# **ECOLOGICAL IMPACT ASSESSMENT**

FOR THE PROPOSED

# SOCIAL HOUSING INFILL AT ROEBUCK ROAD, CLONSKEAGH, CO. DUBLIN

## for: Dún Laoghaire-Rathdown County Council

County Hall Marine Road Dún Laoghaire Co. Dublin



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# **1** INTRODUCTION

## **1.1 OVERVIEW AND AIMS**

This report assesses potential impacts that may arise from the proposed housing development at Roebuck Road on biodiversity within the receiving environment, in accordance with the following guidance documents:

- Draft Guidelines on Information to be contained in Environmental Impact Statement Reports. (2017) Environmental Protection Agency.
- *Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine* (2018). Chartered Institute of Ecology and Environmental Management (CIEEM), Ver. 1.1 Updated September 2019.
- *Guidelines for Preliminary Ecological Appraisal.* (2017) Chartered Institute of Ecological and Environmental Management (CIEEM), Second Edition.
- A Guide to Habitats in Ireland (2000), Fossitt JA.
- Best Practice Guidance for Habitat Survey and Mapping. (2011) The Heritage Council.

It aims to discuss the existing ecological environment, the potential impacts of the masterplan and avoidance and mitigation measures in relation to habitats, flora and fauna in the zone of influence (ZOI) of the proposed masterplan. A separate stand-alone AA Screening Report is also included in the planning application documentation.

## **1.2 LEGISLATIVE CONTEXT**

Specific focus is placed on protected species/habitat features as well as those of local or national importance. Ireland's *National Biodiversity Action Plan 2017–2021*<sup>1</sup>, in accordance with the Convention on Biological Diversity, is a framework for the conservation and protection of Ireland's biodiversity, with an overall objective to secure the conservation, including, where possible, the enhancement and sustainable use of biological diversity in Ireland and to contribute to collective efforts for conservation of biodiversity globally. The plan is implemented through legislation and statutory instruments concerned with nature conservation. The Planning and Development Acts, 2000 (revised September 2020) and the European Communities (Environmental Impact Assessment) (Amendment) Regulations, 1989 to 1999 are particularly important in that regard and include a number of provisions directly concerned with the protection of natural heritage and biodiversity.

The Wildlife Acts, 1976–2012 are the principal mechanism for the legislative protection of wildlife in Ireland. They outline strict protection for species that have significant conservation value. In summary, the Wildlife Acts protect species from injury, disturbance and damage to breeding and resting sites. All species listed in the Wildlife Acts must, therefore, be a material consideration in the planning process. The Flora (Protection) Order, (2015) gives legal protection to certain species of wild flora, *i.e.*, vascular plants, mosses, liverworts, lichens and stoneworts. Under the Order, it is an offence to uproot, damage, alter, or interfere with any species listed species listed within the Order, or to damage or alter their supporting habitats.

The European Communities (Birds and Natural Habitats) Regulations, 2011–2015 transpose into Irish law Directive 2009/147/EC (the Birds Directive) and the Habitats Directive, which list habitats and species of Community, *i.e.*, European Union (EU), importance for conservation and that require protection. This protection is afforded in part through the designation of areas that represent significant populations of listed species within a European context, *i.e.*, Natura 2000 sites. An area designated for bird species is classed as a Special Protection Area (SPA), and an area designated for other protected species and habitats is classed as a Special Area of Conservation (SAC). Birds listed in Annex I of the Birds Directive in SPAs and habitats and species listed in Annexes I and II, respectively, of the Habitats Directive in SACs in which they are designated features have full European protection. Species listed on Annex IV of the Habitats Directive are strictly protected wherever they occur, whether inside or outside European sites. Annex I habitats outside of SACs are

<sup>&</sup>lt;sup>1</sup>NPWS: <u>https://www.npws.ie/sites/default/files/publications/pdf/National%20Biodiversity%20Action%20Plan%20English.pdf</u>

still considered to be of national and international importance and, under Article 27(4)(b) of the European Communities (Birds and Natural Habitats) Regulations, 2011, public authorities have a duty to strive to avoid the pollution or deterioration of Annex I habitats and habitats integral to the functioning of SPAs.

