



# Screening Report for Appropriate Assessment

FOR  
HISTORIC EXTRACTION AND INFILLING WORKS  
AT  
Maplestown, Co. Carlow

November 21

ON BEHALF OF

**Mark Phelan**

Prepared by

Enviroguide Consulting

 *Dublin*

3D Core C, Block 71, The Plaza,  
Park West, Dublin 12

 *Kerry*

19 Henry Street  
Kenmare, Co. Kerry

 *Wexford*

M10 Wexford Enterprise  
Centre, Strandfield Business  
Park, Rosslare Road, Wexford

 [www.enviroguide.ie](http://www.enviroguide.ie)

 [info@enviroguide.ie](mailto:info@enviroguide.ie)

 +353 1 565 4730



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# 1 INTRODUCTION

## 1.1 Background

Enviroguide Consulting was commissioned by Mark Phelan to carry out an Appropriate Assessment in relation to the Historic (unauthorised) and Proposed extraction and infilling at a sand and gravel quarry, in Maplestown, Co. Carlow. The purpose of this report is to provide information to the Competent Authority to enable it to undertake Stage 1 Appropriate Assessment Screening in respect of the Historic/ Proposed Development.

### 1.1.1 Unauthorised extraction and Infill (since 2012)

The Historic Development took place from July 2012 when unauthorised extraction and infill activities occurred at the site outside of the granted planning permission period. It should be noted that the operator was under the impression that a 10-year permission had been granted for this development. This AA screening report will retrospectively assess the potential impact on European sites of unauthorised extraction and infill activities which took place during this period.

## 1.1 Legislative Background

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs). It is the responsibility of each member state to designate SPAs and SACs, both of which will form part of Natura 2000, a network of protected sites throughout the European Community. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.

An 'Appropriate Assessment' (AA) is a required assessment to determine the likelihood of significant effects, based on best scientific knowledge, of any plans or projects on European sites. A screening for AA determines whether a plan or project, either alone or in combination with other plans and projects, is likely to have significant effects on a European site, in view of its conservation objectives.

This AA Screening has been undertaken to determine the potential for significant effects on relevant European Sites. The purpose of this assessment is to determine, the appropriateness, or otherwise, of the Historic/Proposed Development in the context of the conservation objectives of such sites.

### 1.1.2 Legislative Context

An Appropriate Assessment is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a European site. Paragraph 3 states that:

*“6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site, in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”*

These obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended (“the 2000 Act”), and in particular Section 177U and Section 177V thereof. The relevant provisions of Section 177U in relation to AA screening have been set out below:

*“177U.— (1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.*

*(2)...*

*(3)...*

*(4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.*

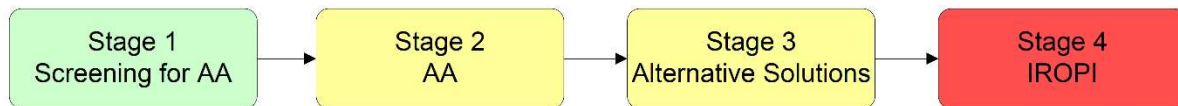
*(5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.”*

### **1.1.3 Stages of AA**

This Appropriate Assessment Screening Report (the “**Screening Report**”) has been prepared by Enviroguide Consulting. It considers whether the Historic/Proposed Development was/is likely to have a significant effect on a European Site and whether a Stage 2 Appropriate Assessment is required.

The AA process is a four-stage process, with issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.





**FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).**

The four stages of an AA, can be summarised as follows:

- Stage 1 Screening addresses:
  - whether a plan or project is directly connected to or necessary for the management of the site, or
  - whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.
- Stage 2: *Natura Impact Statement (NIS)*. The second stage of the AA process assesses the impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the European site, having regard to the conservation objectives of the site and its ecological structure and function. A NIS must provide the objective scientific information to enable the competent authority to carry out an appropriate assessment of the proposed development. It should describe any mitigation measures to avoid and reduce significant negative impacts.
- Stage 3: *Assessment of alternative solutions*. If the outcome of Stage 2 is negative i.e. adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- Stage 4: *Assessment where no alternative solutions exist and where adverse impacts remain*. The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European Site, where no less damaging solution exists.

The Competent Authority must determine that an NIS is required where the project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.

## 2 METHODOLOGY

### 2.1 Guidance

This AA Screening Report has been undertaken in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*. (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPW 1/10 & PSSP 2/10;
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001);
- *Communication from the Commission on the precautionary principle* (European Commission, 2000); and,
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019).
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021*

### 2.2 Screening Steps

Screening for AA involves the following:

- Establish whether the plan is directly connected with or necessary for the management of a European site;
- Description of the plan or project and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the European site;
- Identification of European sites potentially affected;
- Identification and description of potential effects on the European site;
- Assessment of the likely significance of the impacts identified on the European site; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

### 2.3 Desk Study

A desktop study was carried out to collate and review available up-to-date information, datasets, and documentation sources relevant for the completion of this Screening Report. The desktop study relied on the following sources:

