning	No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning.		
Physical structure: disturbed bare ground	Cover of disturbed bare ground less than 10%.		
Physical structure: drainage	Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%.		
Physical structure: erosion	> 5% of the greater bog mosaic comprises erosion gullies and eroded areas.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat		
[1355] Otter (*Lutra lutra*) *Conservation Objective:* To maintain the favourable conservation condition of otter in Wicklow Mountains SAC.			
Distribution	No significant decline.	While it is **deemed unlikely** that the Proposed Development would have a significant effect on the conservation objectives for this species, during the Construction Phase of the Proposed Development, contaminated surface water run-off from the Site into the River Dodder and the Bohernabreena Reservoir could impact otter via water quality deterioration. Otter associated with this SAC may also utilise the River Dodder and Cottbrook Stream along the boundary of the Site. An increase in noise and human presence during the Construction Phase of the Proposed Development may cause disturbance and displacement to local otter and has the potential to disturb commuting and couching sites, if they are present within the vicinity of the Site.	**Construction Phase:** Surface water mitigation measures and preconstruction otter surveys are required during the Construction Phase (see section 4.4.2.1 and section 4.4.2.3). **Operational Phase:** No Operational Phase mitigation required.
Extent of terrestrial habitat	No significant decline. Area mapped and calculated as 716.6ha along riverbanks/ lakes, shoreline/around pools.		
Extent of freshwater (river) habitat	No significant decline (length mapped as 359.1km.		
Extent of freshwater (lake) habitat.	No significant decline (area mapped and calculated as 141.8ha).		
Couching sites and holts	No significant decline.		
Fish biomass available	No significant decline.		
Barriers to connectivity	No significant increase.		
Glenasmole Valley SAC [001209]			
[7220] Petrifying springs with tufa formation (Cratoneurion)* *Conservation objective:* to restore the favourable conservation condition of Petrifying springs with tufa formation (Cratoneurion)* in Glenasmole Valley SAC.			

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Habitat area	Area stable or increasing, subject to natural processes.	While it is **deemed unlikely** that the Proposed Development would have a significant effect on the conservation objectives for this habitat, during the Construction Phase of the Proposed Development, contaminated surface water run-off from the Site into the River Dodder and the Bohernabreena Reservoir could impact this habitat via water quality deterioration.	**Construction Phase:** Surface water mitigation measures are required during the Construction Phase (see section 4.4.2.14.4.2.2). **Operational Phase:** No Operational Phase mitigation required.
Habitat distribution	No decline, subject to natural processes.		
Hydrological regime: height of water table; water flow	Maintain appropriate hydrological regimes.		
Physical structure: tufa formations	Maintain appropriate levels of tufa formation.		
Ecosystem function: water quality – nitrate level	Maintain nitrate level at less than 10mg/l.		
Ecosystem function: water quality – phosphate level	Restore phosphate level to less than 15µg/l.		
Vegetation composition: community diversity	Maintain variety of vegetation communities, subject to natural processes.		
Vegetation composition: positive indicator species	At least three positive/high quality indicator species as listed in Lyons and Kelly (2016) and no loss from baseline number.		
Vegetation composition: negative indicator species	Potentially negative indicator species should not be Dominant or Abundant; potentially negative woody species should be absent in unwooded springs; invasive species should be absent.		
Vegetation composition: algal cover	Cover of algae less than 2%.		

Attribute	Target	Assessment of likely significant effects	Mitigation Requirement
Vegetation structure: sward height	Field layer height between 10cm and 50cm (except for bryophyte-dominated ground.		
Physical structure: trampling/dung	Cover should not be Dominant or Abundant.		
Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat; maintain features of local distinctiveness, subject to natural processes.		

4.3.3 In-combination Effects

4.3.3.1 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), South Dublin County Council Planning Applications online maps. 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.

The larger developments within the vicinity of the Site are listed in Table 7 below:

TABLE 7. 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/0005	South Dublin County Council	Permission	25m S
Development Description Retention of reconstruction of existing cottage; change of window opening sizes to new extension (previously granted under Reg. Ref. SD17B/0413). **Potential for In-combination effects** **No** – Due to the small scale and nature of the works, potential for significant in-combination impacts to European sites can be ruled out.			
SD18A/0455	South Dublin County Council	Permission	400m NE
Development Description 150sq.m single storey extension to the existing community center; kitchen and community space; group space; sanitary facilities and ancillary storage; vehicular site access; on-site wastewater treatment system and all associated site works. **Potential for In-combination effects** **No** - Due to the small scale and nature of the works, potential for significant in-combination impacts to European sites can be ruled out.			

