



**Appropriate Assessment Screening Report
for Presentation House, Bagenalstown, Co. Carlow**

prepared for Brennan Associates

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Table of Contents

1	Introduction	1
2	Methodology	2
2.1	Guidance	2
2.2	Assessment Methodology.....	2
2.3	Desktop Data Review	4
3	Provision of Information for Screening for Appropriate Assessment	4
3.1	Description of the Proposed Development.....	5
3.2	Overview of the Receiving Environment.....	6
3.3	Assessment of Effects on European Sites	10
4	Conclusions of Screening Assessment Process.....	17

Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1).

Appendix II

Planning policies/objectives relating to the protection of European sites and water quality.

Appendix III

IE Consulting (2023). *Technical Note. Proposed Community Enterprise Centre. Presentation House, Bagenalstown, Co. Carlow. Hydrological/Hydrogeological Impact.*

1 Introduction

This report, which contains information required for the competent authority (in this instance Carlow County Council) to undertake a screening for Appropriate Assessment (AA), has been prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on, and assesses the potential for, the proposed development to impact on the Natura 2000 network (hereafter referred to as European sites)¹. The proposed development consists of repurposing of an existing building, previously known as the Presentation Convent, into a multi-use enterprise centre at Bagenalstown, Co. Carlow (Irish grid reference: S 70120 61681; general location shown in Figure 1).

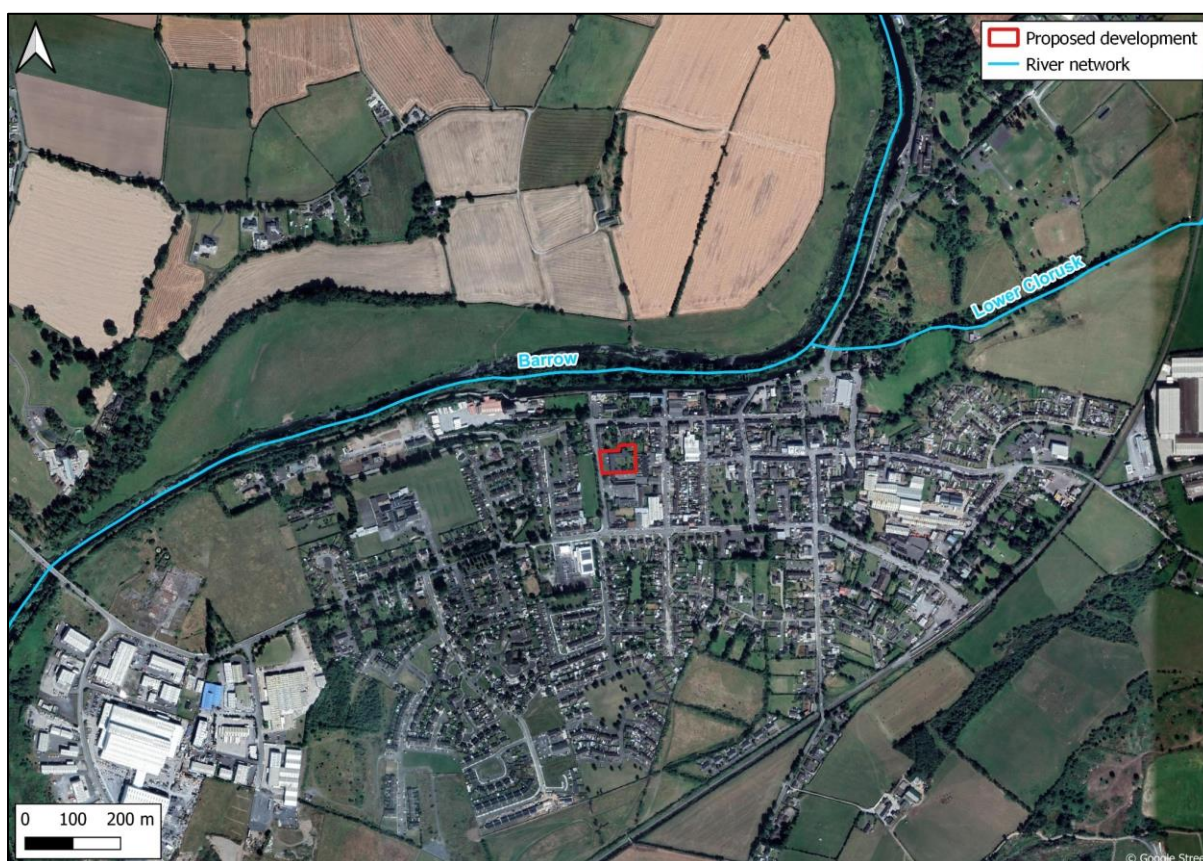


Figure 1 Location of the proposed development in context with the surroundings

An AA is required if significant effects on European sites arising from a proposed development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the proposed

¹ The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as European sites - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

For the reasons set out in detail in this AA Screening Report, an **Appropriate Assessment of the proposed development is not required in this instance** as it can be concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans or projects, will not have a significant effect on any European sites.

2 Methodology

2.1 Guidance

This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:

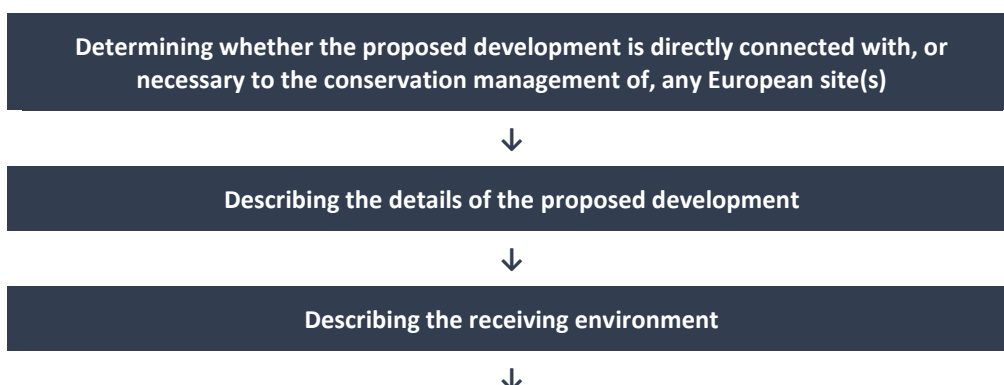
- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021)
- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision)
- *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 in Relation to Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021)
- *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)

