

# Rock of Dunamase Car Park, Co. Laois

## AA Screening Draft Report

prepared for:

**Laois County Council**  
**Aras an Chontae**  
**Portlaoise**  
**Co Laois**

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## Contract

This report describes work commissioned by Laois County Council, by email to Michael O'Donoghue from Dom Reddin on 10/08/22. Dominic Tilley of JBA Consulting carried out this work.

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## Abbreviations

AA	Appropriate Assessment
CJEU	Court of Justice of the European Union
CIEEM	Chartered Institute of Ecology and Environmental Management
DEHLG	Department of Environment, Heritage and Local Government
DHLGH	Department of Housing, Local Government, and Heritage
EC	European Communities
EPA	Environmental Protection Agency
EU	European Union
GSI	Geological Survey Ireland
IROPI	Imperative Reasons of Over-riding Public Interest
NBDC	National Biodiversity Data Centre
NPWS	National Parks and Wildlife Service
OPR	Office of the Planning Regulator
QI	Qualifying Interest
SAC	Special Area of Conservation
SPA	Special Protection Area
WFD	Water Framework Directive
Zol	Zone of Influence

# 1. Introduction

## 1.1 Background

JBA Consulting Engineers and Scientists Ltd. (hereafter JBA) has been commissioned by Laois County Council to prepare an Appropriate Assessment Screening Report for the proposed installation of a car park at the Rock of Dunamase.

The proposed scheme consists of:

- the installation of a 48-space car park
- Widening of existing access from the site to the L6831 on the Eastern side of the plot
- Widening of L6831
- Installation of an attenuation pond to the north of the car park
- Creation of 2 no. picnic facilities
- Re-surfacing of access road to Rock of Dunamase

## 1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment:

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

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

*“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

*Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”*



The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of *inter alia* the European Communities (Birds and Natural Habitats) Regulations 2011-2015 (S.I. No. 477 / 2011) as amended.

### 1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the NPWS and Planning Divisions of the Department of Environment, Heritage and Local Government (DEHLG) (DEHLG, 2009). Office of the Planning Regulator (OPR) produced a Practice Note in 2021, PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021). These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1.

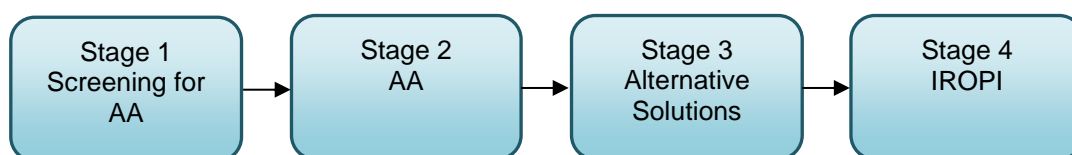


Figure 1-1: The Appropriate Assessment Process (from: Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, DEHLG, 2009).

#### 1.3.1 Stage 1 - Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

- whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation (Natura 2000 site)
- if it is likely to have a significant adverse effect on the European designated site, either individually or in combination with other plans or projects.

For those sites where, potential adverse impacts are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse impact on the integrity of a European designated site, in view of the site's conservation objectives (i.e., the process proceeds to Stage 2).

#### 1.3.2 Stage 2 - AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect impacts of them on the integrity and interest features of the European designated site(s), alone and in combination with other plans and projects, taking into account the site's structure, function, and conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, then alternative solutions will need to be considered (i.e., the process proceeds to Stage 3).

#### 1.3.3 Stage 3 - Alternative Solutions

Where adverse impacts on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the process proceeds to Stage 4.

#### 1.3.4 Stage 4 - IROPI

Where adverse impacts of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest (IROPI) can be demonstrated. In this case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant impacts

are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse impacts on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.

### 1.3.5 Court of Justice of the European Union (CJEU) Rulings

The CJEU has been asked to issue rulings on development plans, which are used to inform this assessment.

The CJEU issued a ruling on the consideration of avoidance and reduction measures as a result of *People over Wind, Peter Sweetman v Coillte Teoranta (C-323/17)* [2018]. This judgement stated that measures intended to reduce or avoid effects on a Natura 2000 site should only be considered within the framework of an Appropriate Assessment, and it is not permissible to take into account such measures at the screening stage. In practice, this means that any activities that are not integral to the project (i.e., the project could conceivably take place without them) and have the effect of avoiding or reducing an impact on a Natura 2000 site, cannot be considered at the screening stage.

The CJEU ruling in *Grace & Sweetman (C-164/17)* [2018] clarified the difference between avoidance and reduction (mitigation) measures and compensation. Measures intended to compensate for the negative effects of a project cannot be taken into account in the assessment of the implications of a project, and instead are considered under Article 6(4). This means that any project where an effect on the integrity of a Natura 2000 site remains and can only be offset by compensation, would need to proceed under Article 6(4), demonstrating “imperative reasons of overriding public interest”.

The judgements referred to as the *Dutch Nitrogen cases (C -293/17 and C -294/17)* [2018] have important implications for projects that could potentially impact on sites that are exceeding critical thresholds for input of damaging ammonia (but could also reasonably apply where other nutrients are impacting Natura 2000 sites). The judgements state that the use of thresholds to exclude project impacts is acceptable in principle, and that strategic plans can be used as mitigation but only with consideration of the certainty (or otherwise) of the outcomes of those strategic plans. It clarifies that where the status of a habitat type is already unfavourable the possibility of authorising activities which increase the problem is necessarily limited.

The CJEU ruling in the case of *Holohan v An Bord Pleanála (C-461/17)* [2018] also clarified the importance in Appropriate Assessment of taking into account habitat types and species outside the boundary of the Natura 2000 site where implications of the impacts on those habitat and species may impact the conservation objectives of the Natura 2000 site. In this assessment functionally linked and supporting habitat for species outside of Natura 2000 sites are assessed where they could potentially impact the conservation objectives of any screened in Natura 2000 sites.

## 1.4 Methodology

The Screening for Appropriate Assessment has been prepared with regards to the Birds and Habitats Directives, the European Communities (Birds and Natural Habitats) Regulations 2011-15 as amended and relevant jurisprudence of the EU and Irish courts. The following documents have also been used to provide guidance for the assessment:

- NPWS (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DEHLG, 2009).
- Office of the Planning Regulator (2021) OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021).
- European Communities (EC) (2018) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission, 2000).
- EC (2002) 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, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission et al., 2002).
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public



interest, compensatory measures, overall coherence, opinion of the commission. European Commission Management (European Commission, 2007).

- CIEEM (2018). Guidelines and checklist for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine., Second Ed. (Chartered Institute of Ecology and Environmental), updated 2022.
- EC (2021) Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. (European Commission, 2021)

#### 1.4.1 Desktop study

A desktop study was conducted of available published and unpublished information, along with a review of data available on the National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) web-based databases, to identify key habitats and species, including legally protected and species of conservation concern, that may be present within ecologically relevant distances from the project as explained below. A baseline habitat assessment was performed using satellite imagery of the site. The data sources below were consulted for the desktop study:

- Aerial photography available from [www.osi.ie](http://www.osi.ie) and Esri World Imagery.
- NPWS website ([www.npws.ie](http://www.npws.ie)) where Natura 2000 site synopses, data forms and conservation objectives were obtained along with Annex 1 habitat distribution data and status reports.
- River Basin Management Plans (DHLGH, 2022)
- NBDC Biodiversity Maps ([maps.biodiversityireland.ie](http://maps.biodiversityireland.ie))
- Catchments ([www.catchments.ie](http://www.catchments.ie))
- Environmental Protection Agency Maps (<https://gis.epa.ie/EPAMaps>)
- Geological Survey Ireland (GSI) ([www.gsi.ie](http://www.gsi.ie))
- GSI - Groundwater data viewer (<https://dcenr.maps.arcgis.com>)
- Planning Applications ([myplan.ie](http://myplan.ie))

Habitats were classified according to the national habitat classification system of Fossitt (2000). A habitat map and description of habitats present are detailed in Section 3.1.1.

#### 1.4.2 In-combination Assessment

The in-combination assessment followed the process for in-combination set out by the DTA Handbook (Tyldesley & Chapman, 2013). The in-combination impacts are considered only after the assessment of the project alone. If the result of this is that the project will have no effect at all on a European site, then no in-combination assessment would be necessary. However, where there is no adverse effect on site integrity, but some adverse effect an assessment of this adverse effect in-combination with other plans or projects is carried out. Other plans or projects were searched for using the National Planning Application Database, EIA portal and Myplan.ie databases all accessed online. If no other plans or projects are identified, then the assessment is complete. Where other plans or projects are identified then initially a review is made of its AA screening, or AA, and if the Competent Authority for the plan or project has made a final determination of no effect on the integrity of any European site, either alone or in-combination, this determination is used in this assessment. Where there is not a full AA, or the findings are unclear or out of date, the plan or project documentation is checked for credible evidence of real (not hypothetical) risk to a European site. Where these are identified then a detailed assessment is carried out. A summary of the approach is presented in Figure 1-2.

Potential sources of cumulative impacts were identified based on the ecology of valued ecological features only for features where this is a residual or non-significant impact. Potential sources of cumulative impacts were sought within area where there is the potential for a significant impact on relevant Natura sites identified in Section 4.

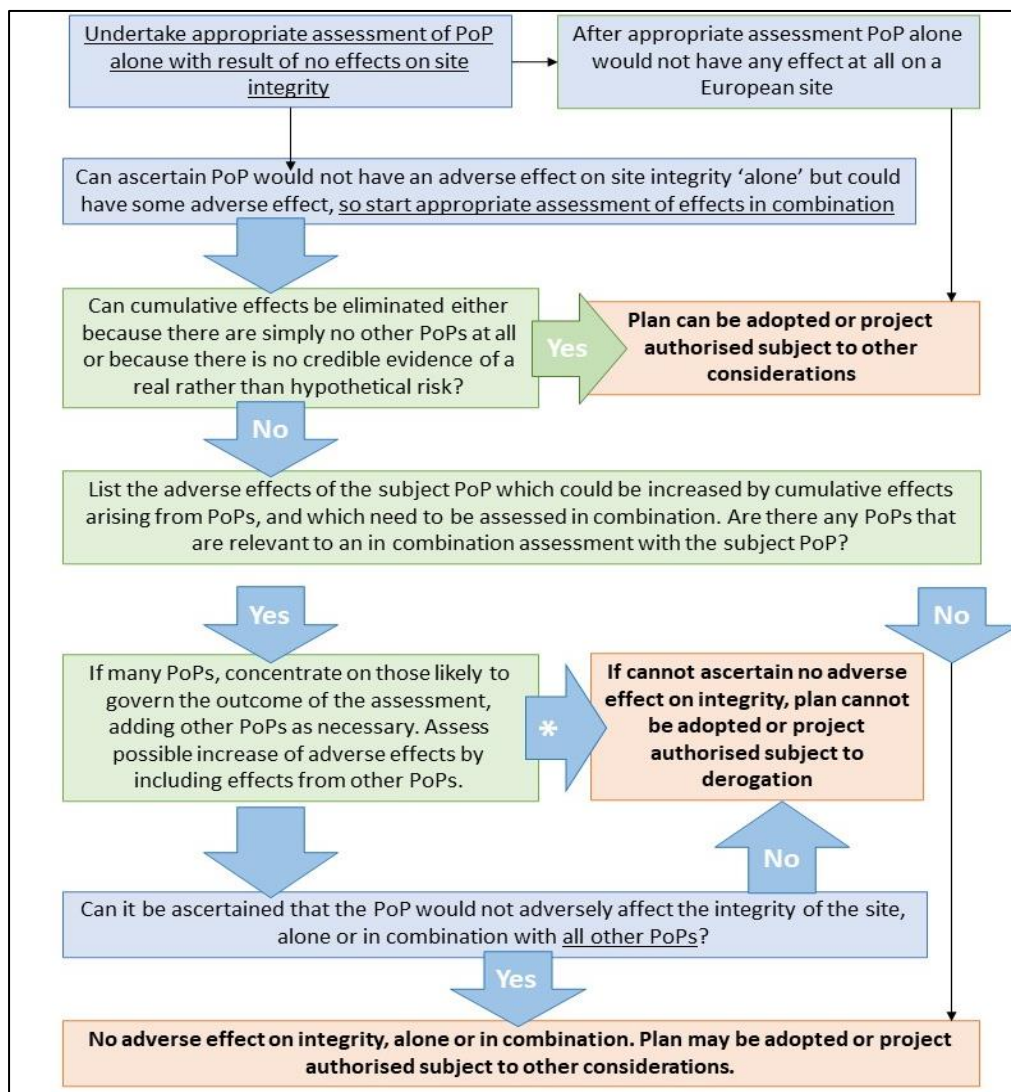


Figure 1-2: Flow diagram of process for in-combination assessment (modified from (Tyldesley & Chapman, 2013))

