Carlisle Site Kimmage Large-Scale Residential Development Ecological Impact Assessment







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### 1. INTRODUCTION

Moore Group was commissioned to undertake a Habitat Survey and EcIA including a Bat Survey and Invasive Species Survey of the site of a proposed Large-Scale Residential Development at the Carlisle Site, Kimmage, Dublin 12.

This report was compiled by Ger O'Donohoe of Moore Group providing information on habitats in the study area. Ger O'Donohoe M.Sc. is the principal ecologist with Moore Group and has 27 years' experience in ecological impact assessment. He graduated from GMIT in 1993 with a B.Sc. in Applied Freshwater & Marine Biology and subsequently worked in environmental consultancy while completing an M.Sc. in Environmental Sciences, graduating from Trinity College, Dublin in 1999. His primary role in Moore Group is as Principal Ecologist in the management and compilation of Ecological Impact Assessments and Appropriate Assessment of the terrestrial and aquatic environments of any particular development.

The report provides information on ecological features if present within the study areas, of particular significance, primarily designated habitats and species, including habitats/species listed in Annex I, II and IV of the EU Habitats Directive, rare flora listed in the Flora Protection Order along with other seminatural habitats of conservational value.

The following important ecological receptors were considered in planning and designing the Proposed Development, and in assessing its likely ecological effects:

- Sites with nature conservation designations, including proposed NHAs, the reasons for their designation, and their conservation objectives, where available;
- Annex IV (Habitats Directive) species of fauna and flora, and their breeding sites and resting places, which are strictly protected under the European Communities (Birds and Natural Habitats) Regulations, 2011;
- Other species of fauna and flora which are protected under the Wildlife Acts, 1976-2012;
- 'Protected species and natural habitats', as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including:
  - Birds Directive Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur);
  - Habitats Directive Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur);
- Other habitats of ecological value in a national to local context, including rocky habitats in the general area;
- Stepping stones and ecological corridors encapsulated by Article 10 of the Habitats Directive.

The report has been compiled in compliance with the European Communities Legal requirements and follows EPA Guidelines on Information to be contained in an EIAR (EPA, 2022) and on policy and guidance outlined in Section 2.

The European Habitats Directive 92/43/EEC (Article 6) indicates the need for plans and projects to be subject to Habitats Directive Assessment (also known as Appropriate Assessment) if the plan or project not directly connected with or necessary to the management of a Natura 2000 site (which includes SACs and SPAs) but which has the potential to have implications on a site's conservation objectives. These implications can be significant effects either individually or in combination with other plans or projects.

The site location is presented in Figure 1 below.



Figure 1. Showing the Carlisle site location at Kimmage, Dublin 12.

#### 2. ASSESSMENT METHODOLOGY

#### 2.1. POLICY & LEGISLATION

#### 2.1.1. EU Habitats Directive

The "Habitats Directive" (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna) is the main legislative instrument for the protection and conservation of biodiversity within the European Union and lists certain habitats and species that must be protected within wildlife conservation areas, considered to be important at a European as well as at a national level. A "Special Conservation Area" or SAC is a designation under the Habitats Directive. The Habitats Directive sets out the protocol for the protection and management of SACs.

The Directive sets out key elements of the system of protection including the requirement for *"Appropriate Assessment"* of plans and projects. The requirements for an Appropriate Assessment are set out in the EU Habitats Directive. Articles 6(3) and 6(4) of the Directive.

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#### 2.1.2. EU Birds Directive

The "Birds Directive" (Council Directive 79/409/EEC and Council Directive 2009/147/EC on the Conservation of Wild Birds) provides for a network of sites in all member states to protect birds at their breeding, feeding, roosting and wintering areas. This directive identifies species that are rare, in danger of extinction or vulnerable to changes in habitat and which need protection (Annex I species). Appendix I indicates Annex I bird species as listed on the Birds Directive. A "Special Protection Area" or SPA, is a designation under The Birds Directive.

Special Areas of Conservation and Special Protection Areas form a pan-European network of protected sites known as Natura 2000 sites and any plan or project that has the potential to impact upon a Natura 2000 site requires appropriate assessment.