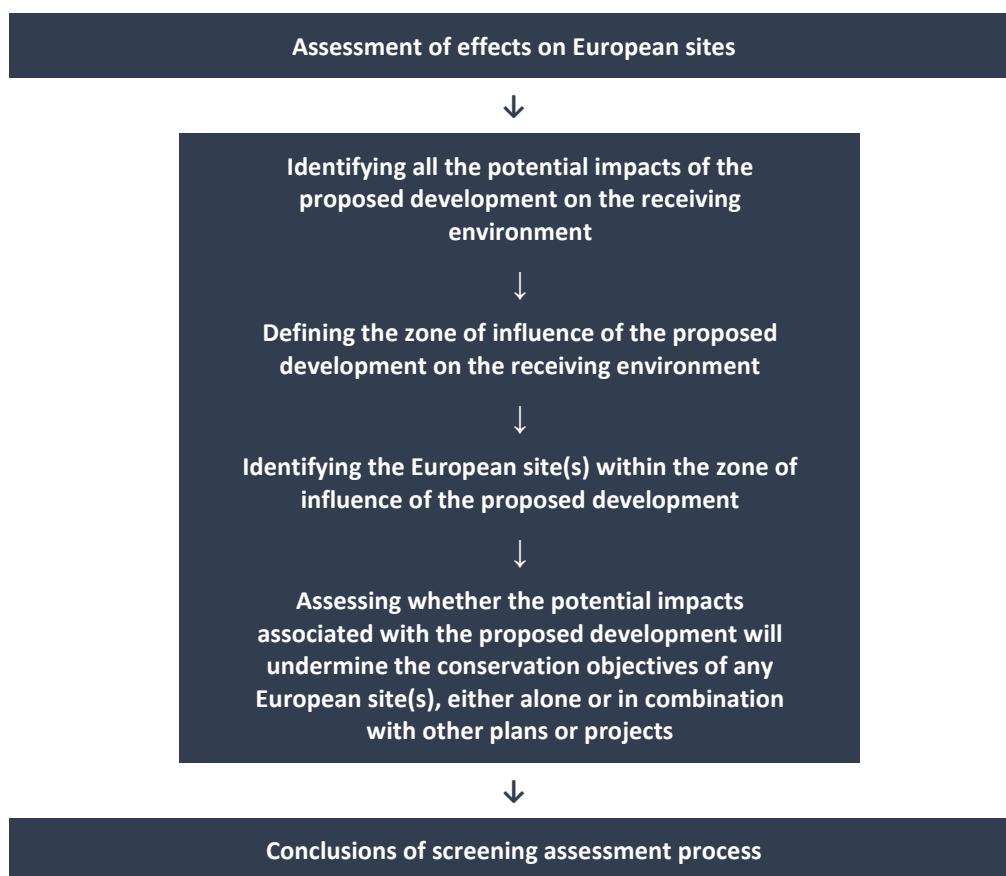
2.2 Assessment Methodology

The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).

Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).

Screening for Appropriate Assessment involves the following steps:





If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake an Appropriate Assessment.

In establishing which European sites are potentially at risk (in the absence of mitigation) from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a European site or its QI(s) or SCI(s)²), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

The identification of source-pathway-receptor connection(s) between the proposed development and European sites essentially is the process of identifying which European sites are within the Zone of Influence (Zoi) of the proposed development, and therefore potentially at risk of significant effects. The Zoi is the area over which the proposed development could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives³.

The identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g.

² The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

³ As defined in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018)

extent and duration of construction works), the characteristics of the pathway (e.g. direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g. the sensitivities of the European site and its QIs/SCIs).

The 'likely significant effects' test is based on the precautionary principle⁴. The precautionary principle means that, based on the most reliable available information, where there is uncertainty or doubt as to the absence of significant effects, the project cannot be screened out and an appropriate assessment must be carried out.

2.3 Desktop Data Review

The desktop data sources used to inform the assessment presented in this report are as follows (accessed on the 16th February 2023):

- Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie⁵, including conservation objectives documents
- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie
- Information on the location, nature and design of the proposed development supplied by the applicant's design team
- Carlow County Council (2017) *Muine Bheag/Royal Oak Local Area Plan 2017-2023*⁶
- Carlow County Council (2022) *Carlow County Development Plan 2022-2028*⁶

3 Provision of Information for Screening for Appropriate Assessment

The following sections provide information to facilitate the Appropriate Assessment screening of the proposed development to be undertaken by the competent authority.

A description of the proposed development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with

⁴ The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

The guidance document *Communication from the Commission on the Precautionary Principle* (European Commission, 2000) notes that the precautionary principle "covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection" ..

⁵ The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2023_02 and SPA_ITM_2021_10.

⁶ Available at: www.carlow.ie.

the proposed development to affect the receiving ecological environment (e.g. hydrological and hydrogeological data).

The potential impacts are examined in order to define the potential zone of influence of the proposed development on the receiving environment. This then informs the assessment of whether the proposed development will result in significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Description of the Proposed Development

The proposed development comprises of change of use of the Presentation Convent to a Community and Enterprise Centre while proposing minimal works to the building exterior. The majority of existing exterior finishes are to be retained, with the exception of windows and doors, which will be replaced for improved energy performance. The proposed development will also include 37 no. parking spaces and 2 no. electric vehicle charging points.

3.1.1 Surface water drainage

The runoff from the existing roof and the 5m wide paved access path located to the west of the building will continue to discharge into the combined foul and storm sewer network and Bagenalstown Wastewater Treatment Plant (WwTP). The runoff from all other paved areas will be conveyed overground to the proposed permeable pavement and will discharge via infiltration into the underlying soil. Sub-soil hydrological assessment of the site noted that it has a very high subsoil infiltration potential and together with permeable paving, the site has sufficient infiltration capacity to accommodate a worst case storm event⁷.

