Dublin Mountains Visitor Centre

Screening For Appropriate Assessment

JULY 2017

ROD
ROUGHAN & O'DONOVAN

Comhairle Contae
Átha Cliath Theas
South Dublin County Council

Dublin Mountains Visitor Centre

Screening for Appropriate Assessment

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Introduction

Roughan & O'Donovan (ROD) was appointed by South Dublin County Council to undertake Screening for Appropriate Assessment for the proposed Dublin Mountains Visitor Centre, hereafter referred to as "the Project", in order to enable the competent authority, to comply with Article 6(3) of Council Directive 92/43/EEC (the Habitats Directive). During preparation of the Screening report, the statutory consultee, the National Parks & Wildlife Service (NPWS), provided data on designations of sites, habitats and species of conservation interest. Our focus was on potential direct, indirect or cumulative effects on sites of European importance for nature conservation, *i.e*. Natura 2000 sites.

1.2 Requirement for an Assessment under Article 6

According to Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations, 2011-2015, the competent authority has a duty to:

- Determine whether the proposed Project is directly connected to or necessary for the management of one or more Natura 2000 sites; and, if not,
- Determine if the Project, either individually or in combination with other plans or projects, would be likely to have a significant effect on the Natura 2000 site(s) in view of best scientific knowledge and the Conservation Objectives of the site(s).

This report contains a Screening for Appropriate Assessment and is intended to assess and address all issues regarding the construction and operation of the Project and to inform and allow the competent authority to comply with the Habitats Directive. Article 6(3) of the Habitats Directive defines the requirements for assessment of projects and plans for which likely significant effects on Natura 2000 sites may arise.

1.3 Legislative Context

The European Communities (Birds and Natural Habitats) Regulations, 2011-2015 (the Habitats Regulations) transpose into Irish law Directive 2009/147/EC (the Birds Directive) and Council Directive 92/43/EEC (the Habitats Directive) and list habitats and species that are of international importance for conservation and require protection. This protection is afforded in part through the designation of sites that represent significant examples of habitats that support populations of listed species within a European context, known as Natura 2000 sites. Sites designated for bird species are classed as Special Protection Areas (SPAs) and sites designated for other protected species and/or habitats are classed as Special Area of Conservations (SACs). Together, SPAs and SACs comprise the Natura 2000 network of protected sites.

Bird species listed on Annex I of the Birds Directive and habitats and/or species listed on Annexes I and II, respectively, of the Habitats Directive (Qualifying Interests) have full European protection in Natura 2000 sites. Species listed on Annex IV of the Habitats Directive are protected wherever they occur, whether inside or outside the Natura 2000 network. Annex I habitats that occur outside of SACs are still considered to be of national and international importance and, under Regulation 27(4)(b) of the Habitats Regulations, public authorities have a duty to avoid the pollution or deterioration of these habitats.

The Habitats legislation requires competent authorities, to carry out a Screening for Appropriate Assessment of plans and projects that, alone and/or in combination with other plans and projects, would be likely to have significant effects on Natura 2000 sites in view of best scientific knowledge and the sites conservation objectives. This requirement is transposed into Irish law by Part 5 of the Habitats Regulations and Part XAB of the Planning and Development Act, 2000 (as amended). Natura 2000 sites are assigned Conservation Objectives of restoration or maintenance of their "favourable conservation condition" based on the identified Qualifying Interests of the sites. These are described by a set of Attributes with corresponding Targets that must be met if the Conservation Objective for a given Qualifying Interest is to be achieved.

The Project is subject to the requirement to screen for Appropriate Assessment pursuant to Regulation 42(1) of the Habitats Regulations and Part XAB: Section 177U(1) of the Planning and Development Act, 2000 (as amended).

1.4 Stages of an Article 6 Assessment

The European Commission's *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* (EC, 2001) prescribes a staged process, as set out below, the need for each stage being dependent on the outcomes of the preceding stage.

1. Screening for Appropriate Assessment
2. Appropriate Assessment
3. Assessment of Alternative Solutions
4. Assessment where no alternative solutions exist and adverse impacts remain, *i.e*. the Imperative Reasons of Overriding Public Interest test, and compensatory measures.

The Habitats Directive sets out a hierarchy of avoidance, mitigation and compensatory measures. Stage 1 of the process is referred to as Screening for Appropriate Assessment and identifies whether the Project, either on its own or in combination with other plans of projects, would be "likely to have a significant effect" upon any European site, *i.e*. any Natura 2000 site, in view of best scientific knowledge and the site's Conservation Objectives Screening is undertaken without the inclusion of mitigation, except where it is intrinsic to the design of the plan or project, as established in Case Law, *e.g*. Rossmore *v*. An Bord Pleanála. If effects are considered likely to be significant, potentially significant or uncertain, or if the Screening process becomes overly complicated, the process must proceed to Stage 2: Appropriate Assessment, with the preparation of a Natura Impact Statement to inform the Appropriate Assessment that is to be conducted by the competent authority.

Stage 2 includes detailed impact prediction and assessment of the likely effects on the Natura 2000 sites(s) in question and the proposal of specific mitigation measures, where necessary. If adverse effects on the integrity of a European Site cannot be ruled out, then the process continues to Stage 3 and assesses whether alternative solutions exist. If no alternatives exist and impacts on Natura 2000 sites are unavoidable, then a proposed plan or project can only be implemented where there are imperative reasons of overriding public interest, as detailed in Article 6(4) of the Habitats Directive.

1.5 Classification and Conservation Objectives

This Appropriate Assessment Screening report has been prepared in accordance with current guidance (DEHLG, 2010) and provides the information required to establish whether or not the Project, either on its own or in combination with other plans and projects, would be likely to have any significant effect(s) on Natura 2000 sites in view of best scientific knowledge and in the context of sites' Conservation Objectives and includes the following details:

Description of the Project

- Location of the Project and distances from Qualifying Interests of Natura 2000 sites, including a map of the Project in relation to Natura 2000 boundaries;
- The size, scale, area of the Project in relation to Natura 2000 sites and projected level of activity, class of activity and frequency; and,
- Details of construction works including duration, materials and physical changes as detailed for the Project and any possible impacts that the proposed construction may have on the defining structure and function of the Natura 2000 sites.

Potential Impacts on Natura 2000 sites with respect to Conservation Objectives

- The impact of the proposed construction/operation on the defining structure and function of the Natura 2000.

Section 3.2.3 of DEHLG (2010) states that the specific approach to Screening for Appropriate Assessment, *i.e*. determining which Natura 2000 sites to include for assessment, depends on the nature, size and location of the project and the sensitivities of the ecological receptors, as well as the potential for in combination effects, while cognisant of the Precautionary Principle[1].

1.6 Sources of Guidance

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Official Journal of the European Communities, *L206/7*;
- DEHLG (2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, Dublin;
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive). Official Journal of the European Union, *L20/7*;
- European Communities (Birds and Natural Habitats) Regulations 2011. *SI No. 477/2011*;
- NPWS (2010) *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular Letter NPWS 1/10 & PSSP 2/10. Department of Environment, Heritage and Local Government, Dublin;
- NPWS (2013) *The Status of EU Protected Habitats and Species in Ireland. Volume 2 & 3: Article 17 Assessments*. Department of Arts, Heritage and Gaeltacht, Dublin;
- EC (2000) *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission;
- EC (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*. Environment Directorate-General of the European Commission;
- Part XAB of the Planning and Development Act, 2000 (as amended).

[1] The precautionary principle, derived from the EU Treaty and developed in the case law of the ECJ, is one of the foundations of the high level of protection pursued by EU Community policy on the environment, and underpins the Habitats Directive. In effect it means that where doubt exists about the risk of a significant effect, an Appropriate Assessment must be carried out.

2.0 DESCRIPTION OF THE PROJECT

2.1 Background

The 2015 South Dublin Tourism Strategy proposed, as its principal recommendation, the creation of a Dublin Mountains Flagship Project. This was in keeping with the 2007 report, Dublin Mountains Strategic Development Plan for Outdoor Recreation, which introduced the proposal to provide a flagship welcoming and orientation point in the Dublin Mountains, for which it estimated an indicative cost of €4 million. The Dublin Mountains Partnership (DMP) also has a key objective to develop a flagship facility that will act as a focal tourism attraction in the area.

In response, a Steering Group consisting of representatives of South Dublin County Council, Coillte and the DMP issued tender invitations for a multi-disciplinary approach to the preparation of a feasibility study and masterplan for a flagship tourism facility in the Dublin Mountains.

2.2 Location

The proposed Dublin Mountains Visitor Centre will be located at the northern gateway into the Dublin and Wicklow Mountains from Dublin City. In broad terms, the site location is in the valley of the largest tributary of the River Dodder, the Owendoher River, to the south of Rathfarnham. There are several blocks of state-owned land (Coillte Teo. conifer plantations) in and around this valley and the proposal focuses on the development of the tourism facility in the area of Hell Fire Woods on Montpellier Hill and Massy's Woods, which already provide extensive public access and walking routes linking into the higher mountains above 300 m altitude.

2.3 General Layout

The Project will comprise the following elements:

- Conservation works to protected structures including the Hell Fire Club building;
- Visitors Centre and Events Building located downhill on eastern side of Montpelier Hill;
- Tree canopy bridge linking Hell Fire Woods and Massy's Woods;
- Redevelopment of walled garden (Massy's Garden) in Massy's Woods;
- Conversion of commercial conifer forest to permanent mixed woodland and development of parkland amenity areas within this woodland
- Landscape development including boundary treatment;
- Facilities for drainage, water provision, foul water treatment, electricity and gas provision;
- Upgrading of existing trails and forestry access routes where necessary; and
- Extension to existing car park to accommodate approximately 300 additional spaces. Parking surfaces could be of a range of materials from loose gravel to reinforced grass to blacktop, depending on design objectives.