#### 2.1.3. Wildlife Acts 1976 - 2012

The primary domestic legislation providing for the protection of wildlife in general, and the control of some activities adversely impacting upon wildlife is the Wildlife Act of 1976. The aims of the wildlife act according to the National Parks and Wildlife Service are "... to provide for the protection and conservation of wild fauna and flora, to conserve a representative sample of important ecosystems, to provide for the development and protection of game resources and to regulate their exploitation, and to provide the services necessary to accomplish such aims." All bird species are protected under the act. The Wildlife (Amendment) Act of 2000 amended the original Act to improve the effectiveness of the Act to achieve its aims. The Wildlife (Amendment) Act of 2012 amended the original Act to improve the effectiveness of the Act to achieve its aims.

#### 2.2. SURVEY METHODOLOGY

#### 2.2.1. Desk Study

The assessment was carried out in three stages, firstly through desktop assessment to determine existing records in relation to habitats and species present in the study areas. This included research on the NPWS metadata website, the National Biodiversity Data Centre (NBDC) database and a literature review of published information on flora and fauna occurring in the development area.

#### 2.2.2. Field Study

The second phase of the assessment involved a site visit to establish the existing environment in the footprint of the proposed development area. Areas which were highlighted during desktop assessment were investigated in closer detail according to the Heritage Council Best Practice Guidance for Habitat Survey and Mapping (Smith *et al.*, 2011). Habitats in the proposed development area were classified according to the Heritage Council publication "*A Guide to Habitats in Ireland*" (Fossitt, 2000). This publication sets out a standard scheme for identifying, describing and classifying wildlife habitats in Ireland. This form of classification uses codes to classify different habitats based on the plant species present. Species recorded in this report are given in both their Latin and English names. Latin names for plant species follow the nomenclature of "*An Irish Flora*" (Parnell & Curtis, 2012).

Habitats were surveyed on the 3 September 2021 by conducting a study area walkover covering the main ecological areas identified in the desktop assessment. The survey dates are at the end of the optimal botanical survey period but adequate given the suburban nature of the site. A photographic record was made of features of interest.

Signs of mammals such as badgers and otters were searched for while surveying the study area noting any sights, signs or any activity in the vicinity especially along adjacent boundaries.

A dusk mobile bat detector survey was carried out during the dusk period to survey for commuting, feeding and potential roost sites. The survey commenced at 19:00 with sunset at Dublin occurring at c. 20:10.

The bat detectors used during the walked surveys were a Pettersson D230 bat detector and an Echo Meter Touch 2 Pro. A contact describes a bat observed by the surveyor. This contact can range from a commuter passing quickly to a foraging bat circling a feature lasting for several minutes. Some observations contain multiple bats. When several bats of the same species are encountered together, they are recorded under the one contact. A separate contact is recorded for each species. A contact finishes when the recorder assumes the bat is no longer present. It is likely that the same bat is recorded in several contacts throughout the night. This survey type cannot estimate abundance of bats, rather activity; the amount of use bats make of an area / feature. The survey followed the guidelines as set out in bat conservation Ireland's 'Bat Survey Guidelines'.

Conditions on the night of the survey were fair with 90% cloud cover and the air temperature varied during the evening of the survey between 15.0C at 20:00 to 13C at 22:00. Light showers occurred during the early part of the survey with overall conditions being good for bat survey work.

The survey undertaken is in line with recommendations of the Bat Conservation Trust 'Good Practice Guidelines', 3<sup>rd</sup> edition, 2016 (Collins, J (ed)(2016) and Irish Wildlife Manual No. 25' (Kelleher, C. & Marnell, F. 2006).

Birds were surveyed using standard transect methodology and signs were recorded where encountered during the field walkover surveys.

### 2.2.3. Data Sources & Guidance

Sources of information that were used to collect data on the Natura 2000 network of sites, and the environment within which they are located, are listed below:

- The following mapping and Geographical Information Systems (GIS) data sources, as required:
  - o National Parks & Wildlife (NPWS) protected site boundary data;
  - o Ordnance Survey of Ireland (OSI) mapping and aerial photography;
  - o OSI/Environmental Protection Agency (EPA) rivers and streams, and catchments;
  - Open Street Maps;
  - Digital Elevation Model over Europe (EU-DEM);
  - Google Earth and Bing aerial photography 1995-2019;
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including:

- Natura 2000 Standard Data Form;
- Conservation Objectives;
- Site Synopses;
- National Biodiversity Data Centre records;
  - Online database of rare, threatened and protected species;
  - Publicly accessible biodiversity datasets.
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2013); and
- Relevant Development Plans and Local Area Plans in neighbouring areas;
  - Dublin City Development Plan 2022-2028

The final part of the assessment involves an evaluation of the study area and determination of the potential impacts on the habitats of the study area. This part of the assessment forms the basis for Impact Assessment and is based on the following guidelines and publications:

- Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2019)
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009)
- Ecological Surveying Techniques for Protected Flora & Fauna (NRA, 2008)
- Best Practice Guidance for Habitat Survey and Mapping (Heritage Council, 2011);
- EPA Guidelines on Information to be contained in an EIAR (EPA, 2022).