- Information on the network of European sites, boundaries, qualifying interests and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at [www.npws.ie](http://www.npws.ie) ;
- Text summaries of the relevant European sites taken from the respective Standard Data Forms and Site Synopses available at [www.npws.ie](http://www.npws.ie) ;
- Information on species records and distributions, obtained from the National Biodiversity Data Centre (NBDC) at [maps.biodiversityireland.ie](http://maps.biodiversityireland.ie);
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at [gis.epa.ie](http://gis.epa.ie);
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at [www.gsi.ie](http://www.gsi.ie) ;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland;
- Information on the existence of permitted developments, or developments awaiting decision, in the vicinity of the proposed development from Carlow County Council available at: <https://arcgis.com/home/item.html?id=393aff56>
- Information on the extent, nature and location of the Historic/Proposed Development, provided by the applicant and/or their design team.
- Information on the proposed works to be followed as part of the Historic/Proposed Development, taken from the Final Project description provided by the Applicant along within an EIAR conducted for the Historic works in 2006 (EssGee Consultants, 2006).

For a complete list of the specific documents consulted as part of this assessment, see *Section 5 References*.

## 2.4 Assessment of Impacts

The potential for significant effects that may or may have arise from the Historic/Proposed Development were considered through the use of key indicators, namely:

- Habitat loss or alteration
- Habitat/species fragmentation
- Disturbance and/or displacement of species
- Changes in population density
- Changes in water quality and resource
- The potential for spread of invasive plant species

In addition, information pertaining to the conservation objectives of the European sites, the ecology of the designated habitats and species and known or perceived sensitivities of the habitats and species were considered.

### 3 STAGE 1 SCREENING

#### 3.1 Management of European Sites

The Historic/Proposed Development at Maplestown Co. Carlow is not directly connected with or necessary to the management of European Sites.

#### 3.2 Description of Proposed Development

##### 3.2.1 Site location

The Site consists of a rural farm property in Maplestown, Co. Carlow. The townland of Maplestown is located in the northern part of Co. Carlow bordering Co. Kildare and Co. Wicklow. It is located approximately 5 km northwest of the town of Rathvilly, Co. Carlow, and 4.5 km south west of Baltinglass, Co. Wicklow. The larger urban centres of Carlow Town, Co. Carlow and Naas, Co. Kildare are situated approximately 15 km and 35 km away, respectively. The sites are bound to the west by a country road (L-8097), and to the South, East and North by agricultural lands. The surrounding land use is predominantly rural agricultural land uses including livestock and arable farming, as well as forestry plantation. A small stream lies approximately 0.07 km to the South of the Sites and a broadleaf birch dominated woodland lies to the West of the Sites. The surrounding landscape is undulating, characterised by low ridges and knolls. The Historic/Proposed sites are 15.205 ha/ 18.812 ha in area respectively, and occur mainly on agricultural grassland with several private dwellings also occurring within the vicinity.

##### 3.2.2 Description of Historic/Proposed Development

###### 3.2.2.1 *Historic(unauthorised) Extraction and Infill (since 2012)*

The historic development took place since July 2012 when unauthorised extraction and infill activities occurred at the site outside of the granted planning permission period. The historic development did not require the construction of permanent buildings. Instead, the unauthorised development utilised the existing (permitted) infrastructure such as washing/rinsing plant, a dry screener, one bunded fuel storage tank, a wheel wash, Portacabin, chemical toilet, portable generator and water supply (non-drinking water). The initial construction phase also involved the excavation of 3 no. settlement lagoons, stockpiling area, truck and plant parking area and site access. It should be noted that all of these were installed on site during the valid permitted timelines. The operational phase of the historic (unauthorised) development occurred on an area of land approximately 4.177 ha and involved the extraction of approximately 192,240 tonnes of sand and gravel from the site. A total 41,700 m<sup>3</sup> of overburden were removed and set aside for re-use in the restoration of the area.

The traffic servicing the Site daily during the unauthorised extraction period was the same to that previously assessed for the operation of the quarry with a maximum of 16 trucks leaving the Site loaded with materials, and 16 HGVs returning to the Site empty; and approximately 5-10 no. staff vehicle movements in to the Site, and 5-10 no. leaving the Site each day.

The facility operation hours (including sand/gravel extraction and operation of plant and machinery) was as follows:

08.00 - 17.00 Monday to Friday

08.00 - 14.00 Saturday

No Sunday or Bank Holiday work took place.