## 1.5 Limitations and constraints

The screening assessment necessarily relies on some assumptions, and it was inevitably subject to some limitations. These would not affect the conclusion, but the following points are recorded to ensure the basis of the assessment is clear:

- No field survey was carried out.
- This assessment is based on a desktop study. A field visit would be necessary to confirm this preliminary assessment.
- Information on the works and conditions on site are based on current knowledge at the time of writing. Changes to the site since this report was drafted cannot be accounted for. However, significant changes to the site are not foreseen to happen prior to the start of the project.
- This assessment is based on the methodology for proposed works as described in this report. Where changes to methodology occur, an ecologist will need to be consulted to determine if the changes are likely to alter the ecological impacts and would therefore need reassessment.
- Data from biological record centres or online databases is historical information, and datasets may be incomplete, inaccurate, or missing. The absence of records for an area may be due to the under recording in the area and not necessarily imply the absence of species. These records are therefore to be treated as minimum information available for the area.



## 2. Project Description

### 2.1 The 'Project'

The proposed project aims to build a new visitor car park for access to the Rock of Dunamase. This is not directly connected with, or necessary to the management of any Natura 2000 site but may have potential adverse impacts upon the Natura 2000 sites identified in Section 4. Therefore, the proposed project is subject to the requirements of the AA process.

### 2.2 Site location

The Proposed project is to be undertaken at Aghnahily, Dunamase, Co. Laois (Grid ref: M 24390 24334). Land use in the vicinity of the site is predominantly agricultural grassland and tillage with some woodland and isolated residential dwellings. The site is bordered by the L7830 to the North and less than 1 km away from the N80 to the South, accessed by the L6831 and the L7830 (Figure 2-1).



Figure 2-1: Site boundaries in red for the proposed site of works.

### 2.3 Proposed Works

The current project is for the provision of a new car park to serve the Rock of Dunamase, with site drainage, widening of existing roads, bunding, and landscaping.

### 2.4 Zone of Influence

The zone of influence extends to a conservative 15km buffer centred on the boundaries of the proposed development site. It is anticipated that the project will only have an impact on the site, however impacts relating to noise disturbance (1km), air pollution (10km), ground water (10km) surface water (15km), with an additional 2km from connecting transitional waters to coastal areas; and any supporting habitat

for SAC/SPA species (15km). The final 'Zone of Influence' can be a complex shape not easily defined by a simple distance figure, but in this way the assessment includes all relevant sites whilst avoiding unnecessary inclusion of other sites considered not to be relevant.

For demonstrative purposes a 5km, 10km and 15km buffer zone using the extent of the site limits forming an indicative Zol around the site. This should not be considered a hard boundary for potential impacts (Figure 2-2).

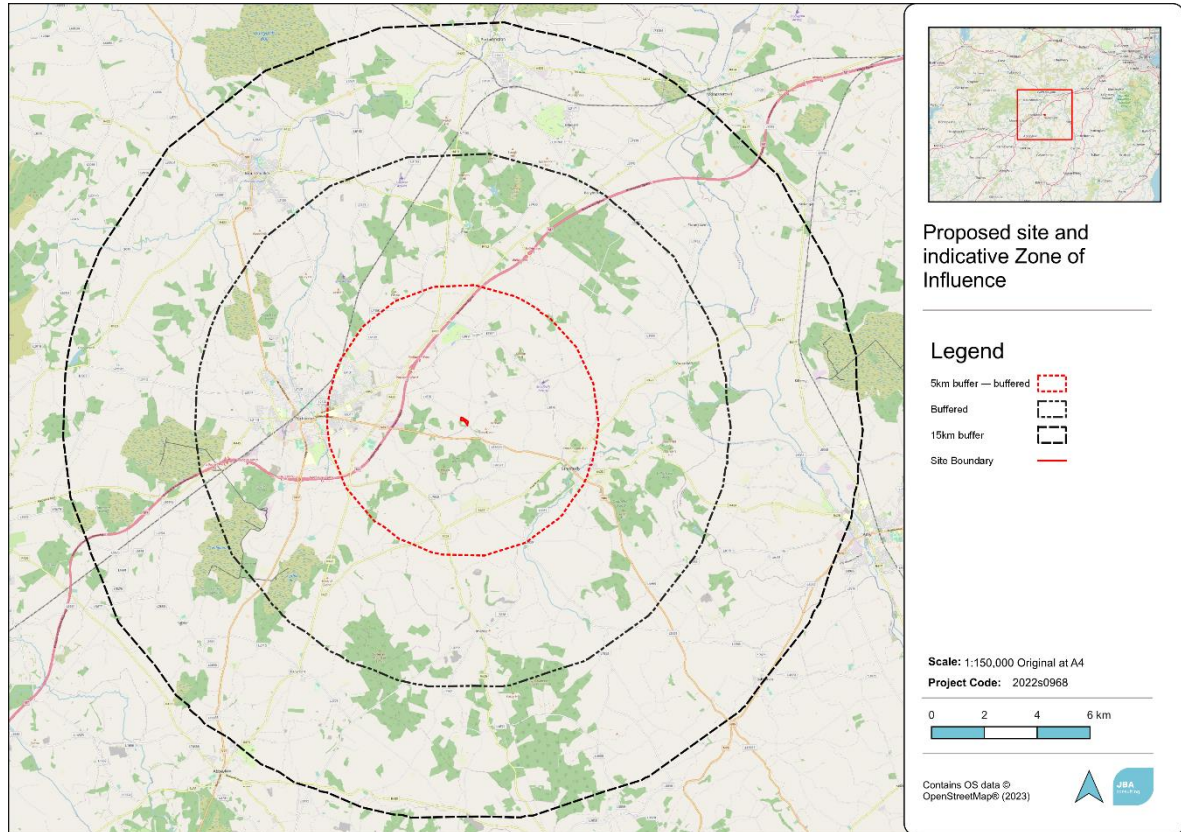


Figure 2-2: Extent of the 5, 10 and 15 km Zone of Influence around the development site.



### 3. Existing Environment

A desktop survey was carried out in 2023 assessing aerial imagery and online databases for an ecological overview of the site.

JBA Engineers visited the site on 7<sup>th</sup> September 2022, and these photos and information from the site visit has been incorporated into the desktop assessment.

#### 3.1 Desktop assessment of habitats

Aerial imagery was used to assess habitat composition on the site to be developed, adjacent plots, and some connected habitat of interest for any fauna present in the area. The site of interest comprises an agricultural grassland, bordered by a hedgerow of varying heights on three sides and woodland on the South, which is part of the Rock of Dunamase heritage site (Figure 3-1). The woodland area around the Rock of Dunamase is suspected to be an Oak-Ash-Hazel mix, connected to the hedgerows. These were classified (Table 3-1) and mapped (Figure 3-2) using Fossitt nomenclature (Fossitt, 2000). None of the presumed habitats present are part of the QIs of the nearby SAC's or SPA's.



Figure 3-1: Looking northeast from the rock of Dunamase, the site of proposed work (grassland in the foreground), bound by hedgerows, and surrounding agricultural land. Photo: JBA

Table 3-1 Habitats recorded at proposed the site and in the surrounding area.

Habitat	Fossitt Code
Arable land	BC1
Artificial surfaces - roads	BL3
Grassland - agricultural	GA1
Grassland – amenity (residential)	GA2
Hedgerow	WL1
Scrub	WS1
Woodland	WN2



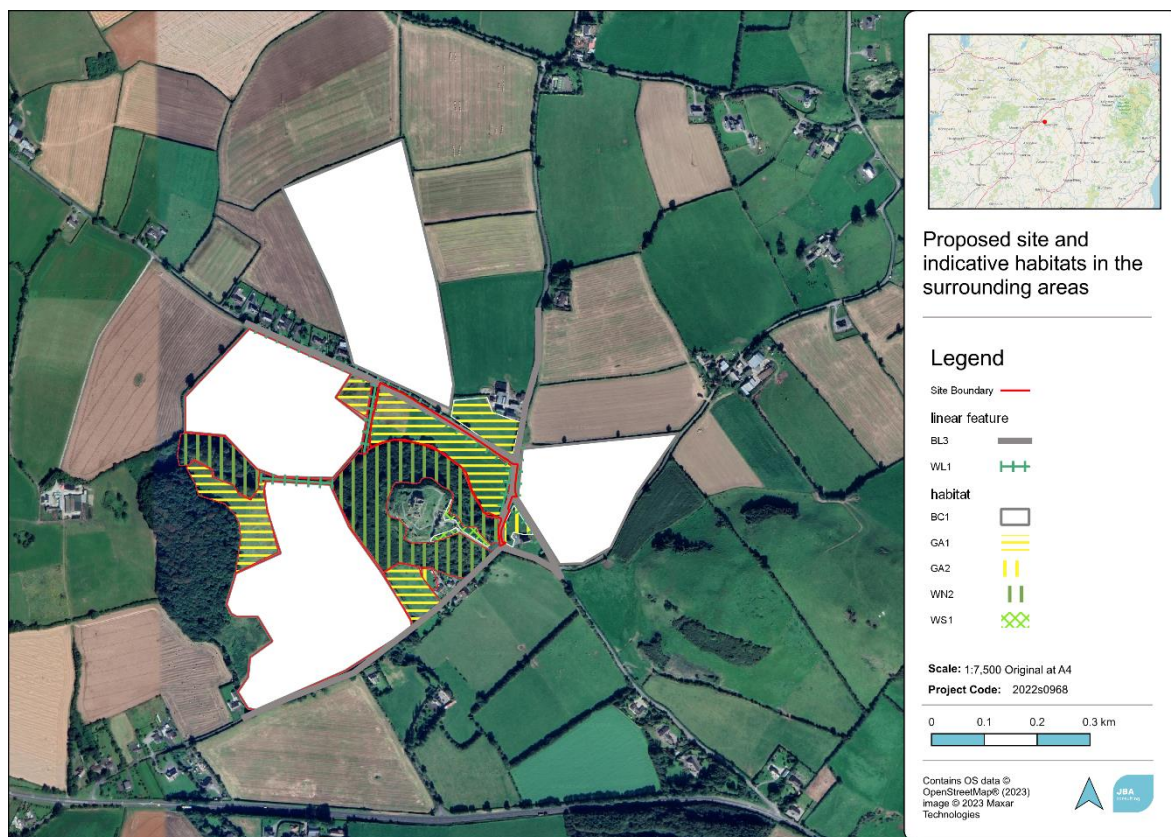


Figure 3-2: Habitats coded following Fossitt (2000) nomenclature recorded within the vicinity of the site.