Sites of national importance for nature conservation are afforded protection under planning policy and the Wildlife Acts, 1976–2012. NHAs are sites that are designated under statute for the protection of flora, fauna, habitats and geological interest. Proposed NHAs (pNHAs) are published sites identified as of similar conservation interest but have not been statutorily proposed or designated.

The International Union for the Conservation of Nature and Natural Resources (IUCN) provides a global approach for evaluating the conservation status of species to inform and catalyse action for biodiversity conservation through the Red List of Threatened Species.

## 1.3 APPROACH TO ECOLOGICAL EVALUATION AND IMPACT ASSESSMENT

Assessing impact significance is a combined function of the value of the affected feature (its ecological importance), the type of impact and the magnitude of the impact. It is necessary to identify the value of ecological features within the study area in order to evaluate the significance and magnitude of possible impacts.

The following parameters are described when characterising impacts (following CIEEM (2018), EPA (2017) and TII (2009, Rev. 2)):

**Direct and Indirect Impacts** - An impact can be caused either as a direct or as an indirect consequence of a proposed masterplan.

**Magnitude** - Magnitude measures the size of an impact, which is described as high, medium, low, very low or negligible.

**Extent** - The area over which the impact occurs – this should be predicted in a quantified manner.

**Duration** - The time for which the effect is expected to last prior to recovery or replacement of the resource or feature.

- Temporary: Up to 1 Year;
- Short Term: The effects would take 1-7 years to be mitigated;
- Medium Term: The effects would take 7-15 years to be mitigated;
- Long Term: The effects would take 15-60 years to be mitigated;
- Permanent: The effects would take 60+ years to be mitigated.

**Likelihood** – The probability of the effect occurring taking into account all available information.

- Certain/Near Certain: >95% chance of occurring as predicted;
- Probable: 50-95% chance as occurring as predicted;
- Unlikely: 5-50% chance as occurring as predicted;
- Extremely Unlikely: <5% chance as occurring as predicted.

The CIEEM Guidelines define an ecologically significant impact as an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographic area. The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified (CIEEM, 2018).

The results of the ecological survey were evaluated to determine the significance of identified features located in the study area on an importance scale ranging from international-national-county-local. The local scale is approximately equivalent to one 10km square but can be operationally defined to reflect the character of the area of interest. Because most sites will fall within the local scale, this is sub-divided into three categories: high local importance, local importance, and local value. The criteria used for assessing the importance of ecological features are shown in Table 1.

Importance	Criteria
International	An internationally designated site or candidate site (SPA, cSPA, SAC, cSAC, Ramsar Site, Biogenetic Reserve).
	Also, sites which qualify for designation as SACs or SPAs – this includes sites on the NGO shadow list of SAC's.
National	A nationally designated site or candidate site (NHA, pNHA). Sites which hold Red Data Book (Curtis and McGough, 1988) plant species.
County	Sites which hold nationally scarce plant species (recorded from less than 65 of the national 10km grid squares); unless they are locally abundant.
	Sites which hold semi-natural habitats likely to be of rare occurrence within the county.
	Sites which hold the best examples of a semi-natural habitat type within the county.
High Local Importance	Sites which hold semi-natural habitats and/or species likely to be of rare occurrence within the local area.
	Sites which hold the best examples of a high quality semi-natural habitat type within the local area.
Local Importance	Sites which hold high quality semi-natural habitats.
Local Value	Any semi-natural habitat.

Table I children used in Assessing the Importance of Ecological reatures
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# **2 METHODOLOGY**

## 2.1 DESK STUDY

A desktop review was carried out to identify features of ecological importance within the proposed masterplan site and the wider environment. Ecological impact assessment is conducted following a standard source-pathway-receptor model, where, in order for an impact to be established all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) *e.g.*, pollutant run-off from proposed works.
- Pathway(s) *e.g.*, groundwater connecting to nearby qualifying wetland habitats.
- Receptor(s) qualifying aquatic habitats and species of European sites.

Specific focus was put into the assessment of sensitive receptors of protected species/habitat features; as well as those of local or national importance. A source is any identifiable element of the masterplan proposal which is known to have interactions with ecological processes. Pathways are any connections or links between the source and the receptor. This report determines if direct, indirect or cumulative adverse effects will arise from the proposed masterplan.