3.1.2 Foul water drainage

The existing onsite combined foul and storm sewer network will be used to convey the foul effluent associated with the development to the Bagenalstown WwTP. This existing system flows under gravity to a combined sewer on Long Range Street to the west of the proposed development. The maximum daily wastewater flow rate is calculated as 17,600l/day and the peak flow rate for foul effluent as 1.2l/s. Considering the flow rate, through the combined sewer outfall, resulting from rainfall alone is calculated as 19l/s, and together with the peak flow rate of foul effluent they add up to 20.2l/s, it is well within the flow rate capacity of the existing 150mm diameter combined sewer outfall pipe, 24l/s⁷. The proposed development does not involve any form of on-site foul water treatment or effluent discharge to the ground.⁸

3.1.3 Groundwater

There will be no works (e.g. excavations for foundations, piling) that could potentially impact groundwater.

3.1.4 Demolitions

A small section (30m²) of the existing building at the south-eastern corner is proposed to be demolished to facilitate traffic movements to the rear parking area.

⁷ BOWE Consulting Engineers (2023). *Civil Engineering Report. Presentation House, Proposed Community Enterprise Centre, Bagenalstown, Co. Carlow.*

⁸ IE Consulting (2023). *Technical Note. Proposed Community Enterprise Centre. Presentation House, Bagenalstown, Co. Carlow. Hydrological/Hydrogeological Impact.*

3.1.5 Duration of construction

The estimated duration of construction is 16 weeks.

3.2 Overview of the Receiving Environment

3.2.1 European sites

The nearest European site to the proposed development is the River Barrow and River Nore SAC; c. 120m north of the proposed development. There are no waterbodies within the proposed development site connecting the site to the SAC.

All of the European sites present in the vicinity of the proposed development are shown on Figure 2 and Figure 3 below. The QIs/SCIs of the European sites in the vicinity of the proposed development are provided in Appendix I.