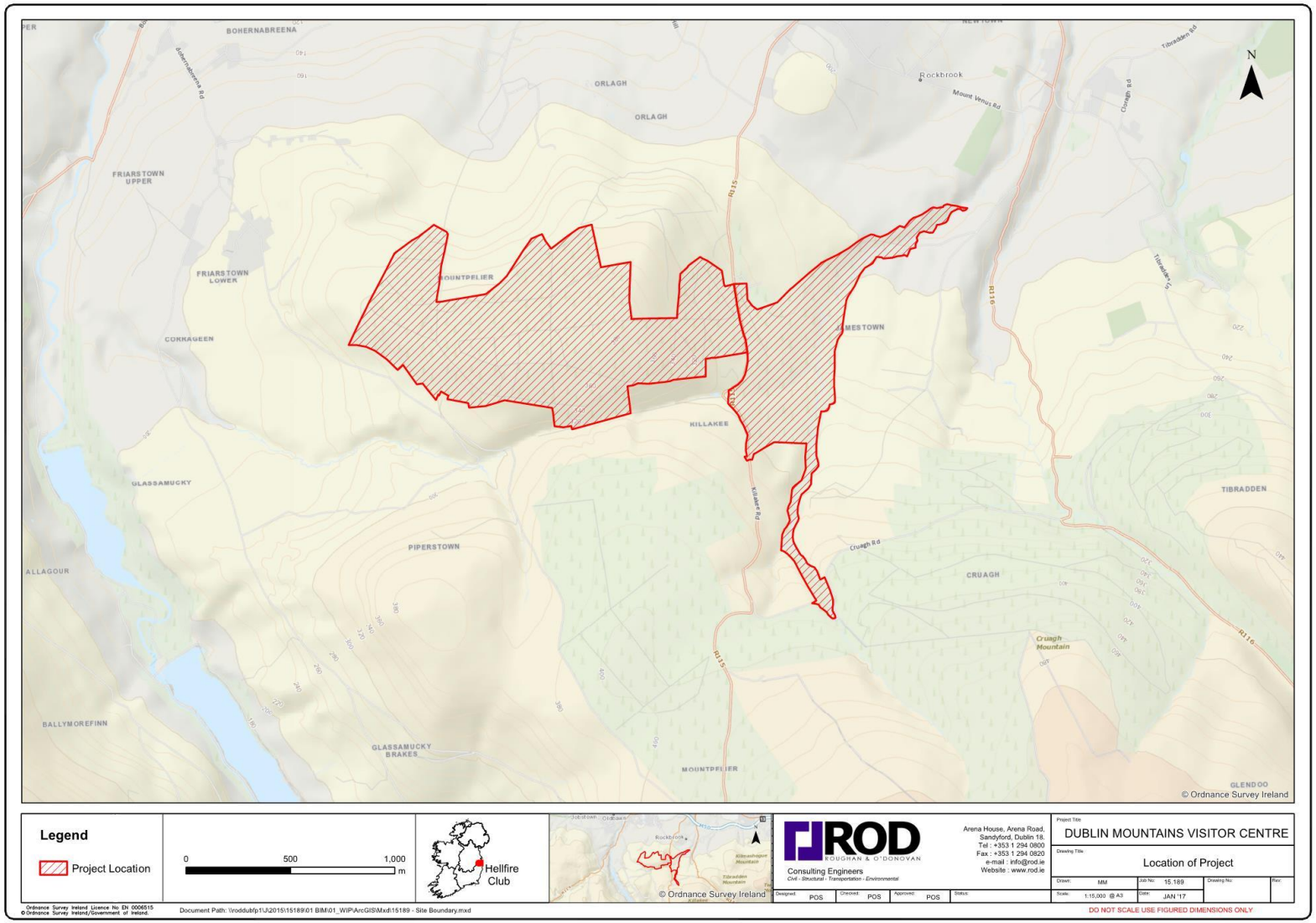

Figure 1. Location of the Project.

2.4 Ecological Assessment

In order to examine baseline ecological conditions and determine the presence and proximity of any Special Conservation Interests or Qualifying Interests of Natura 2000 sites in relation to the Project, data relating to the ecology of the Project area and protected sites potentially affected by the Project were obtained from statutory and non-statutory consultees, as well as by a desk study and by field surveys.

The desk study was undertaken in November 2016 and included reviews of reporting commissioned under Article 17 of the Habitats Directive (NPWS, 2013a-b), Site Synopses, Standard Data Forms and Conservation Objectives for Natura 2000 sites, in particular the Glenasmole Valley SAC, Wicklow Mountains SAC, Wicklow Mountains SPA and the National Biodiversity Data Centre (NBDC) online database (NBDC, 2016). Records of rare and protected species within the study area were obtained from the NPWS. The results of the desk study were used to inform the design of the field surveys.

Field surveys were conducted by suitably qualified ecologists from ROD on 29th November 2016 and 13th February 2017. These surveys included multidisciplinary walkover surveys, habitat/botanical surveys and protected species surveys. The multidisciplinary surveys were designed to record evidence of Red Squirrel, Badger and other protected mammals. Habitats present were classified in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000) and mapped following *Best Practice Guidance for Habitat Survey and Mapping* (Smith *et al*., 2011).

Consultation, desk study and field surveys identified three Natura 2000 sites, namely Glenasmole Valley Sac, Wicklow Mountains SAC and Wicklow Mountains SPA and a number of the Qualifying Interests of these sites as being of particular interest in relation to the Screening for Appropriate Assessment.

The information gathered during the consultation, desk study and field surveys was used to inform the Screening for Appropriate Assessment process, in particular, in the identification of pathways of risk between the Project and the Qualifying Interests of the SAC and assessment of the likely significant effects of the Project in view of the Conservation Objectives of the SAC.

3.0 NATURA 2000 SITES

3.1 Natura 2000 Sites Likely to be Affected

Section 3.2.3 of the *Guidance for Planning Authorities* (DEHLG, 2010) outlines the procedure for selecting the Natura 2000 sites to be subject to Screening. It states that Natura 2000 sites potentially affected should be identified and listed, bearing in mind the potential for direct, indirect and/or cumulative effects. It also states that the specific approach to Screening in each case is likely to differ depending on the scale and likely effects of the plan or project. However, it advises that the following sites should generally be included:

- All Natura 2000 sites within or immediately adjacent to the plan or project area;
- All Natura 2000 sites within the likely zone of impact of the plan or project; and,
- In accordance with the Precautionary Principle, all Natura 2000 sites for which there is doubt as to whether or not they might be significantly affected.

The "likely zone of impact" of a plan or project is the geographic extent over which significant ecological effects are likely to occur. In the case of plans, DEHLG (2010) recommends that this zone extend to a distance of 15 km in all directions from the boundary of plan area. In the case of projects, however, the guidance recognises that the likely zone of impact must be established on a case-by-case basis, with reference to the following key variables:

- The nature, size and location of the project;
- The sensitivities of the ecological receptors; and,
- The potential for cumulative effects.

For example, in the case of a project that could affect a watercourse, it may be necessary to include the entire upstream and/or downstream catchment in order to capture all Natura 2000 sites with water-dependent Special Conservation Interests or Qualifying Interests.

Following the guidance provided in DEHLG (2010) and taking into account the key variables outlined above, the likely zone of impact for the Project was defined as the area within:

- A 5km buffer around the Project boundary.

ArcView software was used in conjunction with publicly available Ordnance Survey Ireland maps and NPWS shapefiles to identify the boundaries of Natura 2000 sites in relation to the likely zone of impact (Table 1; Figure 2).

It was determined that three Natura 2000 sites, namely the Glenasmole Valley SAC. the Wicklow Mountains SAC and the Wicklow Mountains SPA, occur within the likely zone of impact.

Table 1. Natura 2000 sites within the likely zone of impact of the Project.

Natura 2000 site	Site description	Closest proximity
Glenasmole Valley SAC [001209] Site area: 149.3 ha	Glenasmole Valley lies at the northern foothills of the Dublin and Wicklow Mountains. The River Dodder flows through the valley and within the site the river has been impounded to form two reservoirs. Associated with the reservoirs are areas of swamp and marsh vegetation. The valley is heavily wooded, mostly with mixed woodland of both deciduous and coniferous species but also some native woodland. Dry calcareous pasture grassland, improved to varying degrees, is a main habitat of the valley sides and occurs in association with wet grassland and, in places of seepage, fen or marsh type vegetation.	The Project is located 1.2 km north-east of the SAC boundary

Natura 2000 site	Site description	Closest proximity
Wicklow Mountains SAC [002122] Site area: 32945.7 ha	The Wicklow Mountains SAC is an upland complex consisting of heath, blanket bog, upland grassland, dense bracken and woodlands mainly along rivers. Most of the site is above 300m with large areas above 600 m. Localised alpine habitats exist near mountain summits. The site is designated for eleven Annex I habitats and one Annex II and IV species.	The Project is located 0.6 km north of the SAC boundary
Wicklow Mountains SPA [004040] Site area: 30027.3 ha	The Wicklow Mountains SPA is an upland complex consisting of a large part of the Wicklow Mountains. The SPA is designated for two Annex I species, Merlin and Peregrine, both of which occur at the Site in nationally important numbers.	The Project is located 0.9 km north of the SPA boundary