## 2.2 FIELD SURVEY

Data was collected during a walkover survey conducted on the 28<sup>TH</sup> of March 2021. The present data represents a walkover of the entire proposed site. A habitat survey of the site was conducted following standard guidelines set out in 'Best Practice Guidance for Habitat Survey and Mapping' developed by the Heritage Council of Ireland<sup>2</sup>. Habitats were classified using habitat descriptions and codes published by the Heritage Council in 'A Guide to Habitat Types in Ireland'<sup>3</sup>. Plant species nomenclature follows Rose's 'The Wild Flower Key: How to identify wild flowers, trees and shrubs in Britain and Ireland<sup>4</sup>. A list of the dominant and notable plant species was taken for each habitat type. Particular emphasis was given to the possible occurrence of rare or legally protected plant species (as listed in Flora Protection Order 1999) or Red-listed plant species (Curtis & McGough 1985, Wyse Jackson *et al.* 2016).

Observations were made for fauna species present or likely to occur on site. Emphasis was placed on mammals and birds, and especially for species listed in the respective Red lists, namely Colhoun and Cummins (2013), and Marnell et al. (2009). For mammals, the survey was focused on signs of their presence/activity, such as tracks, feeding marks and droppings, as well as any direct observations. For bats, the main focus was on evaluation of suitable habitats to support roosting bats; however, an ecological assessment of habitat suitability was undertaken throughout the site. The assessment process undertaken for bats followed the BCT Guidelines<sup>5</sup>. Chapter 4 of these guidelines identify the approach to assess 'preliminary ecological appraisal for bats'. This chapter sets out methods for identifying habitat suitability which do not constitute assumptions. Based on the information from the assessment the survey effort requirements are identified.

Bird species were recorded by sight and sound during a bird point count, following the Birdwatch Ireland Country Breeding Bird survey methods. In addition, all linear hedgerows were walked and species were recorded. Particular attention was focused on areas within the site of high ecological value that interact or overlap with parts of the proposal to increase biodiversity of the site and provide civil recreation.

<sup>&</sup>lt;sup>2</sup> Smith, George F., et al. "Best practice guidance for habitat survey and mapping." The Heritage Council: Ireland (2011)

<sup>&</sup>lt;sup>3</sup> Fossitt, J.A., 2000. A guide to habitats in Ireland. Heritage Council/ Chomhairle Oidhreacht

<sup>&</sup>lt;sup>4</sup> Rose, F., O'Reilly, C., Smith, D.P. and Collings, M., 2006. The wild flower key: how to identify wild flowers, trees and shrubs in Britain and Ireland. Frederick Warne.

<sup>&</sup>lt;sup>5</sup> Collins, J. (ed.) 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

During all surveys, particular attention was given to assessing the presence of rare or protected species. Each species identified was assessed in term of the EU Habitat Directive (92/43/EEC), Bird Directive (2009/147/EC), the Wildlife Act (1976), the Wildlife Amendment Act (2000) and the Red Data Lists for threatened and protected species, published on the NPWS website (<u>www.npws.ie</u>).

### 2.2.1 LIMITATIONS

Given the brownfield nature of the site and the timing of the surveys, there were no significant limitations of the surveys.

# **3 PROPOSED HOUSING DEVELOPMENT**

## **3.1 PROPOSED WORKS**

The proposal involves the development of residential units and associated parking and landscaping, on a site approx. 0.07ha in area. The proposal is for 4 no housing units within a 3-storey development on the site.

The proposed development includes:

- Construction of 2 no. 4-bed/7 person 2-storey houses, with approx. floor area of 120 m2.
- Construction of 2 no. 1-bed/ 2 person apartments with approx. floor area of 55 m2.
- Provision of 6 no. new on street car parking spaces along White Oaks Road.
- Development of a small landscaped area to the front of the development.
- Strengthening of existing site boundary hedgerows were appropriate.
- Associated ancillary works



Figure 3.1 Site boundary showing environs



SOUTH-EAST ELEVATION(WHITE OAKS ROAD) SCALE 1:100



NORTH-WEST ELEVATION (REAR ) SCALE 1:100

#### Figure 3.2 North-west elevations of proposed housing



NORTH- EAST ELEVATION (ROEBUCK ROAD)-SCALE 1:100



#### SOUTH-WEST ELEVATION SCALE 1:100

#### Figure 3.3 South-west elevations of proposed development



#### Figure 3.4 Proposed site layout

## **3.2 RECEIVING ENVIRONMENT**

### 3.2.1 OVERVIEW

The site is located on Roebuck Road in an urban environment behind UCD. The site is heavily developed surrounded primarily by residential areas. The site itself is a brownfield site which is covered by Built Infrastructure/Artificial surfaces (BL3) habitat. This is compacted cobble which has been colonised by disturbed ground species that have penetrated the cobble. There are some hedging features at the end, and some trees to the back of the site.