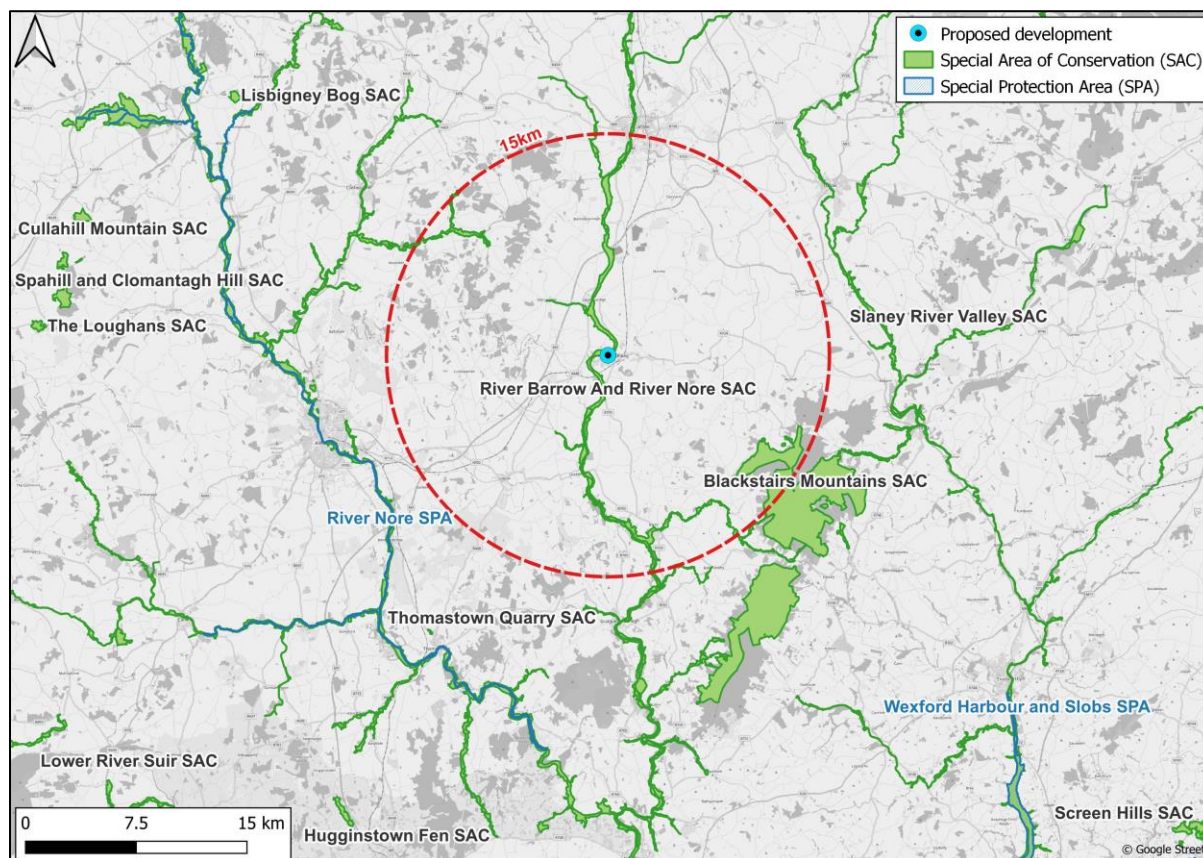


Figure 2 European sites in the vicinity of the proposed development

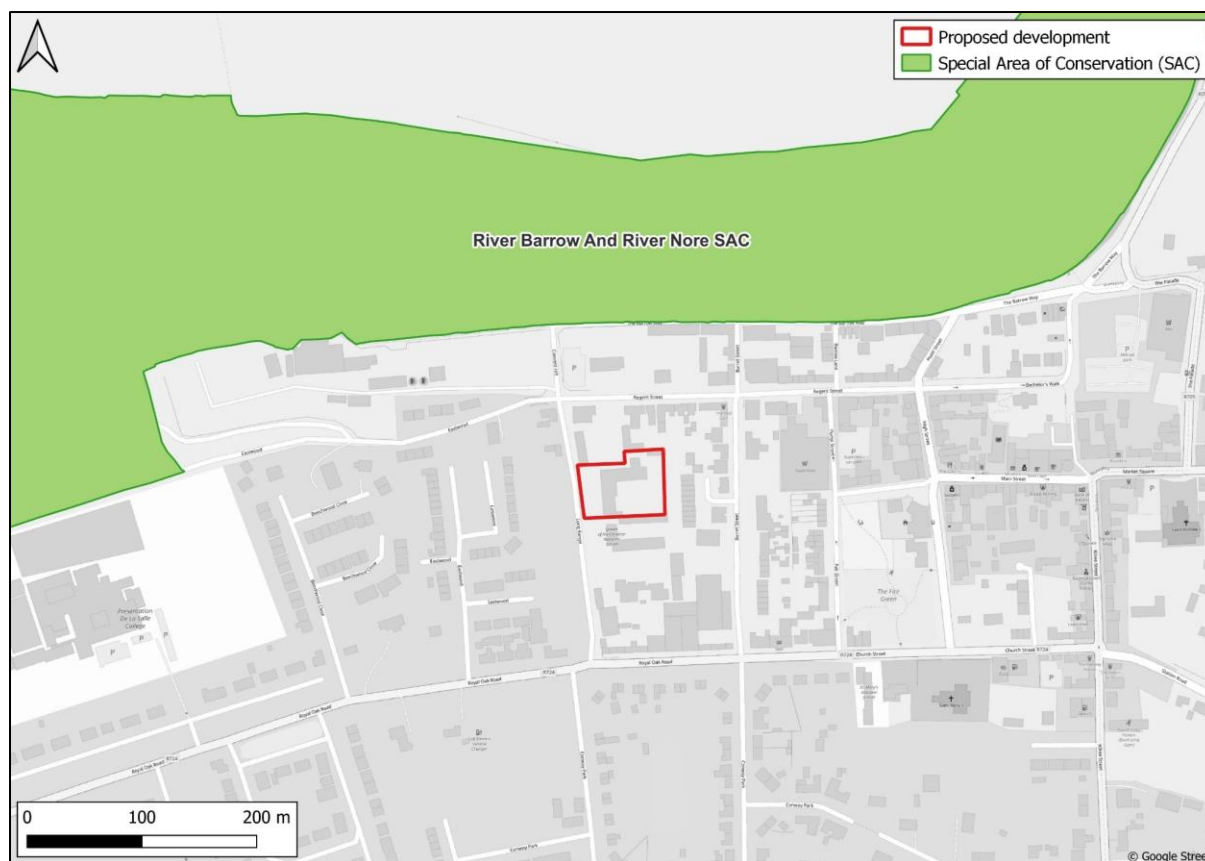


Figure 3 European sites in the immediate vicinity of the proposed development

3.2.2 Habitats

The proposed development site currently consists of hardstanding (BL3)⁹, comprising of existing structures, associated paved areas and stone walls, as well as low biodiversity value such as amenity grassland (improved) (GA2), hedgerows (WL1), and ornamental planting (see Figure 4). The surrounding lands are residential and commercial in nature, with the town centre and its shops to the west of the proposed development site. The wider locality comprises of fields of arable crops. The River Barrow runs westerly c. 120m north of the site. There are no waterbodies within or immediately adjacent to the proposed development.

⁹ Habitat codes follow those presented in Heritage Council's *A Guide to Habitats in Ireland* by Fossitt (2000).



Figure 4 Overview of habitats on the proposed development

3.2.3 Flora and Fauna Species

3.2.3.1 Flora

There are no records for protected and/or rare plant species within c. 2km of the proposed development site on the NBDC database.

With regards to records for non-native invasive flora species within c. 2km of the proposed development, the NBDC database search returned records for:

- Canadian waterweed *Elodea canadensis*
- Indian balsam *Impatiens glandulifera*
- Japanese knotweed *Reynoutria japonica*
- Spanish bluebell *Hyacinthoides hispanica*
- three-cornered garlic *Allium triquetrum*
- water fern *Azolla filiculoides*

The above species are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011. There is one record for Canadian waterweed from c. 1.2km east near the River Barrow walkway entrance from 2006. There are two records for Indian balsam, Japanese knotweed, Spanish bluebell and water fern each with the latest records from 2022, 2017, 2021 and 2008, respectively. The latest records for Indian balsam and Japanese knotweed are from c. 585m and c. 385m east, whereas the record for Spanish bluebell is located c. 150m south and for water fern, c. 775m north-east of the proposed development. The NBDC holds four records for three-cornered garlic, of which the most recent is from 2021, located c. 535m north-east of the proposed development. The records for Indian balsam, Japanese knotweed and Spanish bluebell are either from built land or brownfield sites, whereas the record

for the aquatic species, water fern, is from River Barrow and the record for the three-cornered garlic along the River Barrow walkway.

3.2.3.2 Fauna

The desktop study found records for two Annex II species, otter *Lutra lutra* and freshwater white-clawed crayfish *Austropotamobius pallipes* within c. 2km of the proposed development. Of the two records for otter, the most recent record is from 2015 and is located c. 1km north-east near the Bagenalstown Swimming Club along the River Barrow. The NBDC database holds 14 records for white-clawed crayfish, of which the most recent record (from 2014) is located c. 1.2km east near the River Barrow walkway entrance. The nearest European site designated for otter and white-clawed crayfish is the River Barrow and River Nore SAC, c. 120m north of the proposed development. There is no suitable habitat for otter or white-clawed crayfish within the proposed development site and the River Barrow and River Nore SAC is not hydrologically connected with this European site.