### 3.1.1 Desktop assessment of habitats in wider area

#### Arable land BC1

Some arable land is located within proximity of the development site; these plots are bordered by hedgerows and treelines.

#### Artificial surfaces (BL3)

The plot is bordered to the North and East by a roadway, lined by hedgerows on either side. Hedging along the North is trimmed with the occasional tree. Hedges on the East are taller with mature trees than may provide bat roosting and foraging habitat.

#### Grassland GA1 and GA2

The development site is currently an improved grassland for agricultural use with further agricultural land across the road from the site and to the south of the Rock of Dunamase. Some amenity grassland is also present around the nearby dwellings. These grasslands could provide foraging habitat for the Irish Hare *Lepus timidus hibernicus* (Reid et al., 2010), as well as common farmland birds.

#### Hedgerow WL1

The proposed development site is surrounded by hedgerows and mature trees; the Northern boundary hedge looks predominantly trimmed and maintained at low level, with the occasional mature tree. The hedges on the western and eastern ends of the parcel present taller trees and seem less maintained. These provide a potential for bat roost and foraging areas. The vegetation along the southern boundary merges into the woodland plot surrounding the rock of Dunamase. Other fields in the area are mainly bordered by maintained hedges. These features may also provide habitat for Eurasian Badger *meles meles* (Smal, 1995).





Figure 3-3: Hedgerow and mature trees on the eastern margin of the plot. Photo JBA.

#### Scrub WS1

Some patches of scrub can be found on the slopes of the rock of Dunamase; these would provide extra cover for mammals and birds in the area.

#### Woodland WN1

Most of the woodland surrounding the site is located on the slopes of the rock of Dunamase. This seems to be an oak-ash-hazel woodland mix, with associated ground flora to be expected. These could provide cover for birds, bats, badgers, and other small mammals.



Figure 3-4: Wooded area on the slopes of the rock of Dunamase, on the southern side of the plot.  
Photo JBA

## 3.2 Protected Species

This section outlines the records of protected flora and fauna collated from the NBDC database, Conservation Objectives, and associated mapping of nearby Natura 2000 sites.



NBDC records present within a 5km radius of the proposed site and since 2011 are listed in Appendix 0. Whilst it is standard to keep records from the previous 10 years, a slightly longer time frame was used to account for the 2011 Bird Atlas data which provides more detail to the species composition. A custom polygon covering the proposed site and 5km buffer was queried for NBDC records (NBDC, 2023).

### 3.2.1 Flora

No protected, rare, or threatened plant species were recorded in the NBDC database for the area.

### 3.2.2 Mammals

Eurasian Badger, Eurasian Red Squirrel *Sciurus vulgaris*, West European Hedgehog *Erinaceus europaeus*, protected under the Wildlife Act, and Irish Hare and Pine Marten *Martes martes* (Annexes V, E.U. Habitats Directive), have been recorded within 5km of the proposed site. All these species are susceptible to be found living around the Rock of Dunamase as potential suitable habitat is present; limited woodland may hinder presence of Pine Marten (O'Mahony, 2017) and Red Squirrel (Lawton et al., 2020), with suitable habitat for Irish Hare (McGowan et al., 2019), Eurasian Badger (Smal, 1995) and West European Hedgehog (Haigh et al., 2012).

#### Bat suitability

Hedgerows and mature trees surrounding the plot may provide suitable roosting and foraging habitat for bats (Marnell et al., 2022).

### 3.2.3 Birds

A full list of bird species, covered by national and/or international legislation, recorded in the NBDC record query is available in Appendix A. Slieve Bloom Mountains SPA has Hen Harrier *Circus cyaneus* listed as a qualifying interest (Ballinger, 2022; NPWS, 2022). Hen Harrier were last reported in 2011 within 15km of the proposed site but the site is not prime habitat for those birds (O'Donoghue, 2020).

### 3.2.4 Amphibians and Reptiles

Common Frog *Rana temporaria* and Smooth Newt *Lissotriton vulgaris* have been recorded within 5 km of the proposed site. Despite the plastic behaviour of frogs (Reid et al., 2013, 2014), the site does not appear to present ideal frog or newt habitat as there is seemingly a lack of permanent water habitats (King, 2011).

### 3.2.5 Fish and aquatic fauna

No fish species have been recorded within the ZOI.

### 3.2.6 Invertebrates

No invertebrates of concern were recorded within the ZOI.

## 3.3 Invasive Species

A full list of invasive species recorded in the last ten years within the site at the Rock of Dunamase and the surrounding 5km buffer is in Appendix B. Two plant species, a single mammal species and a reptile listed under the Third Schedule of Regulation S.I. 477/2011 were recorded listed.

Table 3-2 NBDC Records of Invasive Species within the Rock of Dunamase area

Species name	Date of last record	Designation
<b>Flora</b>		
Japanese Knotweed <i>Reynoutria japonica</i>	27/07/2017	High Impact Invasive Species    Invasive Species >> Regulation S.I. 477 (Ireland)
Spanish Bluebell <i>Hyacinthoides hispanica</i>	17/04/2017	Invasive Species: Invasive Species    Invasive Species >> Regulation S.I. 477 (Ireland)
<b>Mammals</b>		
Eastern Grey Squirrel <i>Sciurus</i>	31/12/2011	High Impact Invasive Species

carolinensis		>> EU Regulation No. 1143/2014    Invasive Species >> Regulation S.I. 477 (Ireland)
<b>Reptiles</b>		
Red-eared <i>Terrapin Trachemys scripta</i>	16/06/2020	Medium Impact Invasive Species    EU Regulation No. 1143/2014

### 3.4 Elevation and slope

The site sits along the 150m contour line, with the land rising to the 175m contour line around the top of the rock of Dunamase. To the East, the ground rises above 200m on Slievebaun and Kiltale Hill, whilst Drysart Woods to the South sit above the 175m contour line (Figure 3-5). The slope of the site is in a general north to northwest direction, suggesting that water is most likely to move of site in that direction.

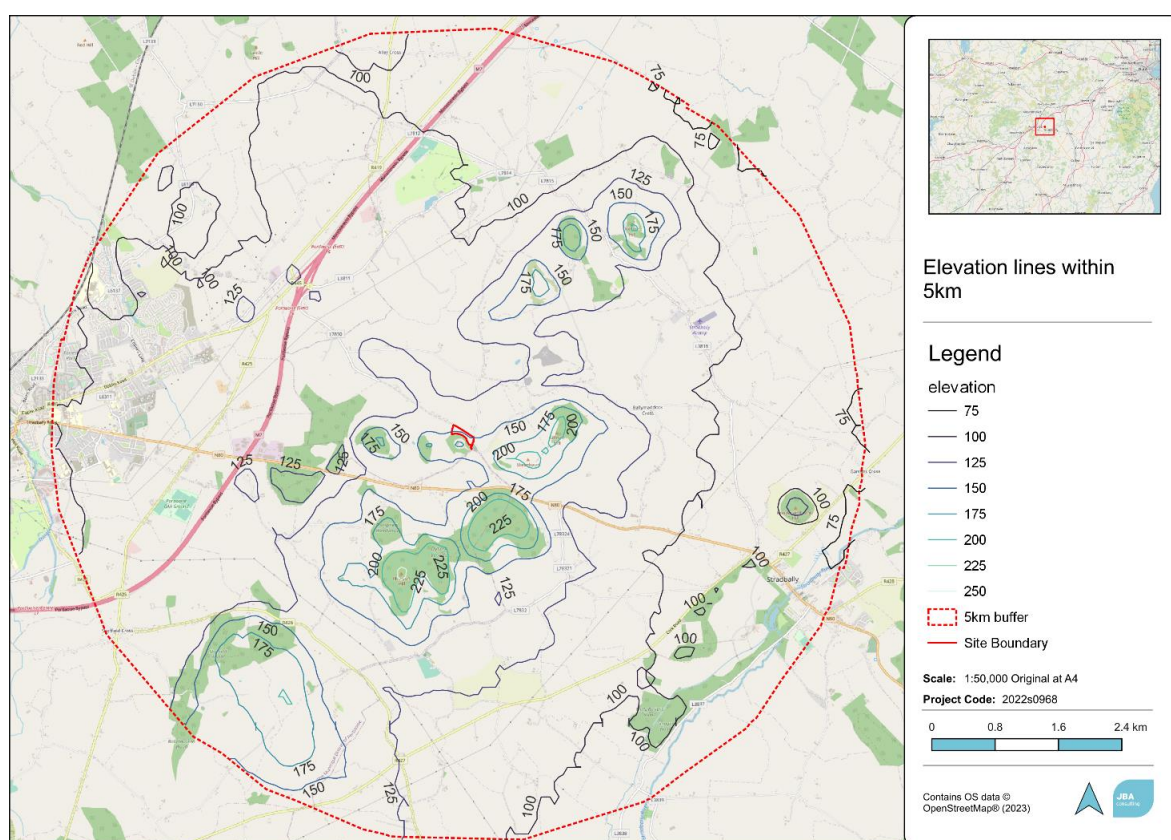


Figure 3-5 Elevation profile within 5km of the development site

### 3.5 Surface Waterbodies

The proposed works are within the Barrow River catchment area, with the 15km ZOI extending to the Nore river catchment in the southwest.

The nearest waterbody the Triogue\_020, approximately 3.2 km west southwest of the site. This stream is of poor ecological status, and a tributary to the Barrow. The topography of the site as well as current road network make it unlikely to be connected by surface waters.

The site lies in WFD Sub-basin DUNRALLY STREAM\_010, which lies approximately 3.9km away to the north. This sub-basin and the general terrain of the area indicates the movement of water from this site will move in a northerly direction into the Dunrally (Stream) IE\_SE\_14D050200 which is a tributary of the River Barrow. There is a potential surface water pathway to this stream.