4.3.3.2 Relevant Policies and Plans

The local policies and plans 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 South Dublin County Development Plan), 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.

The South Dublin County Development Plan have also 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. Therefore, no in-combination effects are expected with the relevant policies and plans.

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:

- Water quality impacts in designated sites arising from surface water run-off during the Construction Phase in particular during potential flooding events.
- Dust deposition in designated sites arising from earthworks.
- Disturbance impacts to otter within the Cottbrook stream or downstream waterbodies.

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

- None envisaged.

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

4.4.2.1 Mitigation 1: Construction phase surface water management

- Silt-management measures will be implemented for all groundworks in order to prevent the release of suspended solids into the Cottbrook stream. This will include the use of straw bales and/or silt fences along the entire length of the Cottbrook stream.
- Silt fencing such as Terrastop (https://ssienvironmental.ie/product/silt-fence/) will be installed following good Silt-fencing installation guidance (e.g., https://ssienvironmental.ie/wp-content/uploads/2018/03/Terrastop_Install_02-1.pdf).
- Prior to the commencement of earthworks, silt fences/straw bales will be installed by suitably qualified Site personnel 10m back from the Cottbrook stream.
- The silt fencing/straw bales will be inspected daily based on Site and weather conditions for any signs of contamination or excessive silt deposits and records of these checks will be maintained.

- Where cast-in-place concrete is required, all work will be carried out in the dry and effectively isolated from the Cottbrook stream.
- All plant machinery required on Site will be serviced before being mobilised to Site.
- Refuelling of plant during the Construction Phase will only be carried out at designated refuelling stations located on Site. Each station will be fully equipped for spill response and a specially trained and dedicated Environmental and Emergency Spill Response team will be appointed before the commencement of works on Site. Refuelling stations will be located at a distance greater than 50m from the Cottbrook stream. The plant refuelling procedures will be detailed in the contractor's method statement.
- Spill kits will be made available in each item of plant required on Site.
- Where there is a requirement to collect and treat surface water within the Site during the Construction Phase, run-off from the working Site or any areas of exposed soil will be channelled and intercepted at regular intervals via perimeter swales. The swales will be installed at low points around the construction areas. If required, water will be pumped from the swales into sediment bags with overflows directed to land.
- Any other diesel fuel or hydraulic oils stored on Site will be stored in bunded storage tanks. The bunded area will have a volume of at least 110% of the volume of the stored materials as per best practice guidelines (Enterprise Ireland, BPGCD005).

4.4.2.2 Mitigation 2: Dust management

The following dust control measures will be followed for the duration of the Construction Phase of the Proposed Development and will ensure no significant dust related impacts occur to nearby sensitive receptors (i.e., the QIs of Wicklow Mountains SAC, Glenasmole Valley SAC):

- Haulage vehicles transporting gravel and other similar materials to Site will be covered by a tarpaulin or similar.
- Stockpiling of imported materials will be avoided where possible with imported materials ideally stored on Site in their proposed locations with double handling avoided.
- Stockpiles will be stored in sheltered areas of the Site, covered and watered as needed if exposed during dry windy weather.
- The height of stockpiles will be kept to a minimum and slopes will be gentle to avoid windblown soil dust.

4.4.2.3 Mitigation 3: Protection of otter

The above measures to protect surface and ground waters will also serve to protect the availability of fish prey biomass for otter within the downstream waterbodies. The Cottbrook stream adjacent to the Proposed Development Site was identified as

providing potential *ex-situ* habitat for otter. Given the small scale of the Proposed Development, any potential disturbance to otter from the Construction Phase will be temporary in nature.

4.4.2.3.1 Pre-commencement Survey

To ensure there is no potential disturbance to otter potentially using the Cottbrook stream adjacent to the Site, a preconstruction otter survey of the Cottbrook stream will be undertaken. This survey will be undertaken by a suitably qualified ecologist 8-12 weeks prior to the commencement of works. Should a holt or couch be found prior to commencement or during the proposed works, the following provisions will apply, as per NRA (2006):

- No works will be undertaken within 150m of a holts at which breeding females or cubs are present. Following consultation with the NPWS, works closer to such breeding holts may take place – provided appropriate mitigation measures are in place, e.g., screening and/or restricted working hours on Site.
- No wheeled or tracked vehicles (of any kind) will be used within 20m of an active, but non-breeding holt. Light works such as digging by hand or scrub clearance should also not take place within 15m of such holts, except under licence.
- The prohibited working area associated with otter holts will, where appropriate, be fenced with temporary fencing prior to any possibly invasive works. Appropriate awareness of the purpose of the enclosure will be conveyed through notification to all Site staff and sufficient signage will be placed on each exclusion fence. All contractors or operators on Site will be made fully aware of the procedures pertaining to an affected holt.