The desktop study found records for four SCI bird species (grey heron *Ardea cinerea*, kingfisher *Alcedo atthis*, little egret *Egretta garzetta* and mallard *Anas platyrhynchos*) within c. 2km of the proposed development. Kingfisher and little egret are both listed on the Annex I of the Birds Directive. There is no suitable habitat, e.g. agricultural grassland, wetlands or waterbodies, within the proposed development site, which may be used by SCI species for foraging and/or roosting. The nearest SPA to the proposed development site designated for SCI species returned in the desktop study is the River Nore SPA, located c. 17.5km south-west of the proposed development. The River Nore SPA is designated for kingfisher. The remaining three SCI species recorded have sites designated for them along the Irish coast and inland waterbodies. All these species can be found associated with aquatic habitats.

With regards to records for non-native invasive fauna species within c. 2km of the proposed development, the NBDC database search returned two records for eastern grey squirrel *Sciurus carolinensis* which is listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011. The most recent record (from 2012) is located c. 1km east of the proposed development.

3.2.4 Hydrology

There are no surface water features within the proposed development site (see Figure 1). The nearest waterbody is the River Barrow located c. 120m north of the proposed development site. The river has been designated as the River Barrow and River Nore SAC. There are no surface water features connecting the proposed development to the River Barrow.

The latest river Q-values for River Barrow are 'Poor' at Environmental Protection Agency (EPA) station 'BARROW – u/s Bagenalstown', located c. 1.6km upstream, and 'Moderate' at EPA station 'Royal Oak Br (LHS)', located c. 1.3km downstream of the proposed development. The Water Framework Directive (WFD) status was assessed to be 'Moderate' during the 2016-2021 reporting period and the river's risk status is 'Not at Risk'. The River Barrow has been listed under Nutrient Sensitive Areas on the EPA maps portal and as *Margaritifera* Sensitive Area on the Department Heritage and the Gaeltacht (DAHG) maps portal, due to previous records of freshwater pearl mussel *Margaritifera margaritifera*.

The proposed development is located in the Barrow catchment, Barrow_SC_100 sub-catchment and Barrow_200 sub-basin.

3.2.5 Hydrogeology

The Geological Survey of Ireland (GSI) data indicates that the site is underlain by a 'regionally important aquifer – karstified (diffuse)' and 'regionally important gravel aquifer'. The site is located in an area of 'High' groundwater vulnerability.

The Groundwater Body (GWB) underlying the site is the Athy-Bagenalstown Gravels GWB (also called Bagenalstown GWB by the GSI), which is currently classified by the EPA as having 'Poor' status and 'At Risk'. Athy-Bagenalstown Gravels GWB overlaps with one European site that is designated for groundwater

dependent terrestrial habitats, namely the River Barrow and River Nore SAC, located c. 120m north of the proposed development site.

Based on information published by GSI on the Athy-Bagenalstown Gravels GWB/Bagenalstown GWB¹⁰: *'there is hydraulic continuity between the Barrow Valley sands and gravels and the underlying aquifer. Under natural non-pumping conditions the flow regime in the aquifer is severely restricted, as there is no natural discharge down-dip. Hence 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.'*

3.3 Assessment of Effects on European Sites

This section identifies all the potential impacts associated with the proposed development, examines whether there are any European sites within the ZoI of effects from the proposed development, and assesses whether there is any risk of the proposed development resulting in a significant effect on any European site, either alone or in combination with other plans or projects.

In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

3.3.1 Habitat loss and fragmentation

The proposed development does not overlap with the boundary of any European site. Therefore, there are no European sites at risk of direct habitat loss.

As the proposed development does not traverse any European sites there is no potential for habitat fragmentation to occur.

The proposed development site does not support populations of any fauna species linked with the QI/SCI populations of any European site(s).

As the proposed development will not result in habitat loss or habitat fragmentation within any European site, there is no potential for any in combination effects to occur in that regard.

3.3.2 Habitat degradation as a result of hydrological impacts

Majority of surface water run-off and discharges, as well as foul water from the proposed development will drain to the existing local combined sewer water drainage network, which will be discharged to Bagenalstown WwTP for treatment, prior to discharge into the surface water network and the River Barrow. Therefore, the Zone of Influence (ZoI) of potential effects on water quality from the proposed development extends to the River Barrow.

Surface Water

Majority of surface water run-off and discharges from the proposed development will enter the downstream receiving environment via the existing combined sewer water drainage network. As discussed in the *Technical Note on Hydrological/Hydrogeological Impact* of the proposed development by IE Consulting⁸ (see Appendix III), the surface water runoff from the existing roof area and an existing 5m wide paved access to the west of the building will continue to discharge to the existing combined sewer, and surface water runoff from all other existing and proposed hardstanding areas will be managed via a sustainable drainage system comprising of permeable paving, with final surface water discharge to ground via infiltration. The suitability of the underlying subsoils to provide a sustainable means of infiltration of surface water runoff has been confirmed by the engineers via on-site infiltration testing. The addition of permeable paving to the site will result in a significantly reduced hydraulic volume discharge to the existing combined sewer network. The IE Consulting *Technical Note*⁸ concluded that, with respect to the proposed

¹⁰ <https://gsi.geodata.gov.ie/downloads/Groundwater/Reports/GWB/BagenalstownGWB.pdf>

surface water management, the proposed development is not expected to result in an adverse effect to the existing hydrological or hydrogeological regime of the area or to result in an adverse effect to any European, or other protected site.

Considering the above and the following, the proposed development will not have any measurable effects on water quality in the River Barrow:

- The scale and location of the proposed development relative to the receiving surface water network
- The relatively low volume of any surface water run-off or discharge events from the proposed development site relative to the receiving surface water environments
- The level of mixing, dilution and dispersion of any surface water run-off/discharges from the proposed development site in the receiving watercourses via Bagenalstown WwTP

It is an objective of the Greater Dublin Strategic Drainage Study¹¹, and the *Carlow County Development Plan 2022-2028*, to incorporate Sustainable Urban Drainage Systems (SuDS) within new developments. The SUDS features associated with the proposed development are not included within the design to avoid or reduce any potential harmful effects to any European sites.

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, the River Barrow as a result of surface water run-off or discharges.