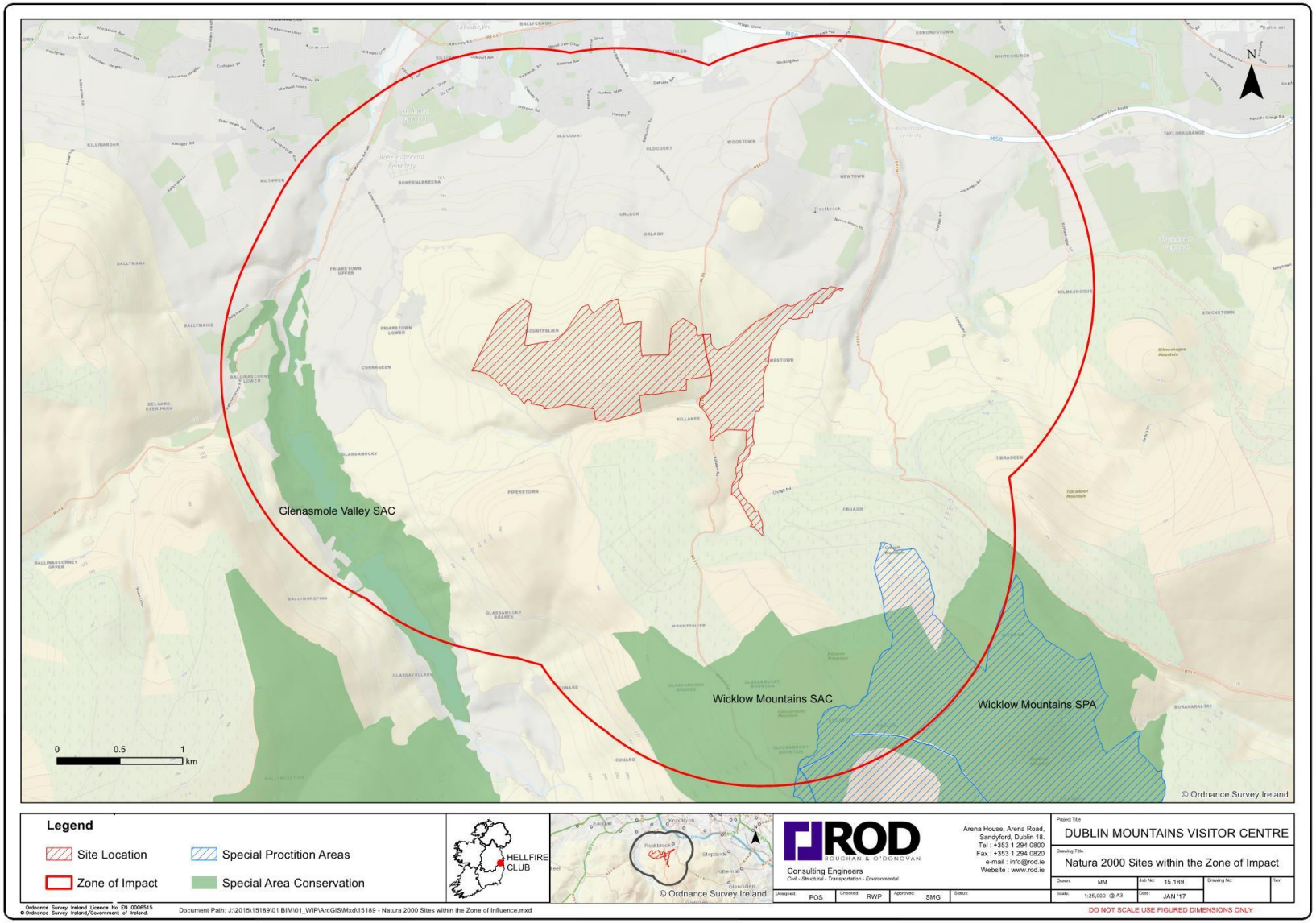

Figure 2. Location of Natura 2000 sites in relation to the likely zone of impact.

3.2 Risk to Qualifying Interests

In Ecological and Environmental Impact Assessment, for an impact to occur there must be a risk enabled by having a "source", *e.g*. construction works at a proposed development site, a "receptor", *e.g*. an SAC or other ecologically sensitive feature, and a pathway between the source and the receptor, *e.g*. a watercourse connecting the proposed development site to the SAC. The risk of the impact does not automatically mean that it will occur or that it will be significant. However, identification of the risk does mean that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

In the case of the construction and operation of the Dublin Mountains Visitor Centre, sources of risk are considered to include the loss and/or fragmentation of habitats, noise, vibration, lighting, pollution and mobilisation of sediment. Pathways that may convey these risks to ecological receptors include physical proximity, air, water and ecological interactions. The ecological receptors relevant to the Screening for Appropriate Assessment are the Qualifying Interests of the Glenasmole Valley SAC, the Wicklow Mountains SAC and the Wicklow Mountains SPA. The Screening Matrix (Table 2) below identifies the Qualifying Interests that are connected, either directly or indirectly, by a pathway of risk to a source of risk at the Project.

3.3 Effects on Conservation Objectives

As explained in Section 1.3, each Special Scientific Interest and Qualifying Interest in each Natura 2000 site is assigned a Conservation Objective of either restoration or maintenance of its "favourable conservation condition", as described by a set of Attributes with corresponding Targets that must be met if the specific Conservation Objective for that Special Scientific Interest or Qualifying Interest is to be achieved. The restoration and maintenance of the favourable conservation condition of habitats and species within Natura 2000 sites contributes to the overall conservation status of those habitats and species at a national level. Favourable conservation condition is described in more generic terms below.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

Site-specific Conservation Objectives for the Glenasmole Valley SAC, the Wicklow Mountains SAC and the Wicklow Mountains SPA have been published by the NPWS and are listed and detailed in full in Appendix A. The potential for likely significant effects on the Qualifying Interests of the Glenasmole Valley SAC, the Wicklow Mountains SAC and the Wicklow Mountains SPA is assessed in view of the relevant Conservation Objectives in the Screening Matrix (Table 2,3 and 4) below. Where potential pathways of risk between the Project and the Qualifying Interest are identified, the likely effects on the relevant Conservation Objectives are assessed with regard to their respective Attributes and Targets

As set out in Article 6(3) of the Habitats Directive and as per the 2011 Regulations, a likely effect of any plan or project on any Natura 2000 site is deemed to be significant if, in view of best scientific knowledge, it would, either individually or in combination with other plans or projects, compromise and/or delay the achievement of one or more of the Conservation Objectives of that site.

Table 2. Screening Matrix for the Glenasmole Valley SAC. Source: NPWS (2013-a) , unless specifically referenced. An * denotes a "priority" habitat or species in danger of disappearing. Numbers in square brackets are Natura 2000 codes.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210]	Potentially 1.2 km from the Project at the Glenasmole Valley SAC	This habitat comprises species-rich plant communities found on shallow, well-drained calcareous substrates. It is considered a priority habitat only if it is an important orchid site. The Annex I habitat includes a mixture of grasses and herbs, with calcicole species typically frequent. It usually occurs on obvious geological features such as eskers, outcropping limestone rock and in association with limestone pavement. The Burren and Aran Islands (Clare/Galway) and Dartry Mountains (Sligo/Leitrim) are particularly important areas within the State for this Annex I habitat. The 6210 habitat is comprised of a diverse group of plant communities belonging to the *Bromion-erecti*, including the *Carex flacca – Succisa pratensis* community. 37 SACs are designated for Semi-natural dry grasslands in the Member State. It is estimated that a total of 958 ha of 6210 occurs within the Natura 2000 network. This habitat forms 20% (29.86 ha) of the Glenasmole Valley SAC, equivalent to *c*. 3% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but "stable". The main pressures acting on this habitat are succession to scrub and problematic native species (e.g. bracken).	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) in the Glenasmole Valley SAC (NPWS, 2016-a) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) in All Saints Bog and Esker SAC [000566] which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2016-b)	Habitat area	Area stable or increasing, subject to natural processes and at least 1.81ha	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) in the Glenasmole Valley SAC
					Habitat distribution	No decline, subject to natural processes	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) in the Glenasmole Valley SAC
					Vegetation composition: typical species	At least seven positive indicator species present, including two "high quality" species	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation distribution: negative indicator species	Negative indicator species collectively not more than 20% cover, with cover by an individual species not more than 10%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation composition: non-native species	Cover of non-native species not more than 1%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia)*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: woody species and bracken (*Pteridium aquilinum*)	Cover of woody species (except certain listed species) and bracken (*Pteridium aquilinum*) not more than 5% cover	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation structure: broadleaf herb: grass ratio	Broadleaf herb component of vegetation between 40 and 90%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation structure: sward height	At least 30% of sward between 5cm and 40cm tall	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation structure: litter	Litter cover not more than 25%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Physical structure: bare soil	Not more than 10% bare soil	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) in the Glenasmole Valley SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Physical structure: disturbance	Area showing signs of serious grazing or other disturbance less than 20m²	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) in the Glenasmole Valley SAC
***Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]**	Potentially 1.2 km from the Project at the Glenasmole Valley SAC	This habitat is represented in Ireland by both fen and grassland communities on nutrient poor soils. The 6410 habitat is either managed as traditional hay meadows (cut only once a year in late summer or autumn with the hay crop removed) or more usually by extensive pasture. Within Ireland Molinia meadows occur in lowland plains on neutral to calcareous gleys, sometimes with a Marl layer beneath the surface, or on peaty soils both in lowland and upland situations. Molinia meadows generally have a central to north-western distribution in Ireland that follows the distribution of Cirsium dissectum, one of the key indicator species for the habitat. The Annex I habitat is very rare in the east of the country with only one site recorded within the five eastern counties that border the Irish Sea. 17 SACs are designated for Molinia meadows in the Member State. It is estimated that a total of 197 ha of 6410 occurs within the Natura 2000 network. This habitat forms *c.* 5% (7.46 ha) of the Glenasmole Valley SAC, equivalent to *c.* 3.7% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad and "declining". The main pressures acting on this habitat are succession, abandonment of pastoral systems, lack of grazing, an abandonment/lack of mowing and water abstractions from groundwater	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in the Glenasmole Valley SAC (NPWS, 2016-a) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in Boleybrack Mountain SAC [002032], which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2016-c)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in the Glenasmole Valley SAC
					Habitat distribution	No decline, subject to natural processes	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in the Glenasmole Valley SAC
					Vegetation composition: typical species	At least seven positive indicator species present, including two "high quality" species as listed in O'Neill et al. (2013)	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation distribution: negative indicator species	Negative indicator species collectively not more than 20% cover, with cover by an individual species not more than 10%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation composition: non-native species	Cover of non-native species not more than 1%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: moss species	Hair mosses (*Polytrichum* spp.) not more than 25% cover	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation composition: woody species and bracken (*Pteridium aquilinum*)	Cover of woody species and bracken (Pteridium aquilinum) not more than 5% cover	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation structure: broadleaf herb: grass ratio	Broadleaf herb component of vegetation between 40% and 90%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation structure: sward height	At least 30% of sward between 10 and 80cm tall	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation structure: litter	Litter cover not more than 25%	No Likely Significant Effect – Given the nature of the project and the distance between the Project and *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Physical structure: bare ground	Not more than 10% bare ground	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in the Glenasmole Valley SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Physical structure: bare soil	Not more than 10% bare soil	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in the Glenasmole Valley SAC
					Physical structure: disturbance	Area showing signs of serious grazing or other disturbance less than 20m²	No Likely Significant Effect – Given that there is no land take, the Project will not compromise the maintenance of the favourable conservation condition of this *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) in the Glenasmole Valley SAC
Petrifying springs with tufa formation (*Cratoneurion*) [7220]	Potentially 1.2 km from the Project at the Glenasmole Valley SAC	Petrifying Springs with Tufa Formation (Cratoneurion) have been defined as springs and seepages where tufa is actively deposited and where characteristic species of bryophytes are dominant or abundant. Characteristic bryophyte species are Palustriella commutata, P. falcata, Eucladium verticillatum, Pellia endiviifolia, Cratoneuron filicinum, Bryum pseudotriquetrum and Didymodon tophaceus. Characteristic vascular plants are Festuca rubra, Carex panicea and Equisetum telmateia. 20 SACs are designated for Petrifying springs in the Member State. It is estimated a total of 11.4 ha of 7220 occurs within the Natura 2000 network. This habitat forms *c.* 0.99% (.49ha) of the Glenasmole Valley SAC, equivalent to *c.* 13% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Inadequate and "stable". The main pressures acting on this habitat are landfill, land reclamation and drying out.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Petrifying springs with tufa formation (*Cratoneurion*) in the Glenasmole Valley SAC (NPWS, 2016-a) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Petrifying springs with tufa formation (*Cratoneurion*) in Arroo Mountain SAC [001403] which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2016-d)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Petrifying springs with tufa formation (*Cratoneurion*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Habitat distribution	No decline from current distribution.	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Petrifying springs with tufa formation (*Cratoneurion*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Hydrological regime: height of water table; water flow	Maintain appropriate hydrological regimes	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Petrifying springs with tufa formation (*Cratoneurion*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Water quality	Maintain oligotrophic and calcareous conditions	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Petrifying springs with tufa formation (*Cratoneurion*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC
					Vegetation composition: typical species	Maintain typical species	No Likely Significant Effect – Given the nature of the project and the distance between the Project and Petrifying springs with tufa formation (*Cratoneurion*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Glenasmole Valley SAC