### **3.2.2 ZONE OF INFLUENCE**

The operational phase works are not anticipated to have any impacts beyond the plan boundary due to the proposed characteristics of the project and the existing use of the site (high intensity agricultural grazing). The construction phase works may have some effects beyond the boundary due to increased noise pollution, imposing artificial lighting conditions and possible water quality effects to the surrounding area. Possible operational phase impacts could be lighting and drainage alteration. Following the source-pathway-receptor model identifying the potential likely sources a Zone of Influence (ZOI) was established; 2km radius around the proposed site. Given the nature of the proposed works, impacts are not foreseen to be significant beyond this distance.

An ecological zone with a reference of 10km was scanned as part of the desk-based assessment to identify any potential external interactions from vagile species which may utilise resources precent at or around the site. Beyond this distance there is no ecologically relevant context that may result in significant impacts given the characteristics of the proposed works; however, in the context of protected sites a 15km desktop review was undertaken following a precautionary approach.

### 3.2.3 HYDROLOGY

The site is directly adjacent to a drainage ditch which is mostly culverted but opens up close to the coast within a golf course to the east and then enters Dublin bay (Figure 3.5). This stream and its connected pathways were also considered within the ZOI.



Figure 3.5 Map showing connectivity of adjacent stream to Dublin Bay.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Most of this stream is culverted

by CAAS for Dún Laoghaire Rathdown County Council

### **3.2.4 DESIGNATED AREAS**

In accordance with the European Commission Methodological Guidance (EC, 2001), a list of European Designated Sites that can be potentially affected by the works has been compiled. A dedicated Appropriate Assessment Screening, reviewing all European sites within the zone of influence of the project, was undertaken. A review of the conservation objectives and qualifying interests of these sites was undertaken in order to identify what habitats and/or species could be vulnerable to risk of impact from the proposed masterplan. This was done by assessing whether any source receptor links existed between the qualifying interests of the designated sites and the proposed site.

When assessing ecological impacts, the CIEEM Guideline recommend a 15km zone of influence as an adequate buffer for effects. Due to the characteristics of the project, all other Natura 2000 sites and pNHA/NHA sites beyond threshold distances of 15km are considered to be of sufficient distance from the proposed site, that no significant effects could be caused either directly or indirectly or in combination with other plans or projects to their interest features. Any impacts caused by the Glenamuck Park development have no valid impact pathway to transfer along to reach any of the receptor interest features. These sites are 'screened out' and not considered further.

In addition to examining European sites, NHAs and pNHA have been considered. Although NHAs and pNHAs do not form part of the Natura 2000 Network, they often provide an important supporting role to the network, particularly when it comes to fauna species which often do not obey site boundaries. There are however, NHAs and pNHAs that are designated for features that are not important at an international level and thus may not interact with the Natura 2000 network.

A stand-alone Screening Report, submitted separately to this assessment, expands on the potentially affected designated sites and their conservation objectives in more detail.

Appendix I provides a list of all of the designated sites considered within the assessment arranged by distance from the proposed project which are assessed as part of this report. Figure 3.6 and Figure 3.7 display the designated sites within a 15km radius buffer of the proposed project. The proposed site has no hydrological pathways connecting it to the nearby Booterstown pNHA, except through the marine environment. Indirect hydrological pathways between 2.5km to Natura 2000 sites within Dublin bay are identified, no other connectivity is observed within the 15km buffer zone considered in the accompanying AA Screening report.