Foul Water

The proposed development will not result in any increase in foul loading generated on site, considering it comprises of change of use of an existing building with no significant increase to occupancy rates. The foul water drainage for the proposed development will comprise of traditional foul water drainage pipes and manholes, with discharge to the existing combined sewer from where they will be conveyed to the Bagenalstown WwTP^{7,8}. Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, the River Barrow as a result of foul water discharges.

It is an objective of the Greater Dublin Strategic Drainage Study, and all development plans within the catchment of the River Barrow, to include Sustainable Urban Drainage Systems (SUDS) within new developments. The relevant development plans also have protective policies/objectives in place to protect water quality in the receiving freshwater and marine environments, and to implement the WFD in achieving good water quality status for waterbodies.

Considering the above, and that foul water discharges from the proposed development would not equate to an increase in pre-existing levels and also equates to a very small percentage of the overall discharge volumes sent to Bagenalstown WwTP for treatment, it is concluded that the proposed development will not impact on the overall water quality status of the River Barrow.

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, the River Barrow as a result of foul water discharges.

In Combination

There is potential for “*in-combination*” effects on water quality in the River Barrow from any other projects carried out within the functional areas of the *Carlow County Development Plan 2022-2028*¹², the *Wexford*

¹¹ Dublin Drainage Consultancy (2005). *The Greater Dublin Strategic Drainage Study*. Final Strategy Report.

¹² Carlow County Council (2022). *Carlow County Development Plan 2022 - 2028*. Available at: www.carlow.ie.

*County Development Plan 2022 – 2028*¹³, and *Kilkenny City and County Development Plan 2021 - 2027*¹⁴, or any other land use plans which could influence conditions in the River Barrow via its tributaries and other surface water features.

The *Regional Spatial & Economic Strategy for the Southern Region*¹⁵) includes a range of policy objectives relevant to the protection of European sites and the protection of water quality, to which the relevant planning authorities must have regard to in the preparation and adoption of their development plans (included in Appendix II).

The planning authority for the proposed development is Carlow County Council (CCC). Plans and developments within Carlow County must comply with the following policy objectives of the *Carlow County Development Plan 2022 – 2028* relevant to the protection of European sites and the protection of water quality in surface water network:

PW. P2: Facilitate Irish Water in the delivery of public wastewater services which address the residential, commercial and industrial needs of the county subject to compliance with all relevant EU and national legislation and normal planning and environmental criteria.

PW. O1: Facilitate the required upgrade of wastewater projects that may arise during the lifetime of this Plan subject to compliance with all relevant EU and national legislation and normal planning and environmental criteria including upgrade and improvement works on current and planned IW schemes for Tullow WWTP, Bagenalstown/Leighlinbridge WWTP, Mortarstown WWTP, and Borris WWTP.

SW. P1: Ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the River Basin Management Plan.

SW. P2: Ensure as an alternative to underground tanks and piped outfalls to watercourses, that all development proposals incorporate Sustainable Drainage Systems and to promote the use of green infrastructure e.g. green roofs, green walls, planting and green spaces for surface water retention purposes, as an integrated part of SuDS and maximise the multi-functional potential of these systems including benefits for biodiversity and amenity value wherever possible.

SW. P3: Require appropriate maintenance of surface water drainage infrastructure to avoid flood risk.

SW. P4: To require all new developments, to provide for separated drainage systems.

SW. P5: Seek to minimise in as far as is practical the discharge of additional and existing surface water to combined (foul and surface water) sewers (in existing combined sewer serviced areas) in order to maximise the capacity of existing collection systems for foul water.

SW. P6: Require all new developments to provide a separate foul and surface water drainage system and to incorporate sustainable urban drainage systems where appropriate / viable in new development and the public realm.

SW. O1: Require all development (including extensions to existing development) proposals to incorporate design criteria and SuDS measures in accordance with Carlow County Council SuDS Policy in order to reduce the potential impact of existing and predicted flood risks and to improve biodiversity and amenity value.

¹³ Wexford County Council (2022). *Wexford County Development Plan 2022 – 2028*. Available at: www.wexfordcoco.ie.

¹⁴ Kilkenny County Council (2021). *Kilkenny City and County Development Plan 2021 – 2027*. Available at: www.kilkennycoco.ie.

¹⁵ Southern Regional Assembly (2020). *Regional Spatial & Economic Strategy*. Available at: www.southernassembly.ie.

WQ. P1: Support the implementation of the relevant recommendations and measures as outlined in the River Basin Management Plan 2018-2021, and any associated Programme of Measures, or any such plan that may supersede same during the lifetime of this Plan. Development proposals shall not have an unacceptable impact on the water environment, including headwaters, surface waters, groundwater quality and quantity, river corridors and associated habitats. The Council will support the application and implementation of a catchment planning and management approach to development and conservation. Site specific assessments to determine localised pressures / impacts may be required as part of the development management process.

WQ. P2: Promote and comply with the environmental standards and objectives established for (i) bodies of surface water, by the European Communities (Surface Water) Regulations 2009 and (ii) groundwater, by the European Communities (Groundwater) Regulations 2010 or as may be amended during the period of this Plan.

WQ. P3: Ensure that the Water Framework Directive, the River Basin Management Plan and any subsequent Water Management Plans or statutory guidance are fully considered throughout the planning process.

WQ. O2: Work with the Local Authority Waters Programme and other relevant State agencies to develop and implement the River Basin Management Plan 2018-2021, and any updates subject to compliance with the Habitats Directive.

WQ. O3: Implement the Blue Dot Catchment network programme under the RBMP to protect and maintain the excellent 'High' status water bodies.

NH. O1: Implement relevant actions from the National Biodiversity Action Plan 2017-2021 (and any superseding plan) and to prepare a County Heritage Plan and Biodiversity Action Plan during the lifetime of this County Development Plan in accordance with RPO 126 in the RSES, to ensure the protection and appreciation of heritage and nature at local level including recognition of rich biodiversity of designation of existing special areas of conservation i.e. Blackstairs Mountains, Slaney River Valley and River Barrow and River Nore SAC.