Table 3. Screening Matrix for the Wicklow Mountains SAC. Source: NPWS (2013a-b), unless specifically referenced. An * denotes a "priority" habitat or species in danger of disappearing. Numbers in square brackets are Natura 2000 codes.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	This habitat type occurs in soft water, nutrient poor lakes frequently associated with acid bedrock (notably granite and old red sandstone) overlain by peatland. The habitat is best developed on more gently sloping lake beds, over variable substrata, and along sheltered shorelines. It is dominated by species with an isoetid growth form, namely *Isoetes lacustris*, *Isoetes echinospora*, *Littorella uniflora*, *Lobelia dortmanna* and *Eriocaulon aquaticum*. *Juncus bulbosus*, *Myriophyllum alterniflorum*, *Potamogeton polygonifolius* and *Sparganium angustifolium* also frequently occur, as does *Deschampsia setacea* in Connemara. Ireland is a stronghold for the habitat, given the large number of lakes in which it occurs and its widespread distribution. Even in Ireland, however, this habitat is under pressure from eutrophication, peatland drainage and, to a lesser extent, acidification. 29 SACs are designated for this habitat in the Member State. It is estimated that a total of 7,010 ha of this habitat occurs within the Natura 2000 network. This habitat forms *c.* 0.77% (254.5 ha) of the Wicklow Mountains SAC, equivalent to *c*. 3.63% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad and "declining".	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective conservation condition of Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) in Mount Brandon SAC [000375] which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2016-f)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Typical species	Typical species present, in good condition, and demonstrating typical abundances and distribution	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: characteristic zonation	All characteristic zones should be present, correctly distributed and in good condition	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation distribution: maximum depth	Maintain maximum depth of vegetation, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Hydrological regime: water level fluctuations	Maintain appropriate natural hydrological regime necessary to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Lake substratum quality	Maintain appropriate substratum type, extent and chemistry to support the vegetation	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: transparency	Maintain appropriate Secchi transparency; no decline in Secchi depth/transparency	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: nutrients	Maintain the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: phytoplankton biomass	Maintain appropriate water quality to support the habitat, including high chlorophyll *a* status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: phytoplankton composition	Maintain appropriate water quality to support the habitat, including high phytoplankton composition status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Water quality: attached algal biomass	Maintain trace/absent attached algal biomass (< 5% cover) and high phytobenthos status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: macrophyte status	Maintain high macrophyte status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Acidification status	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water colour	Maintain appropriate water colour to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Dissolved organic carbon (DOC)	Maintain appropriate organic carbon levels to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Turbidity	Maintain appropriate turbidity to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Fringing habitat: area	Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3110	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Natural dystrophic lakes and ponds [3160]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Dystrophic lakes and ponds are mainly associated with areas of Atlantic and upland blanket bog, and wet heath. As for other ombrotrophic bog habitats, the habitat is species poor botanically, but has relatively greater invertebrate species richness. Low species richness is, however, not synonymous with low conservation value, as many of the species are strongly associated with and sometimes restricted to the dystrophic habitat. Dystrophic lakes and ponds are variable across their Irish range, with altitude, geology, and distance from the sea the most likely drivers of the variation (van Groenendael *et al*., 1979, Drinan, 2012). While individual sites are typically species poor, among-site variation means that the habitat displays higher species richness at landscape and regional scales. Furthermore, the invertebrate fauna is characterised by some rare and threatened species, such as the endangered downy emerald dragonfly. In terms of macroinvertebrate species richness, dystrophic lakes and ponds are dominated by Coleoptera (water beetles), followed by Trichoptera (caddisfly larvae) and Heteroptera (aquatic bugs, such as water boatmen). 10 SACs are designated for this habitat in the Member State. It is estimated that a total of 1042ha of this habitat occurs within the Natura 2000 network. This habitat forms *c.* 1% (329.46ha) of the Wicklow Mountains SAC, equivalent to *c*. 32% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be inadequate declining. Pressures acting on this habitat include water quality impacts from peatland drainage and conifer forest.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Natural dystrophic lakes and ponds in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective conservation condition of Natural dystrophic lakes and ponds containing very few minerals of sandy plains (*Littorelletalia uniflorae*) in Cuilcagh - Anierin Uplands SAC [000584] which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2016-g)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Typical species	Typical species present, in good condition, and demonstrating typical abundances and distribution	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: characteristic zonation	All characteristic zones should be present, correctly distributed and in good condition	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation distribution: maximum depth	Maintain maximum depth of vegetation, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Hydrological regime: water level fluctuations	Maintain appropriate natural hydrological regime necessary to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Lake substratum quality	Maintain appropriate substratum type, extent and chemistry to support the vegetation	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: transparency	Maintain appropriate Secchi transparency; no decline in Secchi depth/transparency	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: nutrients	Maintain the concentration of nutrients in the water column at sufficiently low levels to support the habitat and its typical species	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: phytoplankton biomass	Maintain appropriate water quality to support the habitat, including high chlorophyll *a* status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: phytoplankton composition	Maintain appropriate water quality to support the habitat, including high phytoplankton composition status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Water quality: attached algal biomass	Maintain trace/absent attached algal biomass (< 5% cover) and high phytobenthos status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water quality: macrophyte status	Maintain high macrophyte status	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Acidification status	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Water colour	Maintain appropriate water colour to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Dissolved organic carbon (DOC)	Maintain appropriate organic carbon levels to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Turbidity	Maintain appropriate turbidity to support the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Fringing habitat: area	Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3160	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Natural dystrophic lakes and ponds, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Northern Atlantic wet heaths with *Erica tetralix* [4010]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	This habitat is a highly variable habitat that is intermediate in many regards between dry heath and blanket bog, generally occurring on gently sloping, poorly-draining ground on shallow or intermediate peat depths (typically less than 50 cm deep). It is dominated by a mixture of *Molinia caerulea, Erica tetralix, Trichophorum germanicum or Calluna vulgaris,* although not all of these species need to be present. Dwarf shrubs may be scarce or absent in degraded examples of wet heath characterised by dominance of *Trichophorum germanicum* or *Molinia caerulea*. 39 SACs are designated for this habitat in the Member State. It is estimated that a total of 77151ha of this habitat occurs within the Natura 2000 network. This habitat forms *c.* 25% (8236.43ha) of the Wicklow Mountains SAC, equivalent to *c.* 14% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad. Pressures acting on this habitat include overgrazing and trampling, afforestation and development of wind farms.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Northern Atlantic wet heaths with *Erica tetralix* in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Northern Atlantic wet heaths with *Erica tetralix* in the Cuilcagh - Anierin Uplands SAC [000584], which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-g)	Habitat area	Increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Community diversity	Maintain variety of vegetation communities, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: Cross-leaved Heath	Cross-leaved heath (*Erica tetralix*) present near each monitoring stop	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: positive indicator species	Cover of positive indicator species ≥ 50%	No Likely Significant Effect - Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: lichens and bryophytes	Total cover of *Cladonia* and *Sphagnum* species, *Racomitrium lanuginosum* and pleurocarpous mosses ≥10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: ericoid species and Crowberry	Cover of ericoid species and Crowberry (*Empetrum nigrum*) ≥15%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: dwarf shrub species	Cover of dwarf shrubs < 75%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator species	Total cover of negative indicator species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: non native species	Cover of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: native trees and shrubs	Cover of scattered native trees and shrubs < 20%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: Bracken	Cover of bracken (*Pteridium aquilinum*) < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: soft rush	Cover of soft rush (*Juncus effusus*) < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: *Sphagnum* condition	< 10% of the *Sphagnum* cover is crushed, broken and/or pulled up	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: signs of browsing	< 33% collectively of the last complete growing season's shoots of ericoids, Crowberry (*Empetrum nigrum*) and Bog-myrtle (*Myrica gale*) showing signs of browsing	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: burning	No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Physical structure: disturbed bare ground	Cover of disturbed bare ground < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: drainage	Area showing signs of drainage from heavy trampling, tracking or ditches < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Northern Atlantic wet heaths with *Erica tetralix*, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
European dry heaths [4030]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Dry heaths comprise vegetation dominated by ericaceous dwarf shrubs and usually occur on well-drained, nutrient-poor and acidic mineral soils or shallow peats on sloping ground (typically less than 50 cm deep). *Calluna vulgaris* is usually the main species but *Erica cinerea*, *Ulex gallii* and *Vaccinium myrtillus* may also be important components. Dry heaths occur from sea level up to around 400 m. 48 SACs are designated for Dry heaths in the Member State. It is estimated that a total of 63,074 ha of Dry heaths occurs within the Natura 2000 network. This habitat forms *c*. 15% (4,941.86 ha) of the Wicklow Mountains SAC, equivalent to *c*. 7.8% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but "stable". Pressures acting on this habitat include burning and sheep grazing.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of European dry heaths in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for European dry heaths in the Gweedore Bay and Islands SAC [001141], which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2015-a)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline from current habitat distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrient status	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: positive indicator species	At least two positive indicator species, as listed in Perrin *et al*. (2014), with combined cover of ≥ 50%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: bryophyte and non-crustose lichen species	At least three bryophyte or non crustose lichen species present, excluding *Campylopus* and *Polytrichum* moss species	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: rare/scarce species	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: dwarf shrub species	Cover of Bog-myrtle (*Myrica gale*), Creeping Willow (*Salix repens*) and Western Gorse (*Ulex gallii*) collectively < 50%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator weed species	Cover of negative indicator weedy species collectively < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: non native species	Cover of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: native trees and shrubs	Cover of scattered native trees and shrubs < 20%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: Bracken	Cover of Bracken (*Pteridium aquilinum*) < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: Soft Rush	Cover of Soft Rush (*Juncus effusus*) < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: senescent Ling	Senescent proportion of Ling (*Calluna vulgaris*) cover < 50%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: growth phases of Ling	Outside boundaries of sensitive areas, all growth phases of Ling (*Calluna vulgaris*) should occur throughout, with ≥10% of cover in mature phase	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: signs of browsing	Last complete growing season's shoots of ericoids showing signs of browsing collectively < 33%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: burning	No signs of burning within sensitive areas	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: disturbed bare ground	Cover of disturbed bare ground < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and European dry heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Alpine and Boreal heaths [4060]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Alpine and Boreal heath consists of two distinct communities in Ireland: i) The upland community occurs on the exposed summits and upper slopes of mountains on acidic substrate. It typically occurs from around 350-400 m upwards, but can occur at lower altitudes in more exposed locations. The vegetation is characterised by low-growing, wind-clipped dwarf shrubs, with *Calluna vulgaris* typically the most frequent, and by the abundance of *Racomitrium lanuginosum*. The definition of this	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Alpine and Boreal heaths in the Wicklow Mountains SAC (NPWS, 2016-e)	Habitat area	Area stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