Figure 3.6 European sites within 15km of the proposed development boundary<sup>7</sup>



Figure 3.7 Natural Heritage sites within 15km of the proposed development boundary<sup>8</sup>

<sup>&</sup>lt;sup>7</sup> Source: NPWS (datasets downloaded 29th March 2021)

<sup>&</sup>lt;sup>8</sup> Source: NPWS (datasets downloaded 28th March 2021)

### **3.2.5 RECORDS OF PROTECTED, RARE OR OTHER NOTABLE FLORA AND FAUNA** SPECIES

The digital database of the National Biodiversity Data Centre (NBDC) was consulted to assess known records of rare, protected and invasive species that occur in the surrounding landscape. The collation of this information, as well as examination of aerial photographs allowed areas of potential ecological importance to be highlighted prior to field survey work. A search was undertaken of records of Red Data Book and Protected species held by the National Biological Data Centre Database. A list of the rare and/or protected species from the 10km x 10km grid square occupied by the study area (O12) are listed in Appendix II (NBDC data, accessed: 28<sup>th</sup> March 2021).

#### 3.2.5.1 Invasive Flora Species

Publicly available NBDC data was accessed to identify invasive species in the hectad in which the proposed site is located (O12). Seven of the flora species and five of the fauna species listed in Appendix II are subject to restrictions (Third Schedule) under Regulation 49 of the European Communities (Birds and Natural Habitats) Regulations, 2011.

### **3.2.6 FIELD SURVEY RESULTS**

#### 3.2.6.1 Habitats and Flora

No Annex I habitats were found on site; the full habitat map can be seen below. The site is a brownfield site at the entranceway to an existing residential estate. The ground is compacted cobble of disused land that has been recolonised by species such as broad-leafed dock, ribwort plantain and other common species such as herb Robert. The habitat classification identified it to be Built Infrastructure and other hard surfaces mixed with recolonised bare ground (BL3/ED3). There were small stands of planted hedges which were maintained through cutting as they had a square augmented shape for full species list see Appendix III.

The only invasive species identified on site was Himalayan Knotweed (*Persicaria wallichii*) which is an invasive species under Regulation (EU) 1143/2014 on invasive alien species (the IAS Regulation); specifically, Regulation 49<sup>9</sup>. Hill et al. (2009)<sup>10</sup> have rated the dispersal potential of *P. wallichii* as 'high risk'. The species is highly fecund, can easily disperse by active or passive means over distances of more than 1 km per year and can initiate new populations. Means of dispersal include wind, water, animal movements, translocation by humans or accidental transport by human agency. Therefore, control measures are required.

<sup>&</sup>lt;sup>9</sup> Prohibition on introduction and dispersal of certain species; listed in Schedule 3.

<sup>&</sup>lt;sup>10</sup> Hill MO; Beckmann BC; Bishop JDD; Fletcher MR; Lear DB; Marchant JH; Maskell LC; Noble DG; Rehfisch MM; Roy HE; Roy S; Sewell J, 2009. Developing an indicator of the abundance, extent and impact of invasive non-native species (Final report). London, UK: DEFRA, 49 pp.

http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16063



Figure 3.8 Invasive alien species recorded on site



Figure 3.9 Habitat map of the proposed site

#### Fauna Mammals

#### Non-volant mammals

The 'habitats' on site are disused artificial surfaces with problematic species within. Therefore, there are no resources on site that would support any mammal species. No signs of any mammal activity were observed.

#### Bats

No roosts or potential roost features were identified on site. There were no cracks or crevices identified in any of the trees adjacent to the site. A bat activity survey on the evening of the 28<sup>th</sup> identified soprano pipistrelles commuting along the roadway (main Roebuck road) however, only 1 bat pass was recorded. The site has negligible bat foraging potential due to the brownfield nature of the site.

#### Birds

All of the trees present adjacent to the site have high potential for nesting breeding birds. There were no nests identified in the managed hedgerow within the site. The treeline on the far side of the stream has higher potential for breeding birds as the trees across the road along the disused garage structure were primarily conifer trees which are less favourable to passerine species likely to be within the area.

A bird breeding bird assessment identified the following species within the area:

Species	Scientific Name	Heard	Seen
Blue tit	Cyanistes caeruleus	Y	Y
Great tit	Parus major	Y	Y
Common chaffinch	Fringilla coelebs	Y	Y
Robin	Erithacus rubecula	Y	Y
Blackbird	Turdus merula	Y	Y
Wood Pidgeon	Columba palumbus	Y	Y

#### Table 2 Bird species recorded on site during a bird point count and treeline walk survey<sup>11</sup>

The proposed project may have short term, low levels of disturbance to these species during construction phase (via noise and air quality disruption).