NS. P1: Support the conservation and enhancement of Natura 2000 Sites, and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

NS. P2: Screening for Appropriate Assessment and if required Appropriate Assessment is undertaken for all plans to be adopted and projects to be granted permission/authorised by the Council. Where likely significant effects have been identified in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site, either individually or in combination with other plans or projects, ensure appropriate assessment, in accordance with Article 6(3) of the Habitats Directive. The Council shall only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned, unless the plan or project is subject to the provisions of Article 6(4) of the Habitats Directive.

NS. P3: Consider impacts within a plan or project's zone of influence, which may include Natura 2000 sites outside the County, when assessing whether a plan or project is likely to have significant effects on Natura 2000 sites.

NS. O1: Strictly protect areas designated or proposed to be designated as Natura 2000 sites, including any areas that may be proposed for designation or designated during the period of this Plan.

ND. P2: Ensure that development does not have a significant adverse impact on rare and threatened species, their breeding places, resting places, habitat or environment, as applicable, including those protected under the Wildlife Acts 1976 to 2021, the Birds Directive (2009/147/EC), the Habitats Directive (92/43/EEC) and including plant species listed on the Flora (Protection) Order 2015 (S.I. No. 356 of 2015).

IW. P2: Ensure that the County's watercourses are retained for their biodiversity and flood protection values and to conserve and enhance where possible, the wildlife habitats of the County's rivers, streams and riparian zones, including those which occur outside of designated areas, in order to provide a network of habitats and biodiversity corridors throughout the County.

IW. P7: Require that runoff from a development area will not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the developed area prior to discharge to local watercourses.

IW. P9: Ensure that development proposals do not adversely affect groundwater resources and groundwater dependent habitats and species.

Plans and developments within the other local authority areas which could influence conditions in the River Barrow via its tributaries and other surface water features, also must comply with the policies and objectives relevant to the protection of European sites and water quality. These include the *Wexford County Development Plan 2022 – 2028*, and *Kilkenny City and County Development Plan 2021-2027*. The relevant policies and objectives in those plans for the protection of European sites and water quality are included in Appendix II.

As noted under the surface water and foul water sections above, the River Barrow currently has a 'Moderate' WFD status and the proposed development will not result in any measurable effect on water quality in the River Barrow. There are also protective policies and objectives in place at a strategic planning level to protect water quality in the River Barrow.

Therefore, and having regard to the policies and objectives referred to under the relevant development plans, it is concluded that the possibility of any other plans or projects acting in combination with the proposed development to give rise to significant effects on any European site in, or associated with, the River Barrow can be excluded.

3.3.3 *Habitat degradation as a result of hydrogeological impacts*

There is one European site within c. 120m north of the proposed development whose QI habitats are groundwater-dependant in nature. This is the River Barrow and River Nore SAC.

The proposed development and the River Barrow and River Nore SAC and its groundwater dependent QI habitats ('petrifying springs with tufa formation (Cratoneurion)*[7220]' and 'alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]') are contained within the Athy-Bagenelstown GWB/Bagenelstown GWB. There are no records of these habitats within the immediate vicinity of the proposed development on the NPWS database. The nearest record for 'alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]' is from c. 16km south and downstream of the proposed development, whereas the exact locations of the 'petrifying springs with tufa formation (Cratoneurion)*[7220]' have not been provided.

There will be no likely significant effects on the River Barrow and River Nore SAC as a result of the proposed development for the following reasons:

- The groundwater flow of the Athy-Bagenelstown GWB/Bagenelstown GWB is generally severely restricted under natural non-pumping conditions (refer to Section 3.2.5). Therefore, even in the event that the groundwater body underlying the proposed development was affected by the proposed development, it would not have a significant effect on the River Barrow and River Nore SAC due to the fact that groundwater circulation is limited; and,
- The groundwater body is described as having "High" vulnerability to impacts from human activities. The proposed development does not entail any works that may affect groundwater levels. Considering this, there is no potential for impacts on the underlying groundwater body as the proposed development does not include any activities which could result in impacts to groundwater.

As the proposed development will not entail any activities which could potentially result in verse effects to groundwater dependent habitats in any European sites, there will be no adverse hydrogeological effect to these sites.

As the proposed development will not result in any adverse hydrogeological effects to European Sites, there is no potential for any in combination effects to occur in that regard.

3.3.4 *Habitat degradation as a result of introducing/spreading non-native invasive species*

The proposed development site comprises mainly of existing hard standing and amenity grassland that does not support any non-native invasive species which could be accidentally spread or introduced to habitats within European sites.

3.3.5 *Disturbance and displacement impacts*

Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the proposed development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m¹⁶. For birds, disturbance effects would not be expected to extend beyond a distance of c. 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance¹⁷.

There is no suitable habitat for otter within the proposed development site, however the River Barrow and River Nore SAC, located c. 120m north of the proposed development, has been designated for otter and there are records of the species within the river. The SAC and River Barrow are located within the Zol of potential adverse construction and operational stage noise effects from the proposed development. Considering the SAC and River Barrow are shielded from construction and operational stage noise by two separate rows of residential dwellings, as well as due to pre-existing background noise associated with traffic and residential dwellings in the surroundings, it is considered that any potential noise associated with the construction or operational stages will not have any perceptible effect on otters using the River Barrow and the SAC.

There are no SPAs within the Zol of disturbance and displacement impacts. There is no suitable foraging and/or roosting habitat (e.g. wetlands or large open areas of amenity grassland) for SCI bird species within the proposed development site. Although the agricultural lands located c. 350m north of the proposed development are potentially used by wintering birds with preferences for inland feeding sites for foraging and/or roosting, they are located beyond the c. 300m Zol for disturbance and displacement. Additionally, Annex I species kingfisher may use River Barrow for foraging and commuting, however there will be no disturbance and displacement impacts on the species for the same reasons as outlined for otter above.

As the proposed development will not result in the disturbance/displacement of the QI/SCI species of any European site, there is no potential for in combination effects to occur in that regard.