		habitat has been revised since the 2000-2006 reporting period in that whilst the presence of arctic-alpine species indicates high quality examples of this community, it is not deemed a requisite. ii) The lowland community comprises *Dryas* heath on limestone in the Burren. The vegetation is characterised by mats of Dryas octopetala accompanied by species typical of calcareous grassland. 33 SACs are designated for Dry heaths in the Member State. It is estimated that a total of 13,561 ha of the habitat occurs within the Natura 2000 network. This habitat forms *c*. 1% (329.46 ha) of the Wicklow Mountains SAC, equivalent to *c*. 3% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad. Pressures acting on this habitat include overgrazing, pasture abandonment and encroachment of scrub and acidification.		Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Alpine and Boreal heaths in the Mount Brandon SAC [000375], which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-f)	Habitat distribution	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Community diversity	Maintain variety of vegetation communities, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: lichens and bryophytes	Number of bryophyte or non-crustose lichen species present at each monitoring stop is at least three	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: positive indicator species	Cover of positive indicator ≥ 66%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: dwarf shrub species	Cover of dwarf-shrub species ≥ 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator species	Total cover of negative indicator species < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: non native species	Cover of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: signs of grazing	< 10% collectively of the live leaves of specific graminoids showing signs of grazing	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: signs of browsing	< 33% collectively of the last complete growing season's shoots of ericoids and Crowberry (*Empetrum nigrum*) showing signs of browsing	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: burning	No signs of burning within the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: disturbed bare ground	Cover of disturbed bare ground < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat and no decline in status of hepatic mats associated with this habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Alpine and Boreal heaths, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Calaminarian grasslands of the *Violetalia calaminariae* [6130]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Mine workings and their artificial spoil heaps can support specialised plants and vegetation communities that are tolerant to high levels of toxic metals, principally Copper, Lead or Zinc. Some stands of such vegetation in Ireland are notable for the presence of rare bryophytes such as *Cephaloziella integerrima*, *C. massalongi*, *C. nicholsonii*, *Ditrichum cornubicum*, *Scopelophila cataractae* and *Pohlia andalusica*, amongst others, as well as inland stands of the vascular plants *Silene uniflora* and lowland *Armeria maritima*, and some stands of *Minuartia verna*.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Calaminarian grasslands of the *Violetalia calaminariae* in the Wicklow Mountains SAC (NPWS, 2016-e)	Habitat area	No decline, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calaminarian grasslands of the *Violetalia calaminariae* , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
		Vegetation of mine waste with rare bryophytes is ascribable to the habitat Calaminarian grasslands of the *Violetalia calaminariae*. Community development on new toxic sludge is not considered to represent the Annex I habitat. 5 SACs are designated for Calaminarian grasslands in the Member State. It is estimated that a total of 7.794 ha of 6130 occurs within the Natura 2000 network. This habitat forms *c.* 0.01% (4.3 ha) of the Wicklow Mountains SAC, equivalent to *c.* 55% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Inadequate and "declining". Pressures acting on this habitat include disposal of household/recreational facility waste, competition (flora), trampling and overuse, motorised vehicles and abandonment of pastoral systems/lack of grazing.		Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Calaminarian grasslands of the *Violetalia calaminariae* in the Kenmare River SAC [002158], which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2013-c)	Distribution	No decline, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calaminarian grasslands of the *Violetalia calaminariae* , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: bare ground	Maintain adequate open ground	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calaminarian grasslands of the *Violetalia calaminariae* , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Soil toxicity: copper content	Maintain high copper levels in soil	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calaminarian grasslands of the *Violetalia calaminariae* , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: height and cover	Maintain low and open cover	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calaminarian grasslands of the *Violetalia calaminariae* , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: metallophyte bryophytes	Maintain diversity and populations of metallophyte bryophytes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calaminarian grasslands of the *Violetalia calaminariae* , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	The Annex I habitat 6230 is restricted to siliceous substrates in upland areas (montane and submontane zone). 6230 has probably always been a rare habitat within Irish uplands and it relies on extensive grazing, usually sheep, to maintain the habitat over almost all of its range. When 6230 grassland is identified it can often occur in a mosaic with heath. Mineral flushing is usually required to create a habitat that supports a more species-rich community that conforms to the Annex I habitat as described in the interpretation manual of EU habitats (European Commission 2007). Both a calcareous (calcareous flushing) and	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas in the Wicklow Mountains SAC (NPWS, 2016-e)	Habitat area	Area stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Continental Europe) [6230]		non-calcareous sub-community of 6230 have been identified in Ireland. 9 SACs are designated for *Nardus* grasslands in the Member State. It is estimated that a total of 219 ha of the habitat occurs within the Natura 2000 network. This habitat forms *c.* 1% (329.46 ha) of the Wicklow Mountains SAC, however this figure does not conform to the Article 17 report and it is likely the area described in the Nature 2000 form is indicative of 1% of the area of the SAC. The overall conservation status of this habitat is considered to be Bad. Pressures acting on this habitat include problematic native species (*e.g.* Bracken) and succession to scrub.		Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas in the Cuilcagh - Anierin Uplands SAC [000584], which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-g)	Habitat distribution	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Community diversity	Maintain variety of vegetation communities, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: positive indicator species	≥ 7 positive indicator species present at each monitoring stop	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: high quality indicator species	≥ 2 high quality species for base-rich examples of the habitat and ≥ 1 for base-poor examples of the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: species richness	Species richness at each monitoring stop ≥ 25	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: non-native species	Cover of non-native species ≤ 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator species	Cover of negative indicator species individually ≤ 10% and collectively ≤ 20%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: *Sphagnum* cover	Cover of *Sphagnum* species ≤ 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: *Polytrichum* cover	Cover of Polytrichum species ≤ 25%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: scrub, Bracken and heath cover	Cover of scrub, bracken (Pteridium aquilinum) and heath collectively ≤ 5%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: forb to graminoid ratio	Forb component of forb:graminoid ratio is 20-90%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation structure: sward height	Proportion of the sward between 5 cm and 50 cm tall is ≥ 25%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: litter cover	Cover of litter ≤ 20%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: disturbed bare ground	Cover of disturbed bare ground ≤ 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: grazing or disturbance	Area of the habitat showing signs of serious grazing or disturbance < 20 m^2	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Blanket bogs (* if active bog) [7130]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Vegetation types of upland and lowland blanket bog conforming to Annex I habitat 7130 have been summarised by Fossitt (2000) while Perrin *et al*. (2013a.) describe several communities from the work to date of the National Survey of Uplands Habitats though it should be noted that the principal lowland blanket bog SACs have not yet been assessed. In Ireland they may be broadly divided into upland and lowland communities. The peat is typically more than 50 cm deep and often 1-2 m deep in the uplands or up to 7 m deep in the lowlands. Blanket bogs	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Blanket bogs (* if active bog) in the Wicklow Mountains SAC (NPWS, 2016e)	Habitat area	Area increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
		generally occur on level ground or gentle slopes although upland blanket bog can occasionally occur on steeper ground up to 40 degrees in the wettest districts. Active bog contains a significant area of vegetation that is normally peat-forming. For blanket bog this includes not only *Sphagnum* spp. and other bryophyte species but also *Eriophorum* spp. and some of the other vascular plant species. Conversely, inactive blanket bog should be defined as areas of blanket peat lacking a significant area of peat-forming species although there are no specific guidelines in this regard. Due to the difficulties in differentiating between active and inactive blanket bog and because, with the exception of the NSUH, none of the data sources used have distinguished between these types, the assessment presented within this document is jointly made for both active and inactive blanket bog. 50 SACs are designated for Dry heaths in the Member State. It is estimated that a total of 144,829 ha of the habitat occurs within the Natura 2000 network. This habitat forms *c*. 25% (8236 ha) of the Wicklow Mountains SAC, equivalent to *c*. 6% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad. The primary pressure on this habitat is overgrazing or past overgrazing with current grazing levels impeding recovery.		Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Blanket bogs (* if active bog) in the Cuilcagh - Anierin Uplands SAC [000584], which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-g)	Area increasing, subject to natural processes	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: peat formation	≥ 99% of the total Annex I blanket bog area is active	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: hydrology	Natural hydrology unaffected by drains and erosion	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Community diversity	Maintain variety of vegetation communities, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: positive indicator species	≥ 7 positive indicator species at each monitoring stop	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: lichens and bryophytes	Cover of bryophytes or lichens, excluding *Sphagnum fallax*, ≥ 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: potential dominant species	Cover of each of the potential dominant species < 75%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator species	Total cover of negative indicator species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: non-native species	Cover of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: native trees and scrub	Cover of scattered native trees and shrubs < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: *Sphagnum* condition	< 10% of the *Sphagnum* cover is crushed, broken and/or pulled up	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation structure: signs of browsing	Last complete growing season's shoots of ericoids, Crowberry (*Empetrum nigrum*) and Bog-myrtle (*Myrica gale*) showing signs of browsing collectively < 33%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: burning	No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: disturbed bare ground	Cover of disturbed bare ground < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: drainage	Area showing signs of drainage from heavy trampling, tracking or ditches < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: erosion	< 5% of the greater bog mosaic comprises erosion gullies and eroded areas	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Blanket bogs (* if active bog) , the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Siliceous scree consists of accumulations of siliceous rock fragments on slopes below upland cliffs or on exposed / frost-shattered mountain summits or ridges. Rocks may vary in size from large blocks (also known as talus) that can be very stable down to smaller fragments that can be highly mobile. Areas of loose rock on summits or plateaux exposed by erosion of high altitude blanket bog and areas akin to fell-field are not included. Whilst there is no strict altitudinal threshold, this habitat is limited to examples of scree occurring in an upland landscape context. The vegetation may be very sparse and can comprise chiefly of bryophyte and lichen assemblages, but calcifuge ferns (e.g. *Dryopteris dilatata*, *Hymenophyllum wilsonii* or *Saxifraga spathularis* are typically present. 3 SACs are designated for the habitat in the Member State. It is estimated that a total of 1890 ha of the habitat occurs within the Natura 2000 network. This habitat forms *c*. 1% (329.46 ha) of the Wicklow Mountains SAC, however this figure does not conform to the Article 17 report and it is likely the area described in the Nature 2000 form is indicative of 1% of the area of the SAC. The overall conservation status of this habitat is considered to be Inadequate. The primary pressure on this habitat is sheep grazing although is it of medium importance due to the inaccessibility of many areas containing the habitat.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) in the Mount Brandon SAC [000375], which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-f)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: lichens and bryophytes	Cover of bryophytes and non-crustose lichen species ≥ 5%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator species	Proportion of vegetation composed of negative indicator species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: non-native species	Proportion of vegetation composed of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: positive indicator species	Number of positive indicator species present in vicinity of each monitoring stop in block scree is ≥ 1	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: grass species and dwarf shrubs	Total cover of grass species and dwarf shrubs < 20%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: bracken, native trees and scrub	Total cover of bracken (Pteridium aquilinum), native trees and scrub < 25%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: grazing and browsing	Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively < 50%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Physical structure: disturbance	Ground disturbed by human and animal paths, scree running, vehicles < 10%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat and no decline in status of hepatic mats associated with this habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*), the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Calcareous rocky slopes with chasmophytic vegetation [8210]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	The habitat consists of vertical or near vertical exposures of calcareous bedrock with cracks, fissures and overhangs that support chasmophytic vegetation. In may also occur on wet siliceous cliffs where there is some base-enrichment from the water or where the siliceous rock has been metamorphosed. Chasmophytic vegetation is characterised by calcicole ferns (e.g. *Asplenium viride, Cystopteris fragilis*), saxifrages (*Saxifraga oppositifolia, Saxifraga aizoides*) and saxicolous bryophytes (*e.g. Tortella tortuosa, Orthothecium rufescens*) which are present due to the specific habitat conditions provided by the rock face and fissures. Areas of heath, grassland or tall herb communities growing on the rock face or on ledges are not included. The definition of this habitat has been revised since the 2000-2006 reporting period (NPWS 2007) in that whilst the presence of arctic-alpine species indicates high quality examples of this community, it is not deemed a requisite. 12 SACs are designated for the habitat in the Member State. It is estimated that a total of 243ha of the habitat occurs within the Natura 2000 network. This habitat forms *c.* 1% (329.46 ha) of the Wicklow Mountains SAC, however this figure does not conform to the Article 17 report and it is likely the area described in the Nature 2000 form is indicative of 1% of the area of the SAC. The overall conservation status of this habitat is considered to be Inadequate. The primary pressure on this habitat is sheep grazing.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Calcareous rocky slopes with chasmophytic vegetation in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Conservation Objective for Calcareous rocky slopes with chasmophytic vegetation in Arroo Mountain SAC [001403] which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-d)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: positive indicator fern and *Saxifraga* species	Number of ferns and *Saxifraga* indicators at each monitoring stop ≥ 1	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: positive indicator species	≥ 3 positive indicator species at each monitoring stop	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: non-native species	Proportion of vegetation composed of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: Bracken, native trees and scrub	Total cover of Bracken (*Pteridium aquilinum*), native trees and scrub < 25%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: grazing and browsing	Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively < 50%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Calcareous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Siliceous rocky slopes with chasmophytic vegetation [8220]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Siliceous rocky slopes consist of vertical or near vertical exposures of siliceous bedrock with cracks, fissures and overhangs that support chasmophytic vegetation. Chasmophytic vegetation is characterised by calcifuge ferns (*e.g. Dryopteris dilatata, Hymenophyllum wilsonii*), saxifrages (*Saxifraga spathularis*) and saxicolous bryophytes (*e.g. Andreaea* spp., *Racomitrium heterostichum*) which are present due to the specific habitat conditions provided by the rock face and fissures. Areas of heath, grassland or tall herb communities growing on the rock face or on ledges are not included. 15 SACs are designated for the habitat in the Member State. It is estimated that a total of 1613ha of the habitat occurs within the Natura 2000 network. This habitat forms *c*. 1% (329.46 ha) of the Wicklow Mountains SAC, however this figure does not conform to the Article 17 report and it is likely the area described in the Nature 2000 form is indicative of 1% of the area of the SAC. The overall conservation status of this habitat is considered to be Inadequate. The primary pressure on this habitat and increased use of the uplands for recreational activities.	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Siliceous rocky slopes with chasmophytic vegetation in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Siliceous rocky slopes with chasmophytic vegetation in the Caha Mountains SAC [000093] which is to restore the favourable conservation condition of this Qualifying Interest (NPWS, 2016-h)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Habitat distribution	No decline from current distribution, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Ecosystem function: soil nutrients	Maintain soil nutrient status within natural range	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Vegetation composition: positive indicator species	≥ 1 positive indicator species present in vicinity of each monitoring stop	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: non-native species	Proportion of vegetation composed of non-native species < 1%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: Bracken, native trees and scrub	Total cover of Bracken (*Pteridium aquilinum*), native trees and scrub < 25%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation structure: grazing and browsing	Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively < 50%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Indicators of local distinctiveness	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat and no decline in status of hepatic mats associated with this habitat	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Siliceous rocky slopes with chasmophytic vegetation, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	Potentially 0.6 km from the Project at the Wicklow Mountains SAC	Old sessile oak woods are defined in the interpretation manual of EU habitats as "acidophilous *Quercus petraea* woods, with low, low-branched, trees, with many ferns, mosses, lichens and evergreen bushes". Three indicative species are listed: *Quercus petraea*, *Ilex aquifolium* and *Blechnum* ssp. (*sic*). A wider interpretation that also includes woods with *Q.* × *rosacea* and *Q. robur* may also be used. 40 SACs are designated for Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles in the Member State. It is estimated that a total of 3,899 ha of 91A0 occurs within the Natura 2000 network. This habitat forms *c.*	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles in the Wicklow Mountains SAC (NPWS, 2016-e)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
		1.0% (329.46 ha) of the Wicklow Mountains SAC, equivalent to *c.* 8.5% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad and "improving".		Attributes and Targets (right) for this Qualifying Interest have been taken from those of the Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles in the the River Moy SAC [002298] which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2016-i)	Habitat distribution	No decline	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Woodland size	Area stable or increasing; where topographically possible, "large"; woods ≥ 25 ha and "small" woods ≥ 3ha	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Woodland structure: cover and height	Diverse structure with a relatively closed canopy containing mature trees; subcanopy layer with semi-mature trees and shrubs; well-developed herb layer	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Woodland structure: community diversity and extent	Maintain diversity and extent of community types	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Woodland structure: natural regeneration	Seedlings, saplings and pole age-classes occur in adequate proportions to ensure survival of woodland canopy	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Woodland structure: dead wood	≥ 30 m^3/ha of fallen timber > 10 cm diameter; 30 snags/ha; both categories should include stems > 40 cm diameter	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
					Woodland structure: veteran trees	No decline	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Woodland structure: indicators of local distinctiveness	No decline	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: native tree cover	No decline. Native tree cover ≥ 95%	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: typical species	A variety of typical native species present, depending on woodland type, including Oak (*Quercus petraea*) and Birch (*Betula pubescens*)	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
					Vegetation composition: negative indicator species	Negative indicator species, particularly non-native invasive species, absent or under control	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, the Project will not compromise the maintenance of the favourable conservation condition of this Qualifying Interest in the Wicklow Mountains SAC
European Otter *Lutra lutra* [1355]	Potentially within the Project along the Glendoo Brook	The Otter is a large carnivore with a long, slim body, short legs with webbed feet and a tapered tail. Adult males can reach 1 m in length and 10 kg in weight. Dramatic declines occurred in many European populations during the latter half of the 20th Century. As a result, Otter became extinct in several countries. However, Ireland has remained a strong-hold for the species. Otter are protected under Annex II and IV of the Habitats Directive and under the Wildlife Act, 1976. The species is listed in the Irish Red Data Book as Near Threatened and has a Regulation 39 Threat Response Plan drawn up to protect its population, NPWS (2009). 45 SACs are designated for this species in the Member State, estimated to support 468–660 of	**Yes - Given the proximity of the Site to this QI, potential pathways of risk are considered to exist between the Project and the QI.**	To maintain or restore the favourable conservation condition of European Otter *Lutra lutra* in the Wicklow Mountains SAC (NPWS, 2016-e) Attributes and Targets	Distribution	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.
					Extent of terrestrial habitat	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.