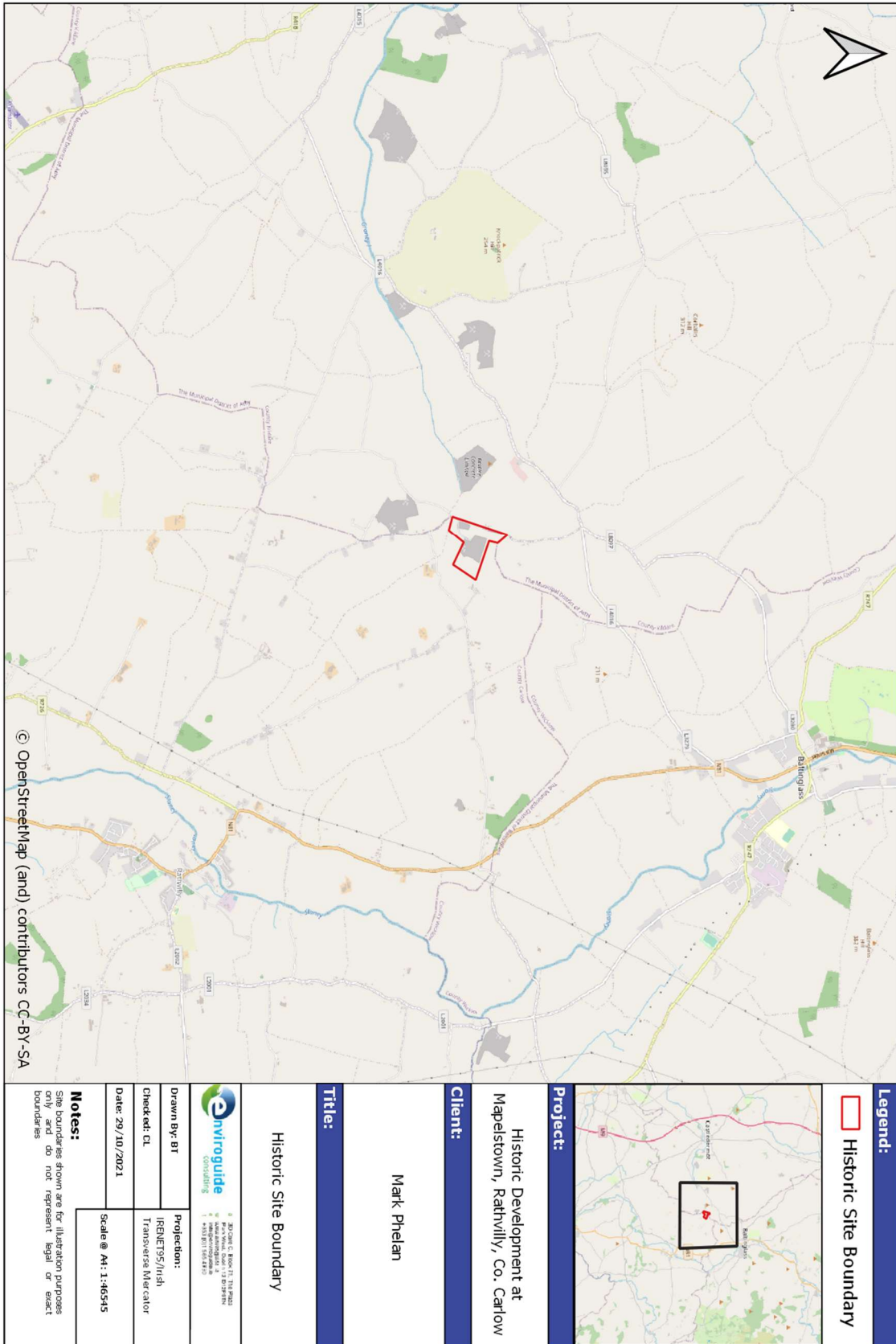


FIGURE 2. HISTORIC SITE LOCATION



Figure 3. Area of Substitute Consent

### 3.3 Surrounding Environment

#### 3.3.1 Surface Water

The Site is located within the River Barrow Water Framework Directive (WFD) Catchment, the Lerr sub-catchment (Lerr\_SC\_010), the Graney (Lerr) River Sub-basin (Graney (Lerr\_010)) and the Barrow Hydrometric Area (EPA, 2021). The Broadstown stream (EPA code: 14B54) is located 0.07 km south of the southern site boundary and is mapped by the EPA as flowing in a westerly direction for approx. 0.6 km before joining the Graney (Lerr) River (EPA code: 14G07), which flows in a south westerly direction for approx. 8.9 km before entering the River Barrow and River Nore SAC. There are currently no EPA monitoring stations along the Broadstown stream. However the Graney (Lerr) (IE\_SE\_14G070310) and Lerr (IE\_SE\_17L010155) waterbodies which receive the Broadstown stream are listed as “*At Risk*” and have a Water Framework Directive (WFD) status of “*Poor*” and “*Good*” and respectively based on the nearest monitoring data to the proposed development (EPA,2021).

#### 3.3.2 Hydrogeology

The Site is situated on the New Ross groundwater body, which has a WFD status of *Good* and is *Not At Risk* of not meeting its WFD objectives. The groundwater vulnerability to contamination via human activities is classed as *High*. The Site is on a moderately productive aquifer, namely LI, *bedrock which is moderately productive only in Local Zones*. The groundwater rock units underlying the aquifer are classified as *Pale, fine to coarse-grained granite*. (GSI, 2021). The subsoil beneath the Site is classified as *Limestone sands and gravels (Carboniferous)* (EPA,2021).