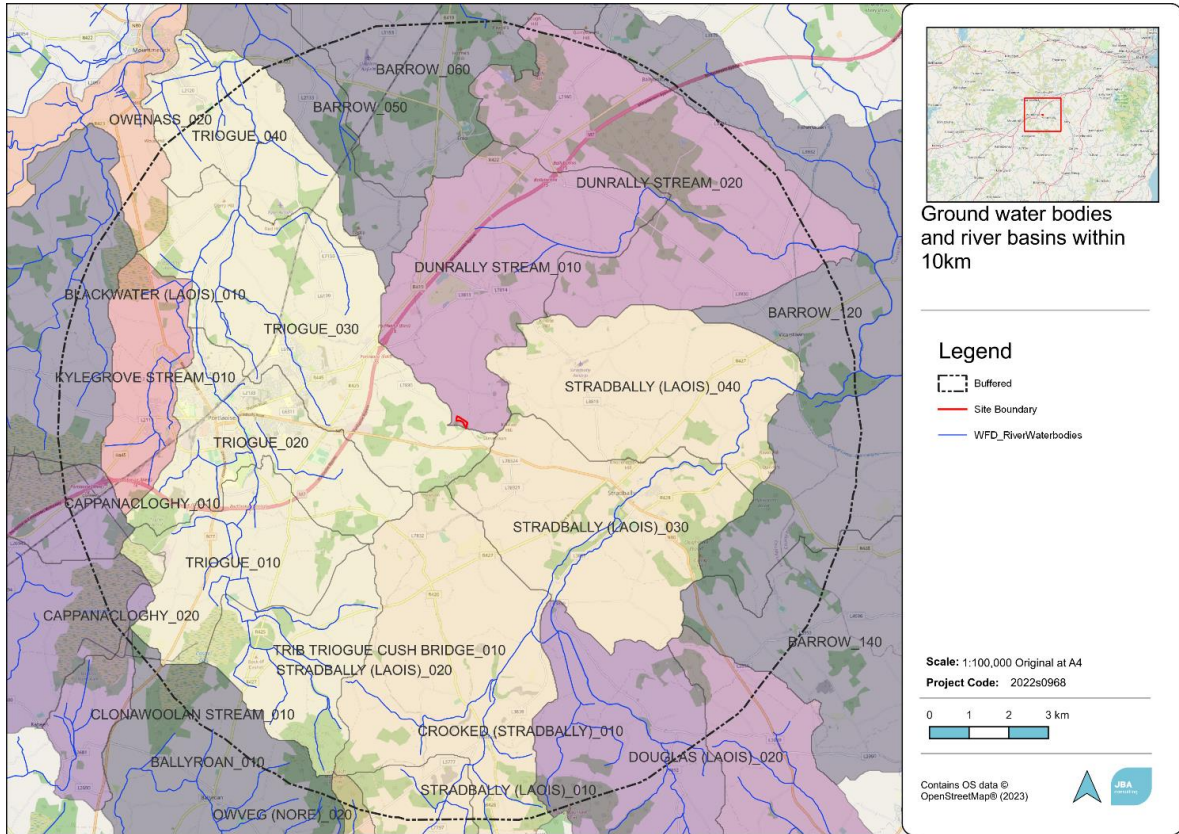


Figure 3-6: Surface waterbodies within 15 km of the proposed site, with the different sub catchments in the area as described by the EPA

### 3.6 Groundwater bodies

The proposed site lies in the ground waterbody Bagenalstown Upper (Figure 3-7). This is a regionally important karstified aquifer (type Rk). It is considered to be a major aquifer comprising water-bearing units of pure limestone and dolomitised limestone and Calp. The dolomitisation is not complete, thus some areas of undolomitized limestone may act as aquitards (Geological Survey Ireland, n.d.).

There is hydraulic continuity between the Barrow Valley sands and gravels and the underlying aquifer, with the flow regime in the aquifer, under natural conditions, severely restricted. Therefore, the aquifer will be full of water and circulation will be limited to the near surface zone. Under pumping conditions leakage will occur from the sands and gravels into the aquifer (Geological Survey Ireland, n.d.).

At the site, the groundwater vulnerability is described as 'Extreme' (Figure 3-8).



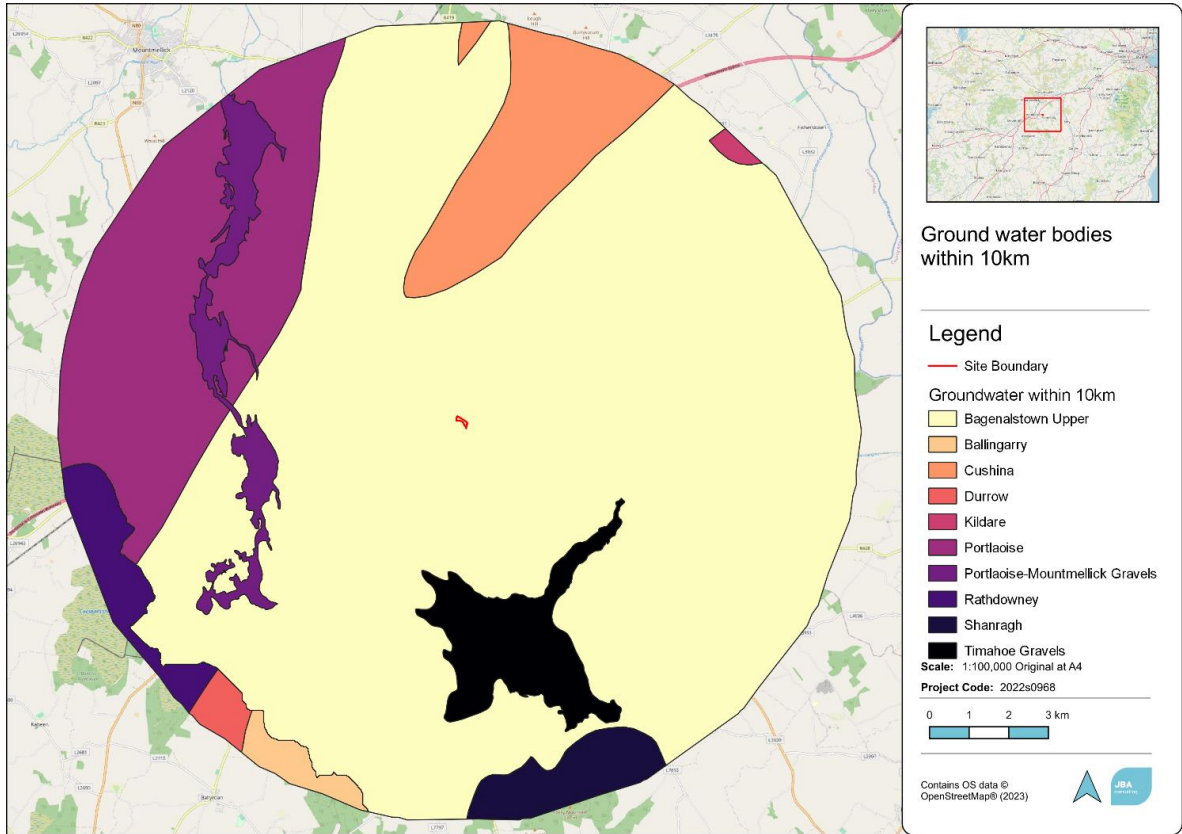


Figure 3-7 Groundwater bodies within 10 km of the site of development

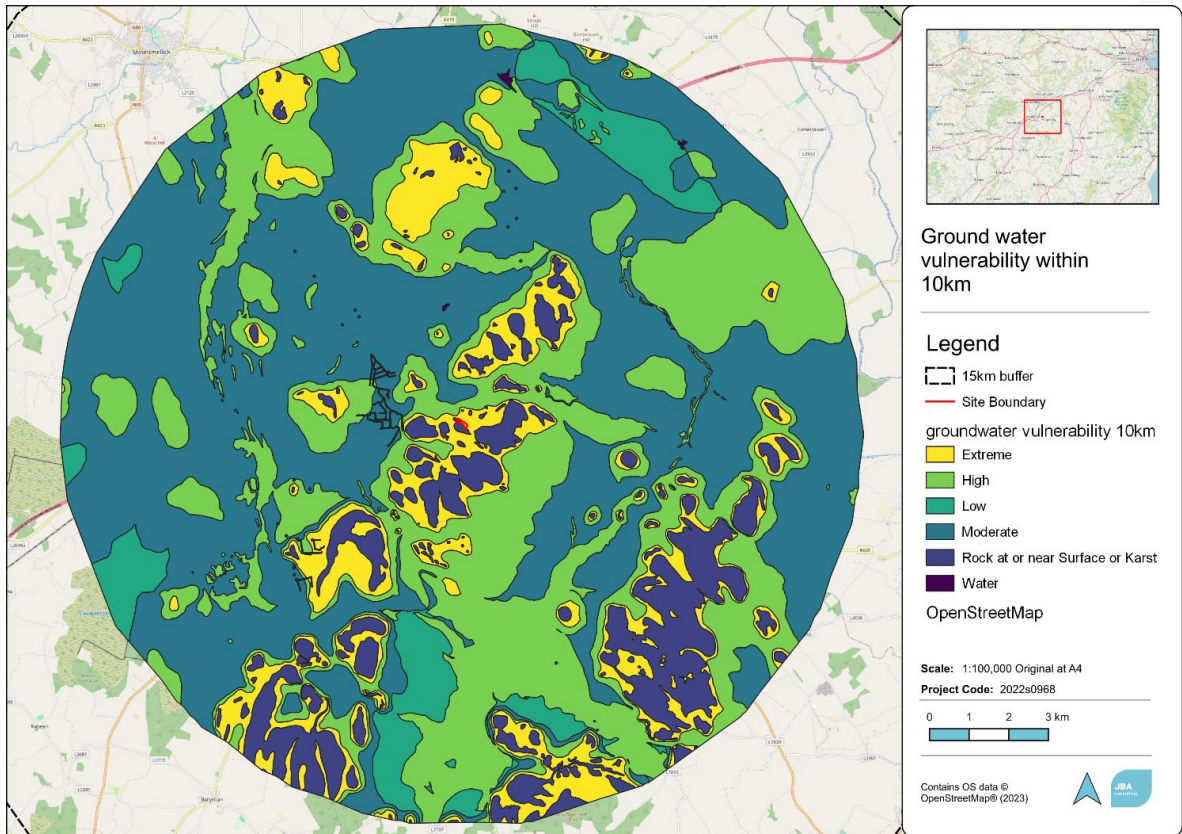


Figure 3-8 Groundwater vulnerability within 10km of the proposed development site.

## 4. Natura 2000 Sites

The DEHLG (2009) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area.
- Any Natura 2000 sites within the likely zone of impact of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects.
- Any Natura 2000 sites that are more than 15km from the plan or project area, but may potentially be impacted upon, for example, through a hydrological connection.

As the scale of proposed works are considered of 'Project' status, Natura 2000 sites within a 15km range of the proposed development were examined, and within a 15km range for those with a hydrological connection on the basis that there were no source-pathway-receptors identified outside these ranges.

The zone of influence extends to a conservative 15km buffer centred on the boundaries of the proposed development site. It is anticipated that the project will only have an impact on the site, however impacts relating to noise disturbance (1km), air pollution (5km), ground water (10km) surface water (15km), with an additional 2km from connecting transitional waters to coastal areas; and any supporting habitat for SAC/SPA species (15km). The final 'Zone of Influence' can be a complex shape not easily defined by a simple distance figure, but in this way the assessment includes all relevant sites whilst avoiding unnecessary inclusion of other sites considered not to be relevant.

For demonstrative purposes a 5km, 10km and 15km buffer zone using the extent of the site limits forming an indicative Zol around the site are used (Figure 4-1).

Within the 15km Zol, four Natura 2000 sites were recorded (Table 4-1), mapped in relation to the proposed site (Figure 4-1), with brief site descriptions, Qualifying Interests (QI) and potential relevant threats/pressures also described

Table 4-1 Natura 2000 sites located within the Zone of Influence (Zol) of the proposed development.