#### **Protected Fish, Amphibians & Reptiles**

There were no aquatic habitats within the redline boundary and no suitable habitats identified for amphibians or reptiles. The site is adjoined by a stream which is culverted at multiple stages which limits its potential to support amphibian species.

### **3.2.7 SUMMARY OF ECOLOGICAL EVALUATION AND RECOMMENDATIONS**

Overall, the site of the proposed project currently has no local importance in terms of ecological value. This is a brownfield site with invasive problematic species present and hard surfaced areas. The trees adjoining the site are the only ecological feature of any interest. There are no important features identified within the redline boundary.

The proposed project potential for short term impacts to bird populations but of very low magnitude. Construction phase dust has potential to enter the freshwater drainage channel adjoining the site, which has limited ecological value; however, best practice measures should be implemented to minimise any hydrological interactions for the local invertebrate populations. There is potential for the proposed works to cause the spread of Himalayan Knotweed; therefore, control measures must be put in place.

<sup>&</sup>lt;sup>11</sup> 28<sup>th</sup> March 2021

# **4 POTENTIAL IMPACTS**

Based on the baseline ecological environment and the extent and characteristics of the proposed masterplan the following potential impacts have been identified:

- 1. Augmentation of existing habitats, as well as the potential removal of trees;
- 2. Spread of invasive species;
- 3. Construction and earthworks; and
- 4. Noise and vibration.

These 4 potential impacts are addressed below:

1. Augmentation of existing habitats, as well as the potential removal of trees;

The removal of vegetation on site has potential to negatively impact breeding bird populations, however there were no breeding birds identified within the redline boundary. Therefore, the risk to breeding birds is primarily due to disturbance effects in the nearby area.

2. Invasive species;

Himalayan Knotweed identified on site which could be spread to other areas up to 1km away if incorrectly managed.

- Construction and Earthworks;
  Potential interactions with site run off entering the adjoining drainage ditch.
- 4. Noise/vibration

The construction phase and movement of heavy vehicles across the site could cause localised disturbance of breeding birds that may use the trees around the site area. The construction phase is small scale temporary and therefore there is no significant impact identified in this regard.

An assessment of the project detail (see associated project material for details or section 3 for overview) indicates the potential impacts to biodiversity are predominantly associated with construction phase works, which are temporary/short term. The only impact of note is the potential for the spread of invasive species.

### **4.1.1 POTENTIAL IMPACTS ON DESIGNATED SITES**

The AA Screening Report sets out the likelihood and significance of any potential impacts on European designated sites. There are no significant adverse effects foreseen to be likely to affect the of any European sites. There are no NHAs within the zone of influence of the project.

The localised nature of the potential effects arising from the proposed project, and the absence of direct hydrological pathways, ensure there will be no interaction with any of the NHAs, SACs or SPAs considered in the assessment, that are listed in Appendix I. None of the proposed characteristics of the project will impose additional threats to this site due to the scale, temporary and nature of the construction and operational phase elements of the project, and the distances identified.

# **5 MITIGATION MEASURES / MONITORING**

The proposed site has been identified to have an overall low local ecological importance due to the brownfield nature of the site and problematic species identified.

The implementation of the project is likely to spread Himalayan knotweed if not controlled, and there is potential for small scale disturbance effects to breeding birds in the wider area. Furthermore, there is potential for small scale temporary interactions with hydrological condition of the adjacent drainage ditch which should be avoided where possible. Therefore, the following mitigation measures have been devised:

- No vegetation will be removed during the breeding bird season (1<sup>st</sup> March to the 31<sup>st</sup> of August); where it is necessary to remove vegetation within this time period a project specific derogation licence will be sought from the NPWS.
- An invasive species management plan is required for the site to focus on the safe removal of Himalayan Knotweed:
  - ✓ All incidences of the plant are removed (map of location provided)
  - ✓ Timing of works will be as brief as possible to minimise multiple interventions increasing the risk of spread.
  - Dust and debris control measures be implemented to ensure no seed dispersal occurs;
  - $\checkmark$  All strands of the plant are removed and destroyed appropriately.
  - All method statements must be agreed and signed off by a suitably qualified individual; and
  - ✓ An Ecological Clerk of Works will be appointed.
- Best practice environment management and SUDS processes will be followed to minimise potential disturbance effects to breeding birds and to ensure hydrological interactions are minimised.