### 3.4 Identification of Relevant European Sites

To identify the European Sites that potentially lie within the Zone of Influence (ZOI) of the Development, a Source-Path-Receptor model (S-P-R) was adopted, as described in ‘OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management’ (OPR, 2021), a practice note produced by the Office of the Planning Regulator, Dublin. This note was published to provide guidance on Screening for Appropriate Assessment (AA) during the planning process, and although it focuses on the approach a planning authority should take in screening for AA, the methodology is also readily applied in the preparation of Appropriate Assessment Screening Reports such as this.

The guidance document published by the Department of Housing, Planning and Local Government (then DEHLG) ‘Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities’ (2009) recommends an arbitrary distance of 15km as the precautionary ZOI for a plan or project being assessed for likely significant effects on European sites, stating however that this should be evaluated on a case-by-case basis.

As such, the 15km ZOI is used in this report as an initial starting point for collating European sites for AA screening.

The methodology used to identify relevant European sites comprised the following:

1. Use of current GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website ([www.npws.ie](http://www.npws.ie)) and the EPA website



- ([www.epa.ie](http://www.epa.ie)) to identify European Sites which could potentially be affected by the Proposed Development;
2. The catchment data were used to establish or discount potential hydrological connectivity between the Project Boundary and any European Sites.
  3. All European sites within the zone of influence (within 15km of the Historic/Proposed Development Site) were identified and are shown in Figure .
  4. The potential for connectivity with European sites at distances greater than 15km from the Historic/Proposed Development was also considered in this initial assessment. In this case, there is no potential connectivity between the Historic/Proposed Development Site and European Sites located at a distance greater than 15km from the Historic/Proposed Development based on the S-P-R model.
  5. Table 1 provides details of all relevant European sites as identified in the preceding steps. The potential for pathways between European Sites and the Historic/Proposed Development Site was assessed on a case-by-case basis using the Source-Pathway-Receptor framework as per the OPR Practice Note PN01 (March 2021). Those European Sites where a pathway has been identified are highlighted in green. Pathways considered included:
    - a. Direct pathways (e.g., proximity (i.e., location within the European site), water bodies, air (for both air emissions and noise impacts).
    - b. Indirect pathways (e.g., disruption to migratory paths, 'Sightlines' where noisy or intrusive activities may result in disturbance to shy species).
  6. The site synopses and conservation objectives of these sites, as per the NPWS website ([www.npws.ie](http://www.npws.ie)), were consulted and reviewed at the time of preparing this report.
  7. There is absolutely no reliance placed in this Appropriate Assessment Screening Report on measures intended to avoid/reduce harmful effects on the European Sites.

The result of this preliminary screening concluded that there is a total of seven SACs located within the ZOI of the Historic/Proposed Development Site. The distances to each site listed are taken from the nearest possible point of the Historic/Proposed Development Site boundary to the nearest possible point of each European Site.

Potential pathways between the Historic/Proposed Development Site and one European site within the ZOI were identified. The European site linked to the Historic/Proposed Development is:

- River Barrow and River Nore SAC

**TABLE 1. EUROPEAN SITES WITHIN THE 15KM PRECAUTIONARY ZONE OF INFLUENCE OF THE UNAUTHORISED DEVELOPMENT AND POTENTIAL IMPACT PATHWAYS BETWEEN THEM. THOSE EUROPEAN SITES FOR WHICH A S-P-R LINK WAS IDENTIFIED ARE HIGHLIGHTED IN GREEN.**

Site Name & Site Code	Qualifying Interests ( *= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
<b>Special Areas of Conservation (SAC)</b>			
Holdenstown Bog SAC (001757)	- Transition mires and quaking bogs [7140]	3.0 km E	<p><b>None</b> – There are no pathways between the Historic/Proposed Development and these SACs.</p> <p>The intervening distances between the Historic/Proposed Development and these SACs is sufficient to exclude the possibility of significant effects arising from: emissions of noise, dust, pollutants and/or vibrations, increased traffic volumes and associated emissions; increased lighting emitted from the Site and increased human presence at the Site during the Operational Phase.</p>
Slaney River Valley SAC (000781)	<ul style="list-style-type: none"> <li>- Estuaries [1130]</li> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>- Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]</li> <li>- Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>- 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]</li> <li>- <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</li> <li>- <i>Petromyzon marinus</i> (Sea Lamprey) [1095]</li> <li>- <i>Lampetra planeri</i> (Brook Lamprey) [1096]</li> <li>- <i>Lampetra fluviatilis</i> (River Lamprey) [1099]</li> <li>- <i>Alosa fallax fallax</i> (Twaiite Shad) [1103]</li> <li>- <i>Salmo salar</i> (Salmon) [1106]</li> <li>- <i>Lutra lutra</i> (Otter) [1355]</li> <li>- <i>Phoca vitulina</i> (Harbour Seal) [1365]</li> </ul>	3.2 km S	
River Barrow And River Nore SAC (002162)	<ul style="list-style-type: none"> <li>- Estuaries [1130]</li> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Reefs [1170]</li> <li>- Salicornia and other annuals colonising mud and sand [1310]</li> <li>- Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>- Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> </ul>	12.9 km SW	