### 2.2.4. Site Evaluation and Impact Assessment

While formulated for linear projects, the TII Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009) are still relevant and outlines the methodology for evaluating ecological impacts of the Proposed Development in the present report. According to the TII Guidelines, the Ecological Study should address:

- Designated conservation areas and sites proposed for designation within the zone(s) of influence of any of the route options,
- All the main inland surface waters (e.g. rivers, streams, canals, lakes and tanks) that are intersected by any of the route corridor options, including their fisheries value and any relevant designations,
- Aquifers and dependent systems and turloughs and their subterranean water systems,
- Any known or potentially important sites for rare or protected flora or fauna that occur along or within the zone(s) of influence of any of the route options,
- Any other sites of ecological value, that are not designated, along or in close proximity to any of the route corridor options,

- Any other relevant conservation designations or programmes (e.g. catchment management schemes, habitat restoration or creation projects, community conservation projects, etc.),
- Any other features of particular ecological or conservation significance along any of the route options.

The TII Guidelines set out a method of evaluating the importance of sites identified and in turn the evaluation of the significance of impacts. The Evaluation Scheme is presented in Appendix 1 for reference.

Impact Assessment is then based on CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland, 2019.

# 3. PROJECT DESCRIPTION

The proposed Large-Scale Residential Development will consist of the construction of 5 no. blocks of development and will range in height up to 6 storeys. This will provide 208 no. residential units (104 no. 1 beds and 104 no. 2 beds) all of which will have associated private balconies/terraces. Car, cycle and motorbike parking will be located at undercroft and surface level. Vehicular/pedestrian/cyclist access is provided off Kimmage Road West via the existing Ben Dunne Gym access route. All associated site development works, open spaces, landscaping, boundary treatments, plant areas, waste management areas, and services (including ESB substations) shall be provided.

Permission was granted, under ABP 313043 on the 22/09/2022, for a Strategic Housing Development (SHD) on the subject site comprising 208 no. apartment units in 5 no. blocks. The current proposed Large Residential Development (LRD) application provides the same layout and quantum of units as this permitted development. The proposed LRD \*lighting layout\* is the same as permitted in the SHD application.

The site boundary continues west along Kimmage Rd. West to facilitate connection to municipal sewer at the intersection of Whitehall Rd. W and St. Agnes Rd., see Figure 2 below.



Figure 2. Site layout of the proposed development. (Note; the site boundary continues west along Kimmage Rd. West to facilitate connection to municipal sewer)

### 4. EXISTING ENVIRONMENT

### 4.1. DESIGNATED CONSERVATION AREAS

The Zone of Influence may be determined by considering the Proposed Development's potential connectivity with European sites, in terms of:

- Nature, scale, timing and duration of all aspects of the proposed works and possible impacts, including the nature and size of excavations, storage of materials, flat/sloping sites;
- Distance and nature of potential pathways (dilution and dispersion; intervening 'buffer' lands, roads etc.); and
- Location of ecological features and their sensitivity to the possible impacts.

The potential for source pathway receptor connectivity is firstly identified through GIS interrogation and detailed information is then provided on sites with connectivity. European sites that are located within a potential Zone of Influence of the Proposed Development are listed in Table 1 and presented in Figures 4 and 5, below. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website (www.npws.ie) on 2 November 2022. This data was interrogated using GIS analysis to provide mapping, distances, locations and pathways to all sites of conservation concern including pNHAs, NHA and European sites.

Site Code	Site name	Distance (km) <sup>2</sup>
000210	South Dublin Bay SAC	6.31
000206	North Dublin Bay SAC	9.50
004006	North Bull Island SPA	9.49
004024	South Dublin Bay and River Tolka Estuary SPA	6.33

*Table 1 European Sites located within the potential Zone of Influence*<sup>1</sup> *of the Proposed Development.* 

The proposed development is located on an enclosed site in the suburban environment of Dublin City. The site is self-contained and surface water goes to ground with no direct hydrological pathways to offsite surface water bodies. Operational wastewater will be directed to Ringsend WWTP where it will be treated appropriately.