Natura 2000 site	Site Code	Approximate Distance from Site	Hydrological Distance from Site
River Barrow and River Nore SAC	002162	4.7 km	4.7 km and Groundwater body connection
Ballyprior Grassland SAC	002256	7.3 km	Groundwater body connection
Mountmellick SAC	002141	11.8 km	No hydrological connection
Slieve Bloom Mountains SPA	004160	14.1 km	No hydrological connection

There are no sites designated under the EU Habitats Directive and EU Birds Directive, i.e. SACs and SPAs, located within the footprint of the proposed development site. There are no designated sites within 1km relating to noise disturbance.

The proposed development site is not clearly connected via surface water pathway to any SAC or SPA, as there is no river nearby. It is likely that surface water will drain to local ditches or into the groundwater body, which will connect to the Dunrally (Stream) 3.9km to the north of the site. This river is a tributary of the River Barrow. The River Barrow is designated under the River Barrow and River Nore SAC.

The proposed development site lies in ground waterbody Bagenalstown Upper. The River Barrow and River Nore SAC and Ballyprior Grassland SAC are the European sites that lie within this groundwater body.

The River Barrow and River Nore SAC site lies within 5km ZOI of the site. Therefore, there is a potential pathway for impacts via air pathways.

Of the European Sites that occur within 15km of the development, further assessment is required for the following sites following analysis of the potential pathways for each site.

Surface water pathways, groundwater pathways, and air pathways:

- River Barrow and River Nore SAC

Only Groundwater pathways:

- Ballyprior Grassland SAC



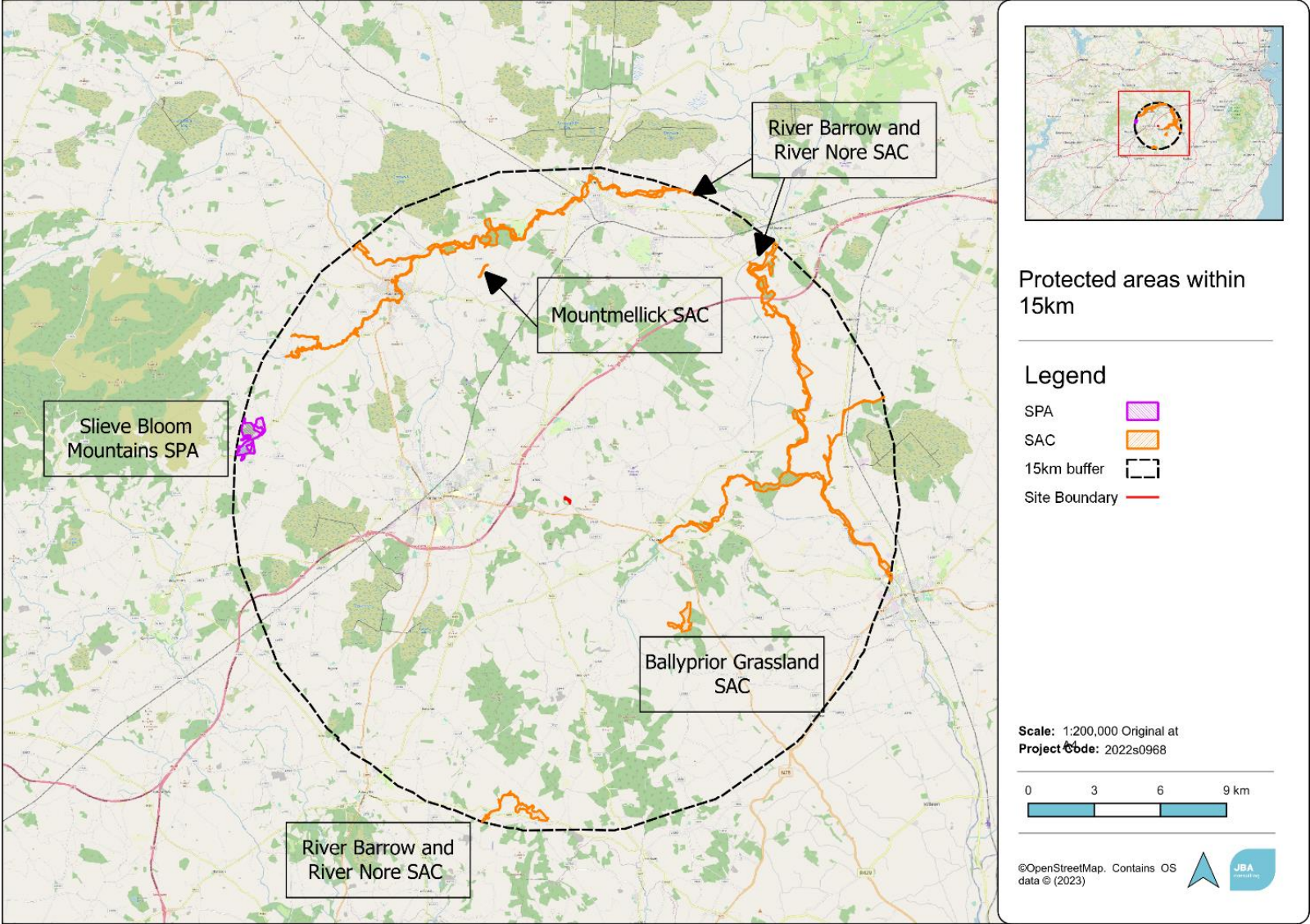


Figure 4-1 Protected areas within the extent of the zone of influence around the development site

Table 4-2: Site briefs; Qualifying Interests; and project-relevant threats /pressures and their impacts and sources in relation to the Natura 2000 sites within the 15km ZoL. \* denotes priority Annex I habitat

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
River Barrow and River Nore SAC 002162	The River Barrow and River Nore SAC cover the freshwater stretches of the Barrow and Nore River catchments as well as some intertidal and estuarine habitats in Waterford harbour. The SAC starts in the Slieve Bloom mountains, crossing eight counties before reaching the sea in Waterford Harbour. The upper reaches of both rivers pass through Old Red Sandstone before passing through a band of Carboniferous shales and sandstones. For a large part of its course, The Nore goes through limestone plains, as well as some Old Red Sandstone and over intrusive rocks poor in silica before flowing into the Barrow. The Barrow runs through limestone, Leinster Granite, and intrusive rocks poor in silica (NPWS, 2011)	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Reefs [1170] <i>Salicornia</i> and other annuals colonising mud and sand [1310] Atlantic salt meadows <i>Glauco-Puccinellietalia maritimae</i> [1330] Mediterranean salt meadows <i>Juncetalia maritimi</i> [1410] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitriche-Batrachion vegetation [3260] European dry heaths [4030] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] Petrifying springs with tufa formation <i>Cratoneurion</i> [7220]* Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> [91E0]* Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i> [1016] Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> [1029] White-clawed Crayfish <i>Austropotamobius pallipes</i> [1092] Sea Lamprey <i>Petromyzon marinus</i> [1095] Brook Lamprey <i>Lampetra planeri</i> [1096] River Lamprey <i>Lampetra fluviatilis</i> [1099] Twait Shad <i>Alosa fallax fallax</i> [1103] Salmon <i>Salmo salar</i> [1106]	Pollution to surface water / High impact (inside and outside)  human induced changes in hydraulic conditions / Medium impact (inside and outside)  removal of hedges and copses or scrub / Medium (inside)  invasive non-native species / Medium (inside)  (EEA, 2020)



Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source)
		<p>Otter <i>Lutra lutra</i> [1355]  <i>Trichomanes speciosum</i> (Killarney Fern) [1421]                      Nore Pearl Mussel <i>Margaritifera durrovensis</i> [1990]</p>	
Ballyprior Grassland SAC 002256	<p>The Ballyprior Grassland is an important example of orchid-rich calcareous grassland, with diverse flora and a rich myco-flora, indicative of low nutrient input and lack of disturbance. The rich flora diversity also includes species preferring deeper. The site also contains some ponds and on the western margins some scrub.</p> <p>The Irish Hare <i>Lepus timidus hibernicus</i> occurs in the site and is listed under the Wildlife Acts and Habitats Directive (92/43/EEC), Annex V. Ballyprior Grassland is surrounded by farmland, improved grassland, and some afforestation, leading to the loss of contiguous grassland habitat. (NPWS, 2021a)</p>	Orchid-rich Calcareous Grassland* [6210]	removal of hedges and copses or scrub / Medium (inside) (EEA, 2018a)
Mountmellick SAC 002141	<p>This is a disused stretch of the Grand Canal, situated between Dangan's Bridge and Skeagh Bridge. The habitat is predominantly fen-type vegetation, with Bulrush <i>Typha latifolia</i>, Reed Sweet-grass <i>Glyceria maxima</i> and Yellow Iris <i>Iris pseudacorus</i>. To the west, the land has been drained and is dominated by grassland habitat. The fen like habitat is important for the whorl snail <i>Vertigo moulinsiana</i> (NPWS, 2021b)</p>	Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i> [1016]	NA – threats to this SAC are not relevant to activities on the site of development (EEA, 2018b)
Slieve Bloom Mountains SPA 004160	<p>The Slieve Bloom Mountains SPA (NPWS 2022) sits on the border between Counties Offaly and Laois, running along a north-east/south-west aligned ridge for approximately 25 km. The mountains are of Old Red Sandstone, from which the river Nore and Barrow rise. The site is comprised of mountain blanket bog, and wet and dry heaths. Coniferous plantations, dominated by Sitka Spruce <i>Picea sitchensis</i> and Lodgepole Pine <i>Pinus contorta</i>, account for c. 60% of the site, with first and second rotation plantations. Both pre-thicket and post-thicket stands are present and substantial areas of clear-fell any one time. Rough grassland, with some wet areas and patches of scrub is used for hill farming. River valleys hold some deciduous woodland</p>	Hen Harrier <i>Circus cyaneus</i> [A082]	Roads, motorways / Low (inside) (EEA, 2018c)

## 5. Other Relevant Plans and Projects

### 5.1 Cumulative Effects

As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region that may induce cumulative impacts must also be considered at this stage.

The following projects or plans were identified as potential sources of cumulative impacts:

- Planning applications for individual dwellings

### 5.2 Plans

#### 5.2.1 Laois County Development Plan 2021-2027

The Laois County Development plan 2021-2027 came into effect on March 8<sup>th</sup>, 2022, and takes precedent on previous Local Area Plans, replacing the Laois County Development plan 2017-2023. The plan has been prepared in accordance with the provisions set out in the Planning and Development Act 2000 as amended (LCC, 2022).

The Development Plan sets out a framework for the sustainable spatial and physical development of County Laois, taking into consideration the conservation and protection of the built and natural environment, over the period of the Plan and beyond. Chapter 11 of the development plan covers the biodiversity and natural heritage aspects, with expressed aim of contributing towards their protection, conservation and management (LCC, 2022). These strategies are implemented within the legislative and policy context that Ireland has ratified, including the EU birds and habitats directives and the EU biodiversity strategy 2030, but also national and county biodiversity action plans.