Site Name & Site Code	Qualifying Interests ( *= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
	<ul style="list-style-type: none"> <li>- Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]</li> <li>- European dry heaths [4030]</li> <li>- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]</li> <li>- Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</li> <li>- Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>- 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]</li> <li>- <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</li> <li>- <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</li> <li>- <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]</li> <li>- <i>Petromyzon marinus</i> (Sea Lamprey) [1095]</li> <li>- <i>Lampetra planeri</i> (Brook Lamprey) [1096]</li> <li>- <i>Lampetra fluviatilis</i> (River Lamprey) [1099]</li> <li>- <i>Alosa fallax fallax</i> (Twaite Shad) [1103]</li> <li>- <i>Salmo salar</i> (Salmon) [1106]</li> <li>- <i>Lutra lutra</i> (Otter) [1355]</li> <li>- <i>Trichomanes speciosum</i> (Killarney Fern) [1421]</li> <li>- <i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]</li> </ul>		
Wicklow Mountains SAC (002122)	<ul style="list-style-type: none"> <li>- Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</li> <li>- Natural dystrophic lakes and ponds [3160]</li> <li>- Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</li> <li>- European dry heaths [4030]</li> <li>- Alpine and Boreal heaths [4060]</li> <li>- Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]</li> <li>- Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]</li> <li>- Blanket bogs (* if active bog) [7130]</li> <li>- Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</li> </ul>	14.9km NE	<p><b>None</b> – There are no pathways between the Historic/Proposed Development and this SAC.</p> <p>The intervening distances between the Historic/Proposed Development and this SAC is sufficient to exclude the possibility of significant effects arising from: emissions of noise, dust, pollutants and/or vibrations, increased traffic volumes and associated emissions; increased lighting emitted from the Site and increased human presence at the Site during the Operational Phase.</p>

Site Name & Site Code	Qualifying Interests ( *= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
	<ul style="list-style-type: none"><li>- Calcareous rocky slopes with chasmophytic vegetation [8210]</li><li>- Siliceous rocky slopes with chasmophytic vegetation [8220]</li><li>- Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li><li>- <i>Lutra lutra</i> (Otter) [1355]</li></ul>		