Qualifying Interest	Closest proximity	Extent and character	Risk to this Qualifying Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
		the country's 7,218–10,186 breeding females. The most recent estimate of population size within the Wicklow Mountains SAC is not determined but is considered to be less than 2% of the national population. The SAC is nonetheless considered to be of "good value" for the conservation of Otter. The overall conservation status of the species is considered Favourable, with road mortalities constituting the major pressure at present.		(right) for this Qualifying Interest have been taken from those of the conservation condition of European Otter *Lutra lutra* in the British Isles in the the West of Ardara/Maas Road SAC [000197] which is to maintain the favourable conservation condition of this Qualifying Interest (NPWS, 2015-c)	Extent of marine habitat	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.
					Extent of freshwater (river) habitat	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.
					Extent of freshwater (lake/lagoon) habitat	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.
					Couching sites and holts	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.
					Fish biomass available	No significant decline	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.
					Barriers to connectivity	No significant increase	No Likely Significant Effect – Given the nature of the Project, the maintenance of the favourable conservation condition of Otter in the Wicklow Mountains SAC will not be compromised.

Table 4. Screening Matrix for the Wicklow Mountains SPA. Source: NPWS (2013), unless specifically referenced. Numbers in square brackets are Natura 2000 codes.

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
Merlin *Falco columbarius* [A098]	Potentially 0.9 km from the Project at the Wicklow Mountains SPA	Merlin is found across the northern hemisphere moving further south as far as north Africa in Winter. The species generally breeds on the ground in felled woodland and heaths and will also use old corvid and raptor nests. Current national population estimates are 200-400 pairs. 7 SPAs are designated for this species in the Member State. The population size in the Wicklow Mountains SPA is *c*. 5- 10 pairs.	**Yes - Given the proximity of the Site to this SCI, potential pathways of risk are considered to exist between the Project and the SCI.**	To maintain or restore the favourable conservation condition of Merlin *Falco columbarius* in the Wicklow Mountains SPA (NPWS, 2016-j) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the conservation condition of Merlin *Falco columbarius* in the British Isles in the the Migneint-Arenig-Dduallt SPA	Population size	Stable or increasing	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Merlin *Falco columbarius*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Nesting distribution within the site	Maintained or expanded so that breeding occurs in all appropriate habitats	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Merlin *Falco columbarius*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
				[UK9013131]] which is to maintain the favourable conservation condition of this Qualifying Interest (CCW, 2008)	Breeding success	≥ 1 young fledged per nest annually	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Merlin *Falco columbarius*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Availability of nesting and roosting habitat	Sufficient tall heather, individual trees often with crows' nests and forestry edge habitat to support the population long-term	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Merlin *Falco columbarius*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Availability of hunting habitat	Mosaic of grassland, bogs, flushes, short heath and Bracken with low trees/scrub present	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Merlin *Falco columbarius*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Availability of prey species	Adequate supply of small birds and large insects to maintain successful breeding	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Merlin *Falco columbarius*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
Peregrine *Falco peregrinus* [A103]	Potentially 0.9 km from the Project at the Wicklow Mountains SPA	Peregrine is found throughout the world apart from the extreme polar regions and New Zealand. The species generally breeds on coastal and mountain cliffs. The species is currently recovering from dramatic historical declines. Current national population estimates are 590 pairs. 10 SPAs are designated for this species in the Member State. The population size in the Wicklow Mountains SPA is 10 pairs.	**Yes - Given the proximity of the Site to this SCI, potential pathways of risk are considered to exist between the Project and the SCI.**	To maintain or restore the favourable conservation condition of Peregrine *Falco peregrinus* in the Wicklow Mountains SPA (NPWS, 2016-j) Attributes and Targets (right) for this Qualifying Interest have been taken from those of the conservation condition of Peregrine *Falco peregrinus* in the British Isles in the the Migneint-Arenig-Dduallt	Population size	At least 10 breeding pairs, preferably increasing	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and Peregrine *Falco peregrinus*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Nesting distribution within the site	Maintained or expanded so that breeding occurs in all appropriate nest sites	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and of Peregrine *Falco peregrinus*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC

Special Conservation Interest	Closest proximity	Extent and character	Risk to this Special Conservation Interest	Conservation Objective	Attribute	Target	Likely Significant Effect
				SPA [UK9013131]] which is to maintain the favourable conservation condition of this Qualifying Interest (CCW, 2008)	Breeding success	≥ 1 young fledged per nest annually	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and of Peregrine *Falco peregrinus*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Availability of nesting and roosting habitat	Sufficient cliffs and crags with ledges suitable for nesting to support the population long-term	No Likely Significant Effect – Given the nature of the Project and the distance between the Project and of Peregrine *Falco peregrinus*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Availability of hunting habitat		No Likely Significant Effect – Given the nature of the Project and the distance between the Project and of Peregrine *Falco peregrinus*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC
					Availability of prey species		No Likely Significant Effect – Given the nature of the Project and the distance between the Project and of Peregrine *Falco peregrinus*, the Project will not compromise the maintenance of the favourable conservation condition of this Special Conservation Interest in the Wicklow Mountains SAC

4.0 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

4.1 Assessment Criteria

The assessment questions listed below have been sourced from EC (2001):

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site:

Given the distance between the Project and Natura 2000 Sites no element of the Project is likely to result in any significant impact on the Glenasmole Valley SAC, the Wicklow Mountains SAC or the Wicklow Mountain SPA.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site:

No direct, indirect or secondary impacts on the Glenasmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountain SPA or any other Natura 2000 site are likely to arise from the Inspection/Investigation, either alone or in combination with other plans or projects.

Describe any likely significant changes to the site:

There are unlikely to arise any significant changes to the Glenasmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountain SPA or any other Natura 2000 site as a result of the Project.

Describe any likely impacts on the Natura 2000 site as a whole:

No element of the proposed Project will cause direct or indirect permanent damage to the size or characteristics of the Glenasmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountain SPA or cause any changes to the ecological structure or function of the site.

Provide indicators of significance as a result of the identification of the effects above:

Taking into consideration the Project's distance from any Annex I habitats for which the SAC is designated, significant effects on these habitats are unlikely.

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known:

No element of the construction or operational phases of the proposed Project has potential to affect the Conservation Objectives of any Natura 2000 site. The assessment demonstrates that there is confidence that no direct, indirect or cumulative impacts of construction works will result on any Natura 2000 site. Closest proximities of all Special Conservation Interests / Qualifying Interests in relation to the likely zone of impact have been identified and any source-pathway-receptor chain evaluated, therefore no gaps exist in regard to baseline data with the Natura 2000 Sites.

4.2 Consideration of Potential Cumulative Impacts

A key requirement of the Habitats Directive is to determine whether the project is likely to have a significant effect on a European site when considered in combination with other plans and projects. The main driver for addressing plans in combination is to ensure that cumulative effects are captured. For example, the effects of a plan on water quality may be insignificant when considered alone, but when combined with the effects of increased pollution from other plans, may lead to significant adverse impacts on site integrity. To that end, the "in-combination test" is about addressing "cumulative effects".

Determining which plans and projects to consider requires a pragmatic approach that takes into account the nature and scale of development, proximity to Natura 2000 sites and the potential pathways of risk. Current best practice and available guidance suggests a staged approach, as follows:

- if it can be clearly demonstrated that the plan will not result in any effects at all that are relevant to European site integrity, then the plan should proceed without considering the in-combination test requirement in the Screening further; or,
- if there are identified effects arising from the plan, even if they are perceived as minor and not likely to have a significant effect on the European site alone, then these effects must be considered in combination with the effects arising from other plans and projects.

Elements of the plan that have individually been screened out as having no effect at all on any European site, *i.e*. Natura 2000 site, or because those elements are too general in nature do not require an in-combination assessment since, clearly, they will either have no cumulative effects or cumulative effects cannot be identified.

In the case of proposed Dublin Mountains Visitor Centre, the Project does not provide for any changes to habitats supporting species listed as Qualifying Interests of the Glenasmole Valley SAC and the Wicklow Mountains SAC or species listed as Special Conservation Interests of the Wicklow Mountains SPA. Therefore, an in-combination test relating to these species and their habitats will not be required for the Project.

5.0 CONCLUDING STATEMENTS

5.1 Screening Conclusion

On the basis of the Screening assessment and in applying the Precautionary Principle, indicators of significance show that there is no potential for short-term or long-term interference with the Glenasmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountains SPA or any other Natura 2000 site. It has been concluded that no potentially significant or uncertain effects on Qualifying Interests or Special Conservation Interests and their respective Conservation Objectives are likely to arise from the Project.

The Screening has determined that an Appropriate Assessment of the Project is not required as it can be excluded, on the basis of objective information, that the Project will not have a significant effect on the Glenasmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountains SPA or any other Natura 2000 site.

The rationale for such a determination has regard to the structure and function of features of interest at Natura 2000 sites, notably in this case that:

- No areas of habitat important for the survival of the Qualifying Interests within the Glenasmole Valley SAC and the Wicklow Mountains SAC or Special Conservation Interests within the Wicklow Mountains SPA or any other Natura 2000 site will be modified, fragmented, destroyed or isolated; and,
- No potentially meaningful proportion of the Qualifying Interests within the Glenasmole Valley SAC and the Wicklow Mountains SAC or Special Conservation Interests within the Wicklow Mountains SPA or any other Natura 2000 site may be impacted through loss, damage or deterioration in habitat quality.

It can be objectively concluded that there are not likely to be significant effects on the Glenasmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountains SPA or any other Natura 2000 site arising from the proposed Dublin Mountains Visitor Centre. Therefore, Stage 2: Appropriate Assessment will not be required to inform the Project either alone or in combination with other plans or projects, with respect to any Natura 2000 site and its Conservation Objectives.

6.0 REFERENCES

CCW (2008) *Core Management Plan including Conservation Objectives for the Migneint-Arenig-Dduallt SAC/SPA [UK9013131]*. Countryside Council for Wales, Bangor.

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Official Journal of the European Communities, *L206/7*.