#### 5.2.2 River Basin Management Plan for Ireland 2022-2027

The Water Framework Directive (Directive 2000/60/EC, 2000) requires that all waters, including surface and groundwater sources, are protected and that measures are put in place to ensure quality of these waters is restored to at least 'good' status or good potential by 2027 at the latest. The directive requires reporting of river basin management plans to assess the water bodies, their pressures, and relevant plans towards achieving good status. In implementing the river basin management plan, the objective is to ensure that natural waters are sustainably managed and that freshwater resources are protected so as to maintain and improve Ireland's water environment (DHLGH, 2022). In its latest version the management plan aims to restore the water quality of the river Barrow (EPA, 2021). Therefore, any development needs to take into consideration the aims and objectives of the management plan.

### 5.3 Other Projects

Planning applications in the vicinity of the rock of Dunamase which could act in-combination with the works at the site were extracted from national planning application dataset (DHLGH, 2023). Planning applications that have been granted permission within the last three years are considered. Applications for home extensions, internal alterations and retention are not considered.

Six planning applications within 2km of the site (Figure 5-1) were retained (Table 5-1), with none of them requiring Appropriate Assessment or Natura Impact Statements.

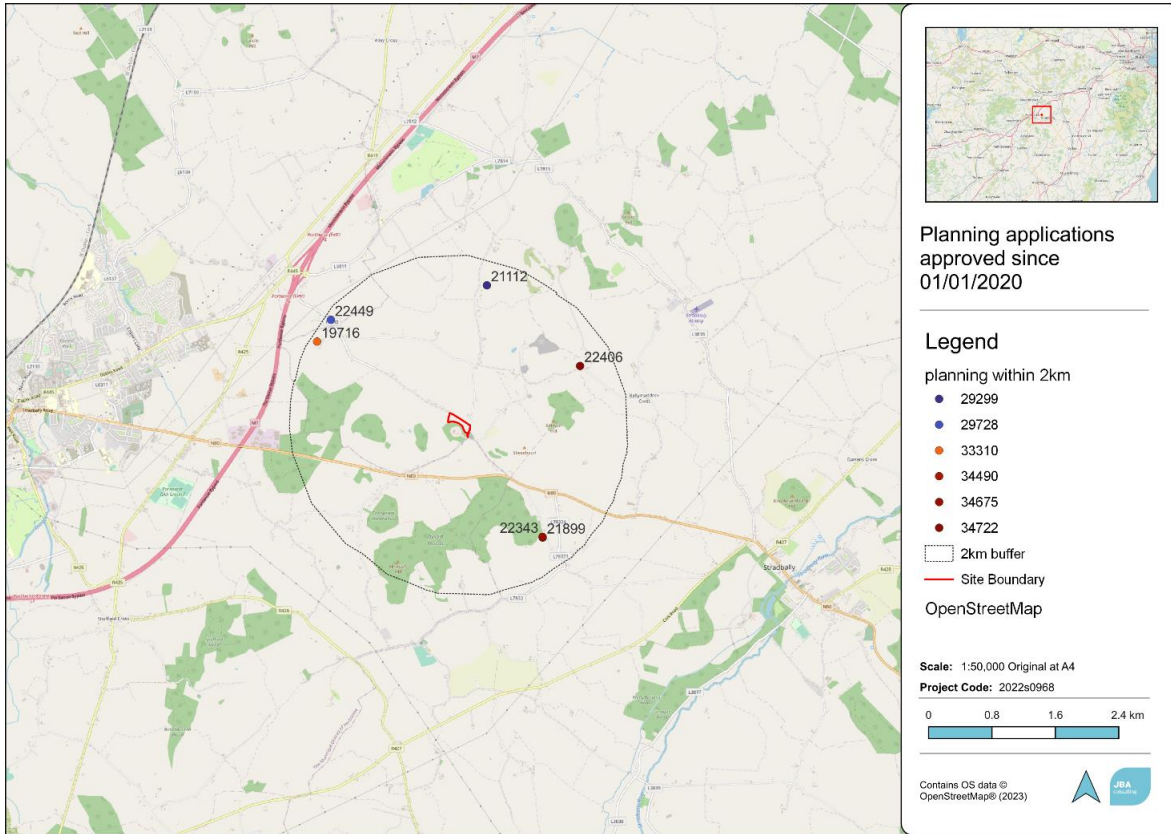


Figure 5-1: Planning applications granted within 2km of the site in the last 3 years

Table 5-1 Development projects within 2km of the site which were granted planning permission within the last 3 years. Data and summary information are extracted from the National Planning Applications database.

Planning Reference	Address	Application Status	Decision date	Summary of development	Supporting documentation
19716	Ballycarroll, Portlaoise	Conditional	05/06/2020	construct a new dwelling house and domestic garage, packaged wastewater treatment system and polishing filter together with new site entrance, ancillary site services and associated site works	No Appropriate Assessment, no Natura Impact Statement required
21112	Raheen, The Heath, Portlaoise	Conditional	05/08/2021	retention of existing entrance, permission to build dwelling house, domestic garage, septic tank treatment system and all associated site works	No Appropriate Assessment, no Natura Impact Statement required
21899	Grange Upper, Stradbally	Conditional	29/03/2022	construct a dwelling house, domestic garage, septic tank & percolation area, new entrance and all associated and necessary site works	No Appropriate Assessment, no Natura Impact Statement required
22343	Grange Upper, Stradbally	Conditional	23/08/2022	alter design of dwelling house, to alter site boundaries and to change location of dwelling house and domestic garage on site from that which was granted planning permission with 21/899 and all associated and necessary site works	No Appropriate Assessment, no Natura Impact Statement required
22406	Ballinlough, Stradbally	Conditional	26/08/2022	construct new dwelling house, septic tank and percolation area, new site entrance and all associated works	No Appropriate Assessment, no Natura Impact Statement required
22449	Ballydavis, Portlaoise, Co. Laois	Conditional	20/10/2022	convert existing garage to study for ancillary use of the house with new window to front façade and to construct a new domestic garage to rear of property and all associated site works	No Appropriate Assessment, no Natura Impact Statement required

## 6. Screening Assessment

### 6.1 Introduction

This screening exercise will focus on assessing the likely adverse effects of the project on the Natura 2000 sites identified in Section 4 above.

Table 6-1: Natura 2000 sites with approximate distance to site and watercourse connection

Natura 2000 site	Site Code	Approximate direct distance from site	Approximate distance via nearest watercourse
River Barrow and River Nore SAC	002162	4.7 km	14km and Groundwater body connection
Ballyprior Grassland SAC	002256	7.3 km	Groundwater body connection

This section identifies the potential impacts which may arise as result of the proposed project on these European Sites. It then goes on to identify how these impacts could potentially affect Natura 2000 sites listed above. The significance of potential impacts is also assessed, with any potential in-combination effects also identified.

### 6.2 Assessment Criteria

#### 6.2.1 Description of 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 sites

Potential adverse impacts that could cause a likely significant effect on the qualifying interests of the Natura 2000 sites, or the sites as a whole, during the construction and operational phases of the project, are considered using three main pathways: surface water, groundwater and land and air pathways.

Surface water pathways can result in impacts where material entering the surface water drainage are carried in this water to sites that are connected downstream and can therefore impact surface water bodies themselves, and surface water dependent species and habitats that rely on them.

Groundwater pathways can transmit impacts where there is contamination of water entering the groundwater body which is then discharged (sometimes over periods of several decades) and impacts groundwater dependent habitats and species that rely on them.

Land pathways are related to physical disturbance of habitats or species and generally only occur over short physical distances. Air pathways relate to the transport of material, generally dust and atmospheric pollution, via air movements that are subsequently deposited on habitats and species in or connected to the Natura 2000 sites.

The proposed project is not anticipated to impact on the qualifying interests of any of the identified SACs or SPAs. The rationale for excluding impacts via the main pathways is given in more detail in the following section.

#### 6.2.2 Surface Water Pathways

The site is located within the Durrally Stream subbasin, and therefore the area likely drains to the Durrally stream, approximately 4km to the North (Figure 6-1). This stream is a tributary of the River Barrow, and the River Barrow and River Nore SAC which is approximately a further 10km downstream (total 14 Km). From the general topography of the area, water runoff is likely to be in a general northern direction towards the Durrally Stream.

There are two small ponds located approximately 1km north northeast of the site, and 650m west southwest, with more ponds further afield (not mapped). These seem to be set in an agricultural surrounding and are not directly connected by surface waters.



Whilst there are no obvious direct connections between the site and the surrounding surface waters, there is also potential for a surface water pathway to exist via unmapped streams in the area and for drainage through ditches to ponds and/or through the mapped streams as part of the Dunrally Stream subbasin.

There is no clear surface water pathway, with only potential minor ditches which may drain 4km to the Dunrally Stream, and then a further 10km downstream (total 14 Km) to the River Barrow and River Nore SAC.

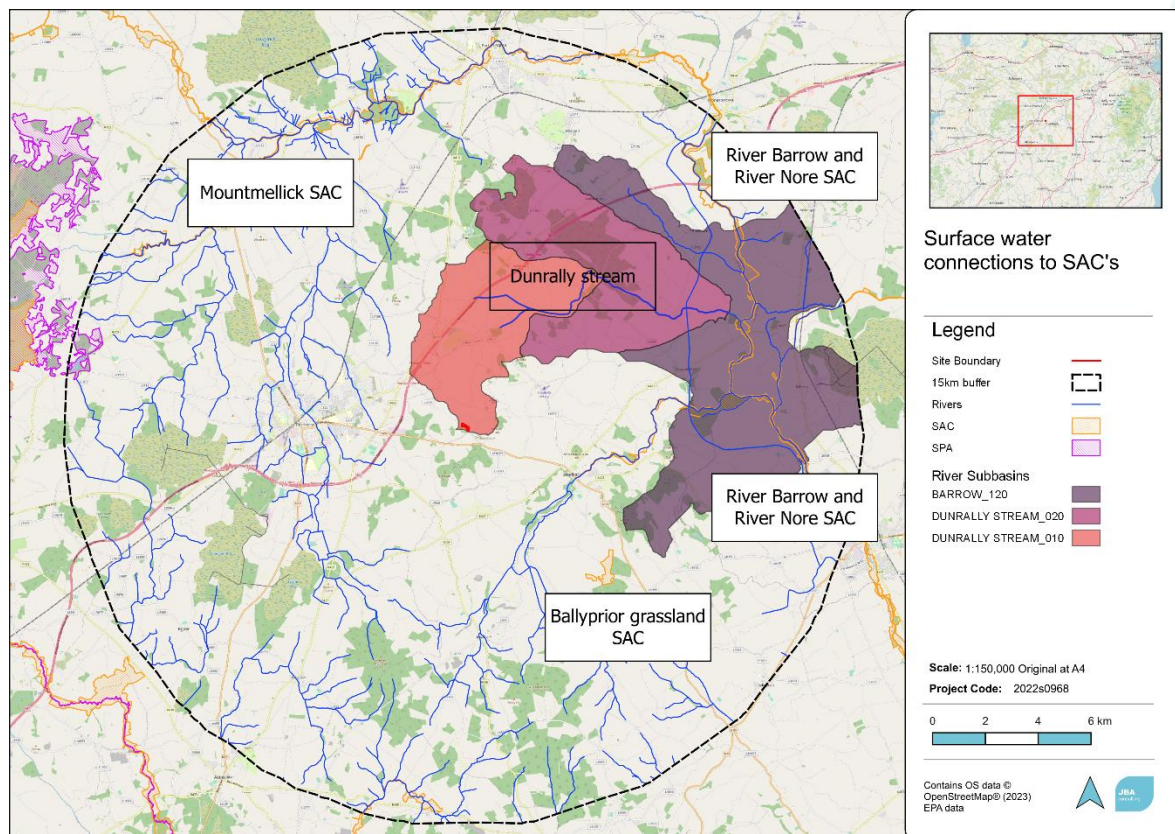


Figure 6-1 Surface waterbodies within 15 km of the proposed site, with the different sub catchments connected to the SAC

### Construction phase

The site falls from south to north at a gradient of approximately 1:10. This is not suitable for the construction of a car park, and therefore an element of cut/fill is required. The entire footprint of the car park will be stripped of topsoil. To the south of the site, an excavation depth of approximately 1.5m will be required to construct the drainage and car park build-up. To the north of the site, the levels will be raised by approximately 1m. This activity will create the potential for silt run-off.