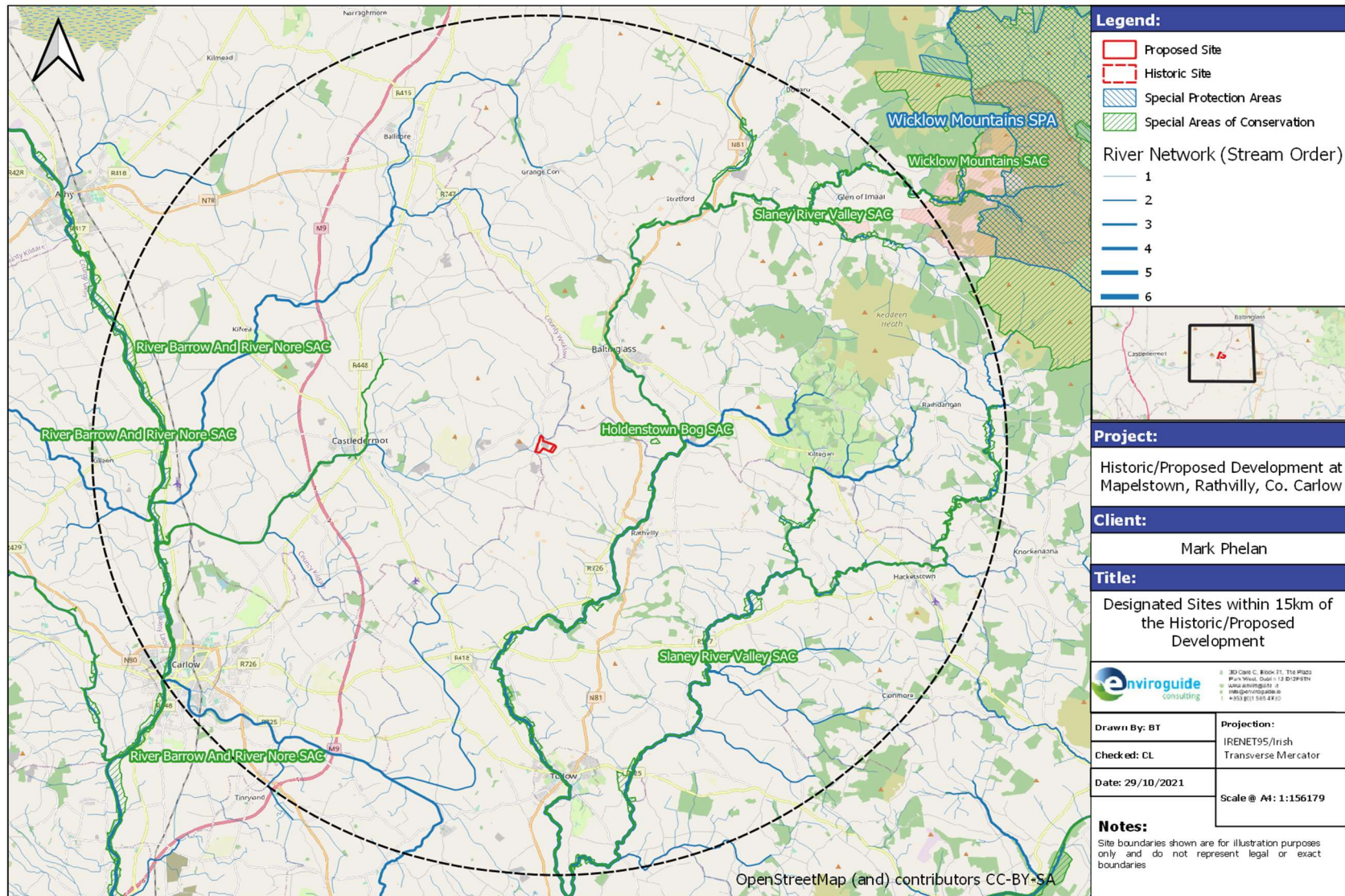


FIGURE 5. EUROPEAN SITES WITHIN 15KM OF THE HISTORIC/PROPOSED DEVELOPMENT.

### 3.5 Assessment of Likely Significant Effects

A European Site will only be at risk from likely significant effects where a Source-Pathway-Receptor link exists between the Historic/Proposed Development and the European site. As such, the remainder of this AA Screening report will focus on the European sites for which a S-P-R link was identified, namely:

- River Barrow and River Nore SAC

#### 3.5.1 Conservation objectives

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

Site specific conservation objectives (SSCO) have been compiled for the European Sites listed above. Site-specific conservation objectives aim to define favourable conservation condition for habitats or species at a site.

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

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

#### 3.5.2 Identification and Assessment of Likely Significant Effects

The conservation objectives of the European sites within the zone of influence were reviewed and assessed to establish whether the construction and operation of the Proposed Development has the potential to have a negative impact on any of the qualifying interests and/or conservation objectives of the European sites listed above.

The assessment framework is taken from the best practice guidelines issued by the European Commission, i.e., "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".

The potential for significant effects resulting from the Proposed Development during the Construction and Operational Phases was determined based on a range of indicators, including:

- Habitat loss or alteration
- Habitat/species fragmentation
- Disturbance and/or displacement of species
- Changes in population density; and
- Changes in water quality and resource

The following elements of the Historic/Proposed development were assessed for their potential for likely significant effects on European Sites.

### **3.5.2.1 Construction Phase**

#### **3.5.2.1.1 Historic Unauthorised Extraction and Infill (since 2012)**

The quarry facility has been fully operational since 2007 (Original planning ref reg:06/842 and granted permission ref reg:PLO1.221741). As this existing infrastructure was used during the historic development there was no construction phase for the historic (unauthorised) development. Therefore, it is considered that there is no potential for significant impacts as a result of construction phase activities from the unauthorised activities.

### **3.5.2.2 Operational Phase**

#### **3.5.2.2.1 Unauthorised Extraction and Infill (since 2012)**

- Potential surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies.
- Potential contamination of groundwater waterbodies due to past potential site activities

### **3.5.2.3 Habitat Loss and Alteration**

#### **3.5.2.3.1 Unauthorised extraction and infill (since 2012)**

The Historic Project was not located within any European Site and therefore was no loss or alteration of habitat as a result of the Historic Development.

### **3.5.2.4 Habitat / Species Fragmentation**

#### **3.5.2.4.1 Unauthorised extraction and infill (since 2012)**

Habitat fragmentation has been defined as the 'reduction and isolation of patches of natural environment' (Hall *et al.*, 1997 cited in Franklin *et al.*, 2002) usually due to an external disturbance such as that an alteration of the spatial composition of a habitat occurs that alters the habitat and 'create[s] isolated or tenuously connected patches of the original habitat' (Wiens, 1989 cited in Franklin *et al.*, 2002). This results in spatial separation of habitat units which had previously been in a state of greater continuity.

As there was no habitat loss or alteration within any European Site, no habitat or species fragmentation would have arisen as a result of the Historic Development.

### **3.5.2.5 Changes in Water Quality and Resource**

#### **3.5.2.5.1 Unauthorised Extraction and Infill (since 2012)**

The BROADSTOWN stream (EPA code: 14B54) is located on the southern site boundary of the Historic Site and is mapped by the EPA as flowing in a westerly direction for approx. 0.6 km before joini

ng the Graney (Lerr) River (EPA code: 14G07), which flows in a south westerly direction for approximately 8.9 km before entering the River Barrow and River Nore SAC. Although the Historic Extraction and Infill area is approximately 150 m North of the Broadstown stream, **there is potential** albeit negligible, that surface water run-off generated during the operational phase extraction and infilling activities may have reached the Broadstown stream and the River Barrow and River Nore SAC downstream. This sediment containing run off may have given rise to significant effects and impacts on the qualifying interests of the River Barrow and River Nore SAC. In addition, the historic site and the Broadstown stream occurs on a moderately productive gravel aquifer (EPA Code: Lg). As the groundwater vulnerability to contamination via human activities is classed as *High* in this area, there is potential for past pollution events (fuel spills) on site to have contaminated the Broadstown stream leading to a reduction in water quality within The River Barrow and River Nore SAC downstream.