The absence of the application of the above mitigation measures would render the project having the potential to have significant adverse effects on the surrounding environment through the potential spread of invasive species. It is thus recommended to implement these measures as part of the proposed project to avoid potential impacts to the ecological integrity of the site.

## **5.1 CUMULATIVE IMPACTS**

Plans of relevance in the context of this proposal include:

- Dun Laoghaire Rathdown County Development Plan 2016 -2022;
- Goatstown Local Area Plan (within 1km of subject lands); and
- Transport Strategy for the Greater Dublin Area 2016-2035.

A review of the DLR Co. Co. planning database for projects within the scheme area (200m radius from the site redline boundary) over the past 5 years identified that the projects within the area are small scale works predominantly relating to the alterations of existing structures. However, two stand-alone large housing developments have been granted permission within 200m of the site in the last 5 years:

The largest of these projects was identified to be D18A/0148, D19A/0619 and D17A/0684 which are developments consisting of change of use applications and modification to existing infrastructures, or upgrades to pitch facilities. The other projects identified relate predominantly to change of use or facade changes applications as well as small scale extension works and related projects (see table below). As the proposed development is not directly connected to any European site, taking into account the characteristics and scale, it is not foreseen that it will have any significant adverse effects on European sites cumulative effects with the aforementioned projects.

Project Code	Status	Project Area (sq m)	Possible significant effects from plan or project	Is there a risk of cumulative effects	Possible Significant cumulative effects
D18A/014 8	Grant Permission	47,705	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D19A/061 9	Grant Permission	47,631	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D17A/068 4	Grant Permission	13,430	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D18A/052 7	Grant Permission	7,256	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D19A/016 2	Grant Permission	5,266	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D15A/082 8	Grant Permission	3,904	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D18A/110 3	Grant Permission	2,379	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No

# Table 3.2 Local planning applications within the receiving environment of the proposed development

Project Code	Status	Project Area (sq m)	Possible significant effects from plan or project	Is there a risk of cumulative effects	Possible Significant cumulative effects
D19B/026 2	Grant Permission	2,296	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D20A/010 3	Grant Permission	1,810	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16B/032 0	Grant Permission	1,604	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16B/024 6	Grant Permission	1,247	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D18B/015 1	Grant Permission	1,210	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16B/051 2	Grant Permission	1,209	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16B/018 7	Grant Permission	1,183	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No

Project Code	Status	Project Area (sq m)	Possible significant effects from plan or project	Is there a risk of cumulative effects	Possible Significant cumulative effects
D20B/009 6	Grant Permission	1,164	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16B/011 8	Grant Permission	1,123	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D20A/043 8	Grant Permission For Retention	1,110	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D18A/061 2	Grant Permission	1,110	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D17A/060 0	Grant Permission	1,013	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D20B/003 8	Grant Permission	903	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D17B/031 0	Grant Permission	847	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No

Project Code	Status	Project Area (sq m)	Possible significant effects from plan or project	Is there a risk of cumulative effects	Possible Significant cumulative effects
D19B/028 8	Grant Permission	839	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D20B/004 3	Grant Permission For Retention	838	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16A/024 3	Grant Permission	834	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D20A/042 3	Grant Permission	819	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D17A/030 8	Grant Permission	643	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16A/036 5	Grant Permission	641	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No
D16A/001 6	Grant Permission	301	There are indirect pathways for effects from the site. Both developments are small scale with temporary construction phase effects. Given the distances between the receiving environment and the nearest European site there are no cumulative effects identified that are likely to have significant effects.	No	No

# **6 RESIDUAL IMPACTS**

The site is a brownfield site with problematic species present. Given the successful implementation of the mitigation measures there are no significant residual impacts identified. The operational phase will be consistent with the landuse of the existing site context and the removal of the invasive species identified on site will be beneficial to the receiving environment.