### 4.2. HABITAT DESCRIPTIONS

The Proposed Development site is comprised of a field of Improved grassland (GA1) and the local access road (BL3), see Figure 3 below. Species present in the green area includes Cocksfoot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*), Rye grasses (*Lolium spp.*), Nettle (*Urtica diocia*), Thistles,

<sup>&</sup>lt;sup>1</sup> All European sites potentially connected irrespective of the nature or scale of the proposed development.

<sup>&</sup>lt;sup>2</sup> Distances indicated are the closest geographical distance between the proposed development and the European site boundary, as made available by the NPWS. Connectivity along hydrological pathways may be significantly greater.

(*Cirsium arvense, C. vulgaris*), Broad dock (*Rumex obtusifolius*), frequent Ragwort (*Senecio jacobaea*), Broad plantain (*Plantago major*), Stitchwort (*Stellaria holostea*), Dandelion (*Taraxacum officinale* agg.) along with Sowthistles (*Sonchus asper and S. oleraceus*) and Cleavers (*Galium aparine*) along the field boundaries.

There were no third schedule invasive species recorded at the proposed development site.

The site verges include neighbouring horticultural hedges with species present including Sycamore, Leyland cypress, Escallonia and Butterfly Bushes. One small patch of Montbretia was recorded. The verges have a dense growth of Ivy (*Hedera helix*) in paces along with Field bindweed (*Convolvulus arvensis*) and Bramble (*Rubus fruticosus* agg.). A stand of Rosebay willowherb (*Chamerion angustifolium*) was recorded in a linear patch in the northeastern corner. There are large spreads of Nettle toward the boundary of the Carlisle Gym complex to the south.



Figure 3. Showing the main Carlisle site boundary at Kimmage, Dublin 12. (Note; the site boundary continues west along Kimmage Rd. West to facilitate connection to municipal sewer)

# 4.1. FAUNA

## 4.1.1. Mammals

### <u>Otters</u>

There is no potential for otters on the development site.

# **Badgers**

There are no badger setts in the study area and no potential for badgers on the development site.

### <u>Bats</u>

The NBDC database was consulted for details on bat records held for the site and the surrounding area. The database was consulted on the 04/10/2021 for details on historical records from the site, both in a surrounding 100m polygon. There are no records of bat species within this grid.

The dusk bat survey recorded only two nearby passes by Leisler's bats (*Nyctalus leisler*), the first contact at 20:44 coming from a northwest direction followed by one other contact at 21:05 registering as unidentified on the Echo Meter which appeared to come farther to the west. The tone and call type although very short on the Pettersson Detector confirmed the contact also as Leisler's bat. These were the only contacts during the survey.

A fox was observed on the site when entering to commence the bat survey. Foxes are not afforded legal protection and are common visitors to green areas of suburban Dublin.

### 4.1.2. Birds

All nesting birds are protected under the Wildlife Acts. A list of breeding bird species recorded during fieldwork in September 2021 is presented in Table 2 below.

Birds	Scientific name	BWI Status	Habitat Type
Blackbird	Turdus merula	Green	Dense woodland to open moorland, common
			in gardens
Magpie	Pica pica	Green	Dense woodland to open moorland, common
			in gardens
Woodpigeon	Columba palumbus	Green	Gardens, woods, hedges

Table 2 Birds recorded during fieldwork in June 2021.

The site is over 6 km to Dublin Bay and is not suitable for wintering bird species.

### 5. ASSESSMENT OF IMPACTS

### 5.1. SITE EVALUATION

The ecological value of the site was assessed following the guidelines set out in the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment (2019) and according to the Natura Scheme for evaluating ecological sites (after Nairn & Fossitt, 2004). Judgements on the evaluation were made using geographic frames of reference, *e.g.* European, National, Regional or Local.

Due cognisance of features of the landscape which are of major importance for wild flora and fauna, such as those with a *"stepping stone"* and ecological corridors function, as referenced in Article 10 of the Habitats Directive were considered in this assessment.

Following a detailed literature review, desktop assessment and field survey the site can be categorised into a single habitat type:

• Improved grassland (GA1)

There were no rare or protected floral species recorded on the site and there were no records of Third schedule invasive species.

The habitats under the footprint of the proposed development are of low local ecological value.

### 5.2. IMPACT ASSESSMENT

#### 5.2.1. Direct Impacts

#### Habitats

The Proposed Development site is for the most part comprised of a grassy field which is of low local ecological value. There were no Third schedule invasive species recorded in the Proposed Development area.