#### **3.5.2.6 Disturbance and / or Displacement of Species**

##### **3.5.2.6.1 Unauthorised Extraction and Infill (Since 2012)**

As none of the Historic works occurred within or immediately adjacent to The River Barrow and River Nore SAC, there would have been no direct disturbance of species during the construction and operational phases. However, given the possibility of sediment run-off entering this Site via Broadstown stream mentioned above, there is a possibility that some sediment sensitive SCI species (Nore Pearl Mussel, Freshwater Pearl Mussel, Salmon and Otter) may have been displaced or disturbed as a result of unsuitable environmental conditions and indirect habitat loss due to sedimentation between since 2012. In addition, given the high groundwater vulnerability in this area, there is potential for past accidental pollution events (fuel spills) on site to have contaminated the Broadstown stream leading to a disturbance and displacement of these sensitive species within The River Barrow and River Nore SAC downstream.

#### **3.5.2.7 Changes in Population Density**

##### **3.5.2.7.1 Unauthorised Extraction and Infill (since 2012)**

The possible indirect hydrological connection between the Historic infill and extraction areas and River Barrow and River Nore SAC had the potential to transport sediment run-off to this Site. This may have result in reduced population densities of sediment sensitive species associated with this Sites including: Nore Pearl Mussel, Freshwater Pearl Mussel, Salmon and Otter, particularly during periods of prolonged sediment run-off. In addition, sedimentation may also have led to the indirect loss of key habitats used by these species and their prey. Similarly, given the high groundwater vulnerability in this area, there is potential for past pollution events (fuel spills) on site to have contaminated the Broadstown stream leading to a reduction in environmental condition and consequently population densities of SCI species within The River Barrow and River Nore SAC.



### 3.6 Potential for In-combination Effects

A review has also been undertaken of the surrounding area to determine relevant existing or permitted developments. The following sets out several relevant permissions in the vicinity of the Historic/Proposed Development

#### 3.6.1 Historic and Existing Planning Permissions

##### Planning Application Reference: 16204

This site is located 460m to the south of the site boundary of the Historic Development. Permission was sought to install a septic tank with percolation area and all associated site works on lands located in Maplestown, Rathvilly, Co. Carlow. **Decision Date: 13/08/2015. Application Status: Granted.**

##### Planning Application Reference: 21148

This site is located in the farmyard in the north eastern corner of the current site boundary of the Proposed Development. Permission is sought to construct a new grain / straw & machinery store, concrete aprons with all associated works on lands located in Maplestown, Rathvilly, Co. Carlow. **Decision Date: 11/06/2021. Application Status: Finalised**

##### Planning Application Reference: 2147

This site is located 500m to the north eastern of the Proposed Development. Permission is sought for development of a milking parlour and collecting yard, cattle handling area, dairy, machine room, farm office, storeroom, meal bin, slatted tanks, extension to existing cattle shed, concrete yards and ancillary works. **Date Received: 17/02/2021. Application Status: Finalised.**

##### Planning Application Reference: 2043

This site is located 450m to the south of the Proposed Development. Permission is sought to construct new agricultural buildings including a new indoor horse riding arena, riding school stables, private breeding yard stables and walker, toilet facilities with waste water treatment unit and percolation area, private well, widening of existing site entrance & all associated site works. **Date Received: 13/02/2020. Application Status: Finalised.**

#### 3.6.2 Relevant Policies and Plans

The following policies and plans were reviewed and considered for possible in-combination effects with the Proposed Development:

- Carlow County Development Plan 2009-2014
- Carlow County Development Plan 2015-2021

The Carlow County Development 2009-2014 recognises the importance of quarry industries to the local and national economy as valuable sources of raw material for industry in general and the construction industry in particular and as an important source of employment. However the plan also recognising the potential environmental impacts of quarrying activities recommends that appropriate environmental guidelines be implanted in quarrying activities.

“Quarry Planning Guidelines, as published by the Department of the Environment Heritage and Local Government in April 2004, the ICF Environmental Code of October 2005, and the

Guidelines for Environmental Management in the Extractive Sector as published by the Environmental Protection Agency in May 2006 are key documents for standards required of extractive developments”.