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the Birds Directive). Official Journal of the European Union, *L20/7*.

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

EC (2000) *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. Directorate-General for the Environment, European Commission.

EC (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*. Directorate-General for the Environment, European Commission.

European Communities (Birds and Natural Habitats) Regulations, 2011. *SI No. 477/2011.*

European Communities (Birds and Natural Habitats) (Amendment) Regulations, 2013. *SI No. 499/2013.*

European Communities (Birds and Natural Habitats) (Amendment) Regulations, 2015. *SI No. 355/2015.*

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

NBDC (2016) *Biodiversity Maps* <http://maps.biodiversityireland.ie> [Accessed 15/11/2016]. National Biodiversity Data Centre, Waterford.

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

NPWS (2013-a) *The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 3. Version 1.0*. Unpublished Report, National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2013-b) *The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments Volume 2. Version 1.1*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2013-c) *Conservation Objectives for the Kenmare River SAC [002158]. Version 1*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2015a) *Conservation Objectives for the Gweedore Bay and Islands SAC [001141]. Version 1*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2015-b) *Conservation Objectives for the West of Ardara/Maas Road SAC [000197]. Version 1*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2015-c) Conservation Objectives: West of Ardara/Maas Road SAC 000197. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

NPWS (2016-a) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2016-b) Conservation Objectives: All Saints Bog and Esker SAC 000566. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2016-c) Conservation Objectives: Boleybrack Mountain SAC 002032. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2016-d) Conservation Objectives: Arroo Mountain SAC 001403. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

NPWS (2016-e) *Conservation Objectives for the Wicklow Mountains SAC [002122]. Generic Version 5.0*. National Parks & Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin.

NPWS (2016-f) *Conservation Objectives for the Mount Brandon SAC [000375]. Version 1*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2016-g) *Conservation Objectives for the Cuilcagh - Anierin Uplands SAC [000584]. Version 1*. National Parks & Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin.

NPWS (2016-h) *Conservation Objectives for the Caha Mountains SAC [000093]. Version 1*. National Parks & Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin.

NPWS (2016-i) Conservation Objectives: River Moy SAC 002298. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2016-j) *Conservation Objectives for the Wicklow Mountains SPA [004040]. Generic Version 5.0*. National Parks & Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin.

Planning and Development Act, 2000. *No. 30 of 2000*.

Planning and Development (Amendment) Act, 2002. *No. 32 of 2002*.

Planning and Development (Strategic Infrastructure) Act, 2006. *No. 27 of 2006*.

Planning and Development (Amendment) Act, 2010. *No. 30 of 2010*.

Rossmore Properties Ltd *v*. An Board Pleanála [2014] IEHC 557.

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

APPENDIX A
NPWS Site Synopsis & Conservation Objectives

Conservation objectives for Glenasmole Valley SAC [001209]

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	**Description**
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (* important orchid sites)*
6410	*Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)
7220	Petrifying springs with tufa formation (Cratoneurion)*

* denotes a priority habitat

Citation: *NPWS (2016) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*

Conservation objectives for Wicklow Mountains SAC [002122]

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)
3160	Natural dystrophic lakes and ponds
4010	Northern Atlantic wet heaths with *Erica tetralix*
4030	European dry heaths
4060	Alpine and Boreal heaths
6130	Calaminarian grasslands of the Violetalia calaminariae
6230	Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*
7130	Blanket bogs (* if active bog)
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)

8210 Calcareous rocky slopes with chasmophytic vegetation
8220 Siliceous rocky slopes with chasmophytic vegetation
91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
* denotes a priority habitat

Code	Common Name	Scientific Name
1355	Otter	*Lutra lutra*

Citation: *NPWS (2016) Conservation objectives for Wicklow Mountains SAC [002122]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*

Conservation objectives for Wicklow Mountains SPA [004040]

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	**Common Name**	**Scientific Name**
A098	Merlin	*Falco columbarius*
A103	Peregrine	*Falco peregrinus*

Citation: *NPWS (2016) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*

SITE SYNOPSIS

Site Name: Glenasmole Valley SAC

Site Code: 001209

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

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[6210] Orchid-rich Calcareous Grassland*
[6410] *Molinia* Meadows
[7220] 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. Within the hazel woods, and associated with the springs and flushes, a distinctive flora with Marsh Hawk's-beard (*Crepis paludosa*) and luxuriant stands of Great Horsetail (*Equisetum telmateia*) has developed.

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, Green-winged Orchid (*Orchis morio*) and Small-white Orchid (*Pseudorchis albida*). Common grasses in the sward include Sweet Vernal-grass (*Anthoxanthum odoratum*), Creeping Bent (*Agrostis stolonifera*) and Crested Dog's-tail (*Cynosurus cristatus*). Other species which occur are Common Bird's-foot-trefoil (*Lotus corniculatus*), Kidney Vetch (*Anthyllis vulneraria*), Common Restharrow (*Ononis repens*), Yellow-wort (*Blackstonia*

perfoliata) and Autumn Gentian (*Gentianella amarella*). While much of the calcareous grassland has been improved to some extent for agriculture, a suite of typical species still remain.

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

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

Wet semi-natural broadleaved woodland is also found around the reservoirs and includes Alder (*Alnus glutinosa*) and willow (*Salix* spp.), with Yellow Iris (*Iris pseudacorus*), horsetails (*Equisetum* spp.), Bramble and localised patches of Japanese Knotweed (*Reynoutria japonica*), an introduced and invasive species.

The lake shore vegetation is not well developed, which is typical of a reservoir. There are occasional patches of Reed Canary-grass (*Phalaris arundinacea*) and Purple-loosestrife (*Lythrum salicaria*), which are more extensive around the western shore of the northern lake, along with Common Marsh-bedstraw (*Galium palustre*) and Water Mint (*Mentha aquatica*). Other vegetation includes Shoreweed (*Littorella uniflora*) and the scarce Water Sedge (*Carex aquatilis*).

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

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

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

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

SITE SYNOPSIS

Site Name: Wicklow Mountains SAC

Site Code: 002122

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

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[3110] Oligotrophic Waters containing very few minerals
[3160] Dystrophic Lakes
[4010] Wet Heath
[4030] Dry Heath
[4060] Alpine and Subalpine Heaths
[6130] Calaminarian Grassland
[6230] Species-rich *Nardus* Grassland*
[7130] Blanket Bogs (Active)*
[8110] Siliceous Scree
[8210] Calcareous Rocky Slopes
[8220] Siliceous Rocky Slopes
[91A0] Old Oak Woodlands

[1355] Otter (*Lutra lutra*)

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. The vegetation is largely dominated by Heather and Cross-leaved Heath, with cottongrasses (*Eriophorum vaginatum* and *E. angustifolium*), Deergrass (*Scirpus cespitosus*) and Bog Asphodel (*Narthecium ossifragum*). In drier areas, Bilberry and Cowberry (*Vaccinium vitis-idaea*) are common, while the scarce Bog-rosemary (*Andromeda polifolia*) is also found. Blanket bog occurs over extensive areas of deeper peat on the plateau and also on gentle slopes at high altitudes.

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

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 grey-green 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*).

Old lead mine workings at Glendasan support an estimated 3.6 hectares of Calaminarian Grassland, with a suite of rare metallophyte (metal-loving) bryophytes, including the moss *Ditrichum plumbicola* and the liverworts *Cephaloziella integerrima*, *C. massalongi* and *C. nicholsonii*.

Small areas of old oakwood (Blechno-Quercetum petraeae type) occur on the slopes of Glendalough and Glenmalure, near Lough Tay and Lough Dan, with native Sessile Oak (*Quercus petraea*) trees, many of which are 100-120 years old. On wetter areas, wet broadleaved semi-natural woodlands occur which are dominated by Downy Birch (*Betula pubescens*). Mixed woodland with non-native tree species also occurs.

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.

The Red Data Book fish species Arctic Char has been recorded from Lough Dan, but this population may now have died out.

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.

Large areas of the site are owned by the National Parks and Wildlife Service (NPWS) and are managed for nature conservation based on traditional land uses of upland areas. The most common land use is traditional sheep grazing, but others include turf cutting, mostly hand-cutting but some machine-cutting also occurs. These activities are largely confined to the Military Road, where there is easy access. Large areas which had been previously hand-cut and are now abandoned are regenerating. In the last 40 years, forestry has become an important land use in the uplands, and has affected both the wildlife and the hydrology of the area. Amenity use is very

high, with Dublin city close to the site. Peat erosion is frequent on the peaks. This may be a natural process, but is likely to be accelerated by activities such as grazing.

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

SITE SYNOPSIS

SITE NAME: WICKLOW MOUNTAINS SPA

SITE CODE: 004040

This is an extensive upland site, comprising a substantial part of the Wicklow Mountains. Most of the site is in Co. Wicklow, but a small area lies in Co. Dublin. The underlying geology of the site is mainly of Leinster granites, flanked by Ordovician schists, mudstones and volcanics. The area was subject to glaciation and features fine examples of glacial lakes, deep valleys and moraines. Most of site is over 300 m, with much ground being over 600 m; the highest peak is Lugnaquillia (925 m). The substrate over much of site is peat, with poor mineral soil occurring on the slopes and lower ground. Exposed rock and scree are features of the site. The predominant habitats present are blanket bog, heaths and upland grassland.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Merlin and Peregrine.

A series of surveys of the Wicklow Mountains SPA indicates that up to 9 pairs of Merlin breed within the site in any one year. Traditionally a ground-nesting species, Merlin in the Wicklow Mountains are usually found nesting in old crows nests in conifer plantations. The open peatlands provide excellent foraging habitat for Merlin with small birds such as Meadow Pipit being their main prey. The cliffs and crags within the site also provide ideal breeding locations for Peregrine (20 pairs in 2002). Other birds of the open peatlands and scree slopes that have been recorded within the site include Ring Ouzel and Red Grouse.

The Wicklow Mountains SPA is of high ornithological importance as it supports nationally important populations of Merlin and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive. Part of Wicklow Mountains SPA is a Statutory Nature Reserve.

7.7.2014

Prepared by
Roughan & O'Donovan
Arena House, Arena Road, Sandyford, Dublin 18
Tel: +353 1 2940800 Fax: +353 1 2940820
Email: info@rod.ie www.rod.ie