The operations phase requires a permanent water retention bund to the north of the site, complemented with an adjacent attenuation pond. The area to the north of the car park can remain vegetated whilst the car park surface is being constructed to provide further protection to silt run-off, with the attenuation pond constructed following surfacing works. The principle of the permanent drainage design is for all run-off to be managed through infiltration.

Any site compound is expected to be within the boundary of the development and not expected to have a major footprint, with no digging or construction of long-term fixed structures.

Due to the nature and scale of the work being carried out, they are unlikely to introduce pollutants into or have significant adverse impacts on nearby surface water bodies. Additionally, no clear surface water pathway is present, with only potential minor ditches which may drain over a large distance of 14 KM downstream to the River Barrow and River Nore SAC.

Therefore no significant impact is anticipated from construction phase **via surface water pathways to these Natura 2000 sites.**

### **Operation phase**

The principle of the drainage design is to cater for all run-off through infiltration. No stormwater run-off that lands on the car park surface will leave the site during a rainfall event. The stormwater run-off will be first intercepted at green infrastructure measures throughout the car park (grassed swales, bio-retention tree pits, permeable paving). This will provide an initial filtering of the run-off. The stormwater run-off is then carried to an attenuation pond to the north of the site, which has a volume capacity to cater for the 1% AEP event. Here the stormwater will be allowed to infiltrate into the ground. A clay bund will be constructed on the northern boundary to retain this run-off whilst it is infiltrating.

**Due to the nature and small scale of the proposed works, no significant adverse impacts are expected via surface water pathways to these Natura 2000 sites.**

### 6.2.3 Groundwater Pathways

The proposed site is located within the Bagenalstown Upper (IE\_SE\_G\_153) groundwater body, the largest one in the area which feeds into the river Barrow basin. Both the River Barrow and River Nore SAC, and the Ballyprior Grassland SAC share the same groundwater body as the proposed site of work. The flow regime of the aquifer is restricted under natural conditions, with water circulation limited to the near surface, with a general southward drainage direction. The bulk of the discharge from the aquifer is likely to enter the river in the lower section between Milford and Bagenalstown, approximately 40km south southeast of the site of development.

The Ballyprior Grassland SAC does not have a groundwater pathway to the site as it is separated from the site by the Stradbally River, and any groundwater will be intercepted by this water source. Additionally, there is no possible receptor for this pathway as the QI for this Calcareous grassland 6210 which is not impacted by groundwater.

The River Barrow and River Nore SAC is connected via groundwater pathway. The low infiltration rate and the restricted aquifer flow make it unlikely for the development to have an impact on the SAC and its QIs.

### **Construction phase**

The operations phase requires a permanent water retention bund to the north of the site, complemented with an adjacent attenuation pond. The area to the north of the car park can remain vegetated whilst the car park surface is being constructed to provide further protection to silt run-off, with the attenuation pond constructed following surfacing works. The principle of the permanent drainage design is for all run-off to be managed through infiltration.

The stormwater run-off will be first intercepted at green infrastructure measures throughout the car park (grassed swales, bio-retention tree pits, permeable paving). This will provide an initial filtering of the run-off. The stormwater run-off is then carried to an attenuation pond to the north of the site, which has a volume capacity to cater for the 1% AEP event. Here the stormwater will be allowed to infiltrate into the ground in the manner that it does under current conditions.

Due to the nature and scale of the work being carried out, they are unlikely to introduce pollutants into or have significant adverse impacts on groundwater and groundwater dependent QIs of the designated sites sharing groundwater bodies.

### **Operation phase**

The development of the site will include a water retention bund along the northern boundary reducing the risk of water spilling into the ditches, as well as an attenuation site collecting drainage water from the car park itself. The soakaway area will be appropriately planted. Infiltration tests carried out on site indicate a very slow rate of infiltration, limiting the risk of groundwater contamination. There are currently



no perimeter drains, or any means of stormwater management on the site. All rainfall is catered for by infiltration. JBA's intended drainage design is to mimic this infiltration process, provided for by suds elements throughout the car park and an attenuation pond to the north of the site. Therefore, no potential impacts via ground water pathways are likely during operation of the car park.

**Due to the nature and small scale of the proposed works, no significant adverse impacts are expected via groundwater pathways to these Natura 2000 sites.**

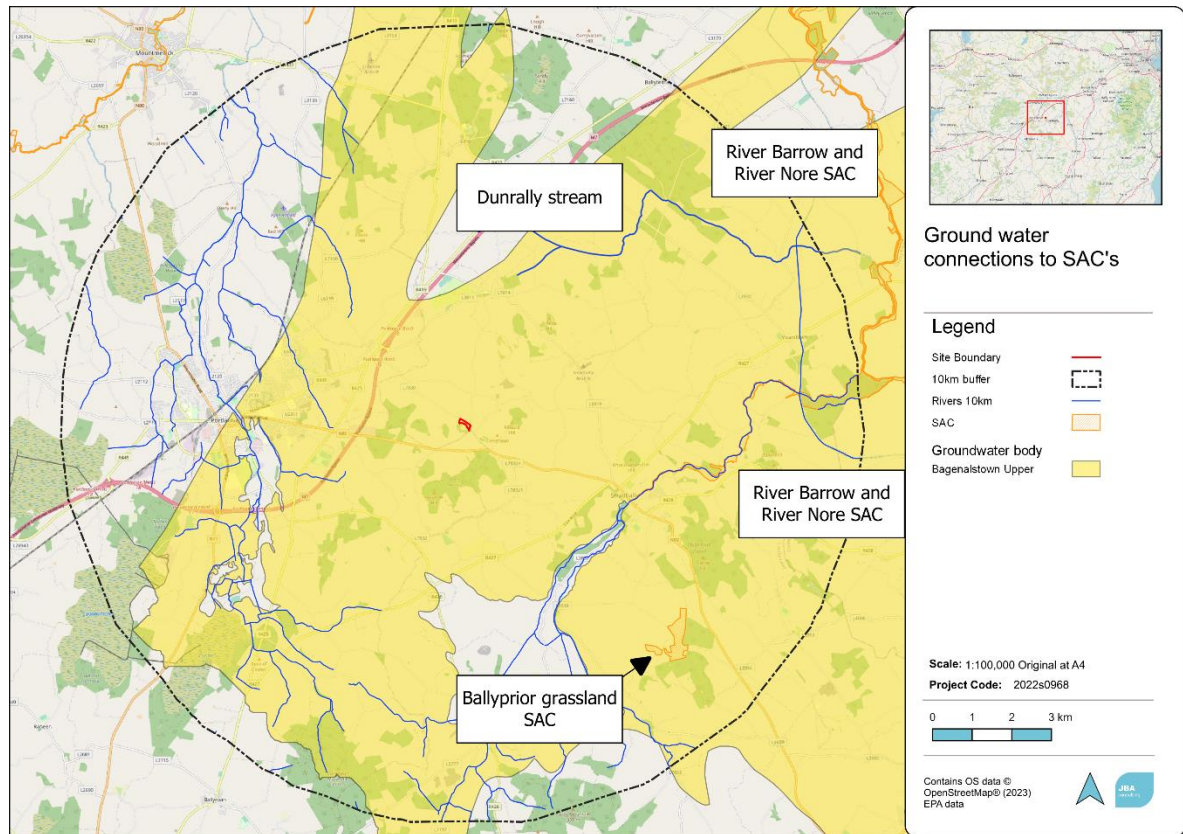


Figure 6-2: Groundwater pathways to SAC's

### 6.2.4 Land and Air Pathways

No anticipated impacts on any of the QIs associated with the Natura sites are anticipated due to the scope of the work to be carried out, the distance of the Natura 2000 sites and their QI's.

Land and air pathways are assessed separately below.

#### 6.2.4.1 Land

No direct physical impacts are expected on any of the SAC's nor on the SPA as the project location is outside of their boundaries.

**Due to the nature and small scale of the proposed works, the current use of the area being not suitable for QI birds, no significant adverse impacts are expected via Land pathways to these Natura 2000 sites.**

#### 6.2.4.2 Air

Construction works, particularly during excavation and increased works traffic, will lead to release of dust and pollutants; this is expected to be small in scale and is not within the proximity of the Natura sites. The increase in local traffic attending the site during construction working hours, resulting in an increase in NOx emissions, however vehicular emissions and dust emissions are not anticipated to significantly impact the QIs of the Natura 2000 sites due to the relatively small size and temporary nature of proposed works.

During operation, there will likely be increased traffic to the area, following the development of the site, which will lead to extra vehicular emissions. These are not anticipated to be of significant impact as the proposed site is approximately 600m from the N80, and already has road access.

**Due to the nature and small scale of the proposed works, no significant adverse impacts are expected via land and air pathways to any Natura 2000 sites.**

### 6.2.5 In-Combination effects

The previous section has identified that the project is unlikely to have any effect on the Natura 2000 sites and therefore no in-combination impacts are likely. No detailed in-combination assessment is therefore included. As the proposed project is not anticipated to have any significant impact on QIs or conservation objectives on any Natura 2000 site and based on the screening statements of the above plans and planning applications, there is no potential for other plans or projects to act in combination with it to result in likely significant effects on Natura 2000 sites.

## 6.3 Summary

Due to the location of the proposed site, the small scale and temporary nature of the works, the lack of impact pathways and distance to the Natura 2000 sites within the ZoI, the proposed project is not anticipated to have any significant adverse effects via surface water, land or air pathways to any Natura 2000 site.