The Carlow County Development Plan 2015 – 2021, lists policy E.D. Policy 13 outlining the councils commitment to facilitate the further development of the quarrying industry by permitting the continuation and extension of existing quarries where it does not adversely impact on the environment “It is the policy of Carlow County Council to: Provide for quarry and extractive development where it can be demonstrated that the development would not result in a reduction of the visual amenity of designated scenic area, to residential amenities or give rise to potential damage to areas of scientific, geological, botanical, zoological and other natural significance including all designated European Sites”

Section 3.5.7 of the Carlow County Development plan (2015-2021) relating to Aggregate Resources, Mining and Extractive Industry also states:

“Carlow County Council recognises the importance of sand and gravel extractions in the economic life of the county and its importance as a valuable source of employment in parts of the county. However, it is also recognized that exploitation of deposits or mining (open cast or underground) can have significant environmental impacts on the amenities of surrounding areas. The Planning Authority will have regard to the provisions of the DoEHLG’s “Quarries and Ancillary Activities; Guidelines for Planning Authorities” in the assessment and determination of development proposals.”

The unauthorised extraction and infilling works in this case were not found to be at variance with these policies. All other existing or proposed developments within the locality of the assessed area were small scale individual projects which are residentially based. There are 5 other smaller quarries located approx. within a 1km radius of the site, however there is no direct link between the site and this other quarries and it would be subject to the same assessment as the subject site in this report. All other existing or proposed developments (2007- 2017) within the locality of the assessed area were small scale individual projects which are residentially based. There are no other known activities or proposed activities at or within close proximity to the site that would be likely to result in any significant cumulative impacts on the ecology of the local area at this current time. It is therefore considered that no significant cumulative ecological impacts would occur.

**TABLE 2. SUMMARY OF IMPACT ASSESSMENT ON EUROPEAN SITES AS A RESULT OF THE UNAUTHORISED DEVELOPMENT**

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required
<b>SAC</b>						
Holdenstown Bog SAC (001757)	No	No	No	None	None	No
Slaney River Valley SAC (000781)	No	No	No	None	None	No
River Barrow And River Nore SAC (002162)	No	No	Yes	Yes	Yes	Yes
Wicklow Mountains SAC (002122)	No	No	No	None	None	No

## 4 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

An Appropriate Assessment/Retrospective Appropriate Assessment Screening report has been carried out in relation to the Historic (unauthorised)/Proposed Development and accompanies this application. The conclusions of these screenings are included below:

The unauthorised extraction and infilling at Maplestown, Rathvilly, Co. Carlow has been assessed taking into account:

- the nature, size and location of the Historic/Proposed works and possible impacts arising from the construction works.
- the qualifying interests and conservation objectives of the European Sites
- the potential for in-combination effects arising from other plans and projects.

In conclusion, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that, on the basis of objective information; the possibility may be excluded that the Development will have had a significant effect on any of the European Sites listed below:

- *Holdenstown Bog SAC (001757)*
- *Slaney River Valley SAC (000781)*
- *Wicklow Mountains SAC (002122)*

However, upon examination of the relevant information including in particular the nature of the Historic/ Proposed Development and the likelihood of significant effects on European Sites, the possibility may not be excluded that the Historic/Proposed Development may have had a likely significant effect on any of the European Sites listed below:

- River Barrow and River Nore SAC (002162)

Accordingly, a Remedial Natura Impact Statement has been prepared for the Development and is included under separate cover.

## 5 REFERENCES

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## Appendix 1: European Site Synopsis

### River Barrow and River Nore SAC

*This site consists of most of the freshwater stretches of the Barrow/Nore River catchments. The Barrow is tidal as far upriver as Graiguenamanagh while the Nore is tidal as far upriver as Inishtioge. The site also includes the extreme lower reaches of the River Suir and all of the estuarine component of Waterford Harbour extending to Creadan Head. The larger of the many tributaries include the Lerr, Fushoge, Mountain, Aughavaud, Owenass, Boherbaun and Stradbally Rivers of the Barrow and the Delour, Dinin, Erkina, Owveg, Munster, Arrigle and King's Rivers on the Nore. Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains. They traverse limestone bedrock for a good proportion of their routes, though the middle reaches of the Barrow and many of the eastern tributaries run through Leinster Granite. A wide range of habitats associated with the rivers are included within the site, including substantial areas of woodland (deciduous, mixed), dry heath, wet grassland, swamp and marsh vegetation, salt marshes, a small dune system, biogenic reefs and intertidal sand and mud flats. Areas of improved grassland, arable land and coniferous plantations are included in the site for water quality reasons.*

*The site supports many Annexed habitats including the priority habitats of alluvial woodland and petrifying springs. Quality of habitat is generally good. The site also supports a number of Annex II animal species - *Salmo salar*, *Margaritifera margaritifera*, *M.m. durrovensis*, *Alosa fallax fallax*, *Austropotamobius pallipes*, *Petromyzon marinus*, *Lutra lutra*, *Lampetra fluviatilis* and *L. planeri*. Annex I Bird species include *Anser albifrons flavirostris*, *Falco peregrinus*, *Cygnus cygnus*, *Cygnus columbianus bewickii*, *Limosa lapponica*, *Pluvialis apricaria* and *Alcedo atthis*. A range of rare plants and invertebrates are found in the woods along these rivers and rare plants are also associated with the saltmarsh.*