4.4.2.3.2 Reduction of noise impacts

The following best practice noise control measures will be implemented at the Site:

- Avoid unnecessary revving of engines and switch off plant items when not required.
- Keep plant machinery and vehicles adequately maintained and serviced.
- Use of alternative reversing alarm system on plant machinery.
- Limiting the hours during which Site activities likely to create high levels of noise are permitted (otter are most active at dawn and dusk).
- Minimise drop heights for materials or ensure a resilient material underlies.

4.5 Monitoring

4.5.1 Construction Phase

During the Construction Phase, the following monitoring will be carried out by the construction contractor to ensure the implemented mitigation measures are maintained effectively:

- Silt fencing / straw bales (Mitigation 1) will be checked by Site personnel daily to ensure they remain effective.
- Dust control measures (Mitigation 2) will be checked on a weekly basis by Site personnel, and more often during dry weather, to ensure they remain effective. The dust control measures will be reviewed if impacts are noted.

4.5.2 Operational Phase

Monitoring during the Operational Phase is not considered to be necessary.

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 Development planning application at Cottbrook, Castlekelly, Bohernabreena, Co. Dublin, on the following European Sites:

- Glenasmole Valley SAC.
- Wicklow Mountains SAC.

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/infill and operation, on the integrity and qualifying interests of the above European site, 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 inspections 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 and Wicklow Mountains SAC. Accordingly, the Proposed Development will not adversely affect the integrity of any relevant European site.

6 REFERENCES

DEHLG. (2010). Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.

DHPLG. (2018). River Basin Management Plan for Ireland 2018-2021. Department of Housing, Planning and Local Government.

Enviroguide (2023) Appropriate Assessment Screening Report for Proposed Development at Cottbrook, Castlekelly, Bohernabreena, Co. Dublin. Prepared for Alida Stewart & John McGrane in [May 2023]

Environmental Protection Agency. (2022). Guidelines on information to be contained in Environmental Impact Assessment Reports. Environmental Protection Agency, Ireland.

EPA, (2023). Environmental Protection Agency Online Mapping [ONLINE] Available at: http://www.epa.ie/ [Accessed May 2023].

European Commission. (2001). Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Communities, Luxembourg.

European Commission, (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC.

European Commission, (2021). 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 Brussels, 28.9.2021 C.

GSI, (2023). Geological Survey Ireland Online Mapping [ONLINE] Available at: http://www.gsi.ie/ [Accessed May 2023]

NRA. (2006). Guidelines for the treatment of otters prior to the construction of national road schemes.

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

NPWS. (2013). Site Synopsis: Glenasmole Valley SAC 001209. Version date 30.08.2013. National Parks and Wildlife Service.

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

NPWS. (2017b). Site Synopsis: Wicklow Mountains SAC 002122. Version date 31.05.2017. National Parks and Wildlife Service.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.

NPWS. (2021). Conservation Objectives: Glenasmole Valley SAC 001209. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

OPR, (2021). OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management'.

WCC (2023). Wicklow County Council online planning applications map, available at: https://www.wicklow.ie/Living/Services/Planning/Planning-Applications/Online-Planning [Accessed May 2023]

Enviroguide
CONSULTING

enviroguide.ie

Head Office
3D, Core C, Block 71, The Plaza, Park West, Dublin 12, D12F9TN, Ireland.
Tel: +353 1 565 4730
Email: info@enviroguide.ie

South West Regional Office
19 Henry Street, Kenmare, County Kerry, V93 CVH0, Ireland.
Tel: +353 646 641932
Email: info@enviroguide.ie

South East Regional Office
M10 Wexford Enterprise Centre, Strandfield Business Park, Rosslare Rd, Strandfield, Kerlogue, Co. Wexford, Y35 W5RD, Ireland.
Tel: +353 1 565 4730
Email: info@enviroguide.ie

Environmental Consultancy Services