### Fauna

#### Otters

There will be no direct or indirect impacts on otters. The existing site drainage is directed toward the municipal sewer and there is no direct connectivity between the site and any water courses.

#### Badgers

There will be no direct or indirect impact on badgers.

### Bats

There will be no direct impacts on bats.

Lighting from the proposed residential scheme is unlikely to affect commuting bats given the existing levels of urban lighting along the site boundaries and the urban setting of the site.

### Birds

There are no predicted significant impacts on birds. The site is not suitable for by Swift, Swallow or Owl nesting. Wood Pigeons, Magpie and Blackbirds are of low local concern.

### 5.2.2. Indirect Impacts

The construction phase of the Proposed Development will involve some ground disturbance and construction activity. There are no direct pathways to Dublin Bay and no predicted impacts on water quality.

In terms of the operational phase, wastewater from the proposed scheme will be directed to municipal sewer. Wastewater from the proposed development will be directed to Ringsend WWTP which will have the capacity to assimilate the additional load. There will be no indirect impacts from wastewater on European sites identified in the potential zone of impact of the Proposed Development.

### 5.2.3. Cumulative Impacts

Cumulative impacts or in-combination effects are changes in the environment that result from numerous human-induced, small-scale alterations. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

There are no predicted in-combination effects given that the Proposed Development is unlikely to have any adverse effects on any conservation sites or on biodiversity.

### 6. MITIGATION MEASURES

There are no proposed mitigation measures for habitats.

There are no proposed mitigation measures for birds.

There are no proposed mitigation measures for bats.

There are no significant impacts predicted from the proposed development on habitats, flora, fauna or biodiversity.

There will be no direct or indirect impacts on European sites identified in the potential zone of impact of the Proposed Development.

### 8. REFERENCES

CIEEM (2019) Guidelines for Ecological Impact Assessment in the UK And Ireland Terrestrial, Freshwater, Coastal and Marine September 2018 Version 1.1 - Updated September 2019.

Department of the Environment, Heritage and Local Government (2010) Guidance on Appropriate Assessment of Plans and Projects in Ireland (as amended February 2010).

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# Appendix 1

# **TII Evaluation of Habitats**

### **Ecological valuation: Examples**

#### International Importance:

- 'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation.
- Proposed Special Protection Area (pSPA).
- Site that fulfills the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).
- Features essential to maintaining the coherence of the Natura 2000 Network.<sup>4</sup>
- □ Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive.
- Resident or regularly occurring populations (assessed to be important at the national level)<sup>5</sup> of the following:
  - Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or
  - □ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive.
- Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971).
- □ World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972).
- Biosphere Reserve (UNESCO Man & The Biosphere Programme).
- Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979).
- Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979).
- Biogenetic Reserve under the Council of Europe.
- European Diploma Site under the Council of Europe.
- Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988).<sup>6</sup>

#### National Importance:

- Site designated or proposed as a Natural Heritage Area (NHA).
- Statutory Nature Reserve.
- Refuge for Fauna and Flora protected under the Wildlife Acts.
- □ National Park.
- Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park.
- Resident or regularly occurring populations (assessed to be important at the national level)<sup>7</sup> of the following:
  - Species protected under the Wildlife Acts; and/or
  - Species listed on the relevant Red Data list.
- □ Site containing 'viable areas'<sup>8</sup> of the habitat types listed in Annex I of the Habitats Directive.

#### **County Importance:**

- Area of Special Amenity.<sup>9</sup>
- Area subject to a Tree Preservation Order.
- Area of High Amenity, or equivalent, designated under the County Development Plan.
- Resident or regularly occurring populations (assessed to be important at the County level)<sup>10</sup> of the following:
  - Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;
  - □ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;
  - Species protected under the Wildlife Acts; and/or
  - Species listed on the relevant Red Data list.
- Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance.
- County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local BAP,<sup>11</sup> if this has been prepared.
- Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county.
- Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.

#### Local Importance (higher value):

- Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared;
- Resident or regularly occurring populations (assessed to be important at the Local level)<sup>12</sup> of the following:
  - □ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;
  - Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;
  - Species protected under the Wildlife Acts; and/or
  - Species listed on the relevant Red Data list.
- Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality;
- Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.

#### Local Importance (lower value):

- Sites containing small areas of semi-natural habitat that are of some local importance for wildlife;
- Sites or features containing non-native species that are of some importance in maintaining habitat links.



Photo 1. Showing the habitats present on the proposed development site.



Photo 2. Showing the existing adjacent Carlisle Gym complex which is floodlit at night.