Natura 2000 site	Site code	Distance	Pathway
River Barrow and River Nore SAC	002162	4.7 km	Groundwater body connection
Ballyprior Grassland SAC	002256	7.3 km	No hydrological connection

### 6.3.1 Description of likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 sites

Project Elements	Comment		
Size and scale	The proposed works will involve the conversion of an agricultural field into a car park, with associated drainage, bunds, and landscaping.		
Land-take	The project is in an agricultural setting, no direct loss of any habitat that is a feature of adjacent SPA and SAC's will occur.		
Distance from Natura 2000 site or key features of the site	<b>Natura 2000 Site</b>	<b>Direct Distance</b>	<b>Hydrological distance</b>
	River Barrow and River Nore SAC	4.7 km	Groundwater body connection
	Ballyprior Grassland SAC	7.3 km	No hydrological connection
	Mountmellick SAC	11.8 km	No hydrological connection
	Slieve Bloom Mountains SPA	14.1 km	No hydrological connection
Resource requirements (water abstraction etc.)	No resource requirements for the proposed project		
Emissions (disposal to land, water, or air)	<p><b>Surface and Ground Water</b></p> <p>No clear ground or surface water connections between the site and the SACs. No impacts are anticipated on the Natura 2000 sites. Potential pollutants will be utilised at the site, including diesel and engine/hydraulic oils, concrete, and topsoil will be removed. These</p>		

	<p>materials may spill or leak into the surface water and groundwater and silt could runoff. However, due to the small scale of the project, the lack of clear surface water pathway, and large hydrological distance to the River Barrow and Nore SAC, any pollutants/sediments would either be suitably diluted, or silt settled before reaching any watercourse.</p> <p>Therefore, no impacts are anticipated via surface and ground water pathways.</p> <p><b>Land and disturbance (noise and visual)</b></p> <p>No direct impacts are anticipated as the site is not suitable for any QIs of the nearby SAC or SPA. Some disturbance may occur to protected species that use the area, but due to the small scale of the project, significant impacts are not anticipated via land pathways and in the unlikely event that these species are impacted upon, it will be at a sufficiently low level so as not to constitute disturbance, and equal or below the usual level of disturbance at the site.</p> <p><b>Air</b></p> <p>The excavations at the site will produce some dust and emissions from working machinery but the small scale of the works is expected this will be minimal and settle out within the a few metres of the works.</p> <p><b>Operation phase:</b></p> <p>whilst it is larger in scope it remains on a small scale and is within 600m on the N80. There is unlikely to be any significantly different long-term effects on air quality and will not impact SAC's or SPA.</p>
Excavation requirements	The car park will require an excavation depth of 1.5m to the south of the site, which tapers to 300mm depth at the northern extents. Other excavation measures include deepening at the attenuation pond and topsoil removal at the locations of the picnic areas.
Transportation requirements	<p><i>Temporary Impacts:</i> Traffic to the area will increase during construction phase. All access to the site will be on pre-existing roads and transportation requirement will not pose a negative effect on Natura sites during construction.</p> <p><i>Permanent Impacts:</i> There is potential for increased traffic to the area but is unlikely to be of negative effect on Natura 2000 sites.</p>
Duration of construction, operation, decommissioning etc.	The works are expected to be carried out for 6 months, Operation will be permanent.

### 6.3.2 Description of likely changes to the Natura 2000 sites

Potential Impact	Comments
Reduction of habitat area	There will be no temporary or permanent reduction in habitat area for any Natura 2000 sites. The current land use of the site will change from agricultural grassland to a low impact car park.
Disturbance to key species	<p><i>Temporary Impacts:</i></p> <p>The construction works will temporarily increase the noise level and disturbance locally. No significant impacts are anticipated to key species given scale and nature of the construction phase and scale of the Natura 2000 sites.</p>



	<i>Permanent Impacts:</i> No disturbance to key species is anticipated during operation of the project.
Habitat or species fragmentation	There will be no temporary or permanent habitat or species fragmentation within any Natura 2000 sites
Reduction in species density	There will be no temporary or permanent reduction in species density of any QIs of Natura 2000 sites or within any Natura 2000 sites
Changes in key indicators of conservation value (water quality etc.)	There will be no changes in key indicators of conservation value
Climate change	The car park is designed to be low carbon therefore its design and build will have a minimal impact on climate objectives. Operation of the car park will result in increased traffic but unlikely to be of significant consequence due to the size and location of the site.

### 6.3.3 Description of likely impacts on the Natura 2000 sites as a whole

Potential Impact	Comments
Interference with the key relationships that define the structure of the site	There is no anticipated interference with the key relationships that define the structure of any Natura 2000 sites
Interference with key relationships that define the function of the site	There is no anticipated interference with the key relationships that define the function of any Natura 2000 sites

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Potential Impact	Indicators
Loss (Estimated percentage of lost area of habitat)	The size of the car park is approximately 2-3 acres and is not within a Natura 2000 site. No loss of Natura 2000 habitat or QIs is anticipated.
Fragmentation	Fragmentation of habitat and/or species of any QIs or within Natura 2000 sites is not anticipated
Disruption & disturbance	No disruption or disturbance to Natura 2000 sites or their QIs is anticipated
Change to key elements of the site (e.g., water quality etc.)	No change to key elements of the site is anticipated

### 6.3.4 Description of significant impacts and/or unknown magnitude

Based upon best scientific judgement, and the information provided to date, no significant effects are expected; and there are no elements where the scale or magnitude of impacts is unknown.

## 6.4 Conclusion

Following this initial screening of the Proposed Project it can be concluded that significant effects are not anticipated via surface water, groundwater, or land/air pathways on the following Natura 2000 sites:

- River Barrow and River Nore SAC
- Ballyprior Grassland SAC
- Mountmellick SAC
- Slieve Bloom Mountains SPA

On the basis of the screening exercise carried out above, it can be concluded that the possibility of any significant impacts on any European Sites, whether arising from the project itself or in combination with other plans and projects, can be excluded beyond a reasonable scientific doubt on the basis of the best scientific knowledge available. If any changes occur in the design of these works, a new Screening for Appropriate Assessment is required.

In carrying out this AA screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any Natura 2000 sites have similarly not been taken into account.

## Appendices

### A Protected species recorded within 5km of the site since 2011

These records correspond species covered by national legislation that are publicly available on the NBDC database with an online query (NBDC, 2023).

Species name	Date of last record	Dataset	Designation
<b>Birds</b>			
Black-tailed Godwit <i>Limosa limosa</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Coot <i>Fulica atra</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section I & Annex III, Section I Bird Species
Common Grasshopper Warbler <i>Locustella naevia</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Kestrel <i>Falco tinnunculus</i>	24/06/2020	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Kingfisher <i>Alcedo atthis</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern - Amber List
Common Linnet <i>Carduelis cannabina</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Pheasant <i>Phasianus colchicus</i>	09/06/2017	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive >> Annex II, Section I & Annex III, Section I
Common Sandpiper <i>Actitis hypoleucos</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Snipe <i>Gallinago gallinago</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive >> Annex II, Section I & Annex III, Section I
Common Starling <i>Sturnus vulgaris</i>	24/05/2015	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Swift <i>Apus apus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Common Wood Pigeon <i>Columba palumbus</i>	09/06/2017	Birds of Ireland	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section I & Annex III, Section I
Dunlin <i>Calidris alpina</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species    Threatened Species >> Birds of Conservation Concern - Amber List
Eurasian Curlew <i>Numenius arquata</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species >> Birds of Conservation Concern - Red List
Eurasian Teal <i>Anas</i>	31/12/2011	Bird Atlas 2007 -	Protected Species: Wildlife Acts    EU Birds



<i>crecca</i>		2011	Directive >> Annex II, Section I & Annex III, Section I Bird Species
Eurasian Tree Sparrow <i>Passer montanus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Eurasian Woodcock <i>Scolopax rusticola</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species >> Birds of Conservation Concern - Amber List
European Golden Plover <i>Pluvialis apricaria</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I & Annex II, Section II & Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern - Red List
Gadwall <i>Anas strepera</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section I Bird Species    Threatened Species >> Birds of Conservation Concern - Amber List
Hen Harrier <i>Circus cyaneus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species    Threatened Species >> Birds of Conservation Concern - Amber List
House Martin <i>Delichon urbicum</i>	02/05/2021	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
House Sparrow <i>Passer domesticus</i>	24/05/2015	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Lesser Black-backed Gull <i>Larus fuscus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Little Egret <i>Egretta garzetta</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species
Little Grebe <i>Tachybaptus ruficollis</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Mallard <i>Anas platyrhynchos</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section I & Annex III, Section I Bird Species
Merlin <i>Falco columbarius</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species    Threatened Species >> Birds of Conservation Concern - Amber List
Mute Swan <i>Cygnus olor</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Northern Lapwing <i>Vanellus vanellus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern - Red List
Peregrine Falcon <i>Falco peregrinus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species
Rock Pigeon <i>Columba livia</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex II, Section I Bird Species
Sand Martin <i>Riparia riparia</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List

Sky Lark <i>Alauda arvensis</i>	10/05/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Spotted Flycatcher <i>Muscicapa striata</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Stock Pigeon <i>Columba oenas</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Water Rail <i>Rallus aquaticus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Amber List
Whooper Swan <i>Cygnus cygnus</i>	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern - Amber List
Yellowhammer <i>Emberiza citrinella</i>	24/06/2020	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern - Red List
<b>Amphibians</b>			
Common Frog <i>Rana temporaria</i>	06/06/2015	Amphibians and reptiles of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Habitats Directive >> Annex V
Smooth Newt <i>Lissotriton vulgaris</i>	04/05/2020	Amphibians and reptiles of Ireland	Protected Species: Wildlife Acts
<b>Mammals</b>			
Irish Hare <i>Lepus timidus hibernicus</i>	22/03/2015	Atlas of Mammals in Ireland 2010-2015	EU Habitats Directive >> Annex V
Pine Marten <i>Martes martes</i>	09/06/2017	Mammals of Ireland 2016-2025	Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
West European Hedgehog <i>Erinaceus europaeus</i>	23/04/2017	Mammals of Ireland 2016-2025	Protected Species: Wildlife Acts
Eurasian Badger <i>Meles meles</i>	04/09/2015	Atlas of Mammals in Ireland 2010-2015	Protected Species: Wildlife Acts
Eurasian Red Squirrel <i>Sciurus vulgaris</i>	26/07/2015	Atlas of Mammals in Ireland 2010-2015	Protected Species: Wildlife Acts

## B Invasive species recorded within 5km of the site since 2011

These records correspond to what is publicly available on the NBDC database with an online query (NBDC, 2023).

Species name	Date of last record	Dataset	Designation
<b>Flora</b>			
Japanese Knotweed <i>Reynoutria japonica</i>	25/08/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	High Impact Invasive Species    >> Regulation S.I. 477 (Ireland)
Spanish Bluebell <i>Hyacinthoides hispanica</i>	17/04/2017	National Invasive Species Database	Invasive Species >> Regulation S.I. 477 (Ireland)
Himalayan Honeysuckle <i>Leycesteria formosa</i>	24/06/2020	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	Medium Impact Invasive Species
<b>Mammals</b>			
Greater White-toothed Shrew <i>Crocidura russula</i>	05/04/2019	Mammals of Ireland 2016-2025	Medium Impact Invasive Species
Brown Rat <i>Rattus norvegicus</i>	19/09/2012	Atlas of Mammals in Ireland 2010-2015	High Impact Invasive Species    >> Regulation S.I. 477 (Ireland)
Eastern Grey Squirrel <i>Sciurus carolinensis</i>	31/12/2011	Atlas of Mammals in Ireland 2010-2015	High Impact Invasive Species    >> EU Regulation No. 1143/2014    Invasive Species >> Regulation S.I. 477 (Ireland)
European Rabbit <i>Oryctolagus cuniculus</i>	05/09/2017	Mammals of Ireland 2016-2025	Medium Impact Invasive Species
<b>Reptiles</b>			
Red-eared Terrapin <i>Trachemys scripta</i>	16/06/2020	National Invasive Species Database	Medium Impact Invasive Species    EU Regulation No. 1143/2014



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