3.3.6 *Summary*

The potential impacts associated with the proposed development do not have the potential to affect the receiving environment and, consequently, do not have the potential to affect the conservation objectives

¹⁶ This is consistent with Transport Infrastructure Ireland (TII) guidance (*Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes* and *Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes*) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual Zol of construction related disturbance likely to be much less in reality.

¹⁷ Cutts, N., Phelps & A., Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impact and Guidance*. Report prepared by the Institute of Estuarine and Coastal Studies University of Hull and Humber INCA.

supporting the QI/SCIs of any European sites. Therefore, the proposed development is not likely to have significant effects on any European sites.

As the proposed development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites, and taking into account the policies and objectives of the statutory plans referred to above, it is concluded that there is no potential for any other plan or project to act in combination with it to result in significant effects on any European sites.

The potential impacts of the proposed development on the receiving environment, their Zol, and the European sites at risk of significant effects are summarised in Table 1 below. In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

Table 1 Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In Combination Effects and the Zol of the Potential Effects	Are there any European sites within the Zol of the proposed development?
Habitat loss Habitat loss will be confined to the lands within the proposed development boundary.	No There are no European sites within the proposed development boundary
Habitat degradation as a result of hydrological impacts Habitats and species downstream of the proposed development site and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.	No There are no European sites at risk of hydrological effects associated with the proposed development
Habitat degradation as a result of hydrogeological impacts Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.	No There are no European sites at risk of hydrogeological effects associated with the proposed development
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the proposed development site.	No The proposed development site comprises mainly of existing hard standing and amenity grassland, and therefore, there is no risk associated with the proposed development to any European sites from the spread/introduction of non-native invasive species
Disturbance and displacement impacts Potentially up to several hundred metres from the proposed development boundary, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the proposed development, taking into account the sensitivity of the qualifying interest species to disturbance effects	No There are no European sites within the potential zone of influence at risk of disturbance effects associated with the construction or operational stages of the proposed development

4 Conclusions of Screening Assessment Process

Following an examination, analysis and evaluation of the best available information, and applying the precautionary principle, it can be concluded that the possibility of any significant effects on any European sites, whether arising from the project alone or in combination with other plans and projects, can be excluded, for the reasons set out in Section 3.3 above. In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.

Therefore, it is the professional opinion of the authors of this report that the application for consent for the proposed development does not require an Appropriate Assessment or the preparation of a Natura Impact Statement (NIS).

Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1).

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Special Area of Conservation (SAC)	
<p>River Barrow and River Nore SAC [002162]</p> <p>1130 Estuaries</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1170 Reefs</p> <p>1310 <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</p> <p>4030 European dry heaths</p> <p>6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</p> <p>7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)*</p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <p>1016 Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i></p> <p>1029 Freshwater pearl mussel <i>Margaritifera margaritifera</i></p> <p>1092 White-clawed crayfish <i>Austropotamobius pallipes</i></p> <p>1095 Sea lamprey <i>Petromyzon marinus</i></p> <p>1096 Brook lamprey <i>Lampetra planeri</i></p> <p>1099 River lamprey <i>Lampetra fluviatilis</i></p> <p>1103 Twaité shad <i>Alosa fallax fallax</i></p> <p>1106 Salmon <i>Salmo salar</i></p> <p>1355 Otter <i>Lutra lutra</i></p> <p>1421 Killarney fern <i>Trichomanes speciosum</i></p> <p>1990 Nore pearl mussel <i>Margaritifera durrovensis</i></p> <p>NPWS (2011) <i>Conservation Objectives: River Barrow and River Nore SAC 002162</i>. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. ¹⁸</p>	<p>The proposed development lies c. 120m north of the proposed development</p>

¹⁸ The versions of the conservation objectives documents referenced in this table are the most recent published versions at the time of writing

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>Blackstairs Mountains SAC [000770] 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths</p> <p><i>S.I. No. 90/2019 - European Union Habitats (Blackstairs Mountains Special Area Of Conservation 000770) Regulations 2019.</i> NPWS (2019) <i>Conservation Objectives: Blackstairs Mountains SAC 000770</i>. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>The proposed development lies c. 11.8km south-east of the proposed development</p>
Special Protection Area (SPA)	
<p>River Nore SPA [004233] A229 Kingfisher <i>Alcedo atthis</i></p> <p><i>S.I. No. 193/2012 - European Communities (Conservation of Wild Birds (River Nore Special Protection Area 004233)) Regulations 2012.</i> NPWS (2022) <i>Conservation objectives for River Nore SPA [004233]</i>. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.</p>	<p>The proposed development lies c. 17.5km south-west of the proposed development</p>

Appendix II

Planning polices/objectives relating to the protection of European sites and water quality.

Regional Spatial & Economic Strategy for the Southern Region

RPO 1

a. Any reference to support for all plans, projects, activities and development in the RSES should be considered to refer to 'environmentally sustainable development' that has no adverse effects on the integrity of European sites and no net loss of biodiversity, that shall be subject to appropriate feasibility studies, best practice site/route selection (to consider environmental constraints such as landscape, cultural

heritage, the protection of water quality, flood risks and biodiversity as a minimum), environmental assessment including EclA to support development management and where required, the completion of statutory SEA, EIA and AA processes as appropriate.

b. The RSES seeks to protect, manage, and through enhanced ecological connectivity, improve the coherence of the Natura 2000 Network in the Southern Region.

c. RSES support for other plans/programmes (and initiatives arising) is on the basis of appropriate SEA, SFRA, EIA and AA processes being undertaken in order to ensure the avoidance of adverse effects on European Sites and ensure implementation of mitigation measures where required.

d. Development Plans shall include an objective for the protection of European sites and Natural Heritage Areas (designated and notified proposed NHAs).

RPO 11

i. That any reference to support for all plans, projects, activities and development in the Key Towns should be considered to refer to 'environmentally sustainable development' that shall be subject to appropriate feasibility studies, best practice site/route selection (to consider environmental constraints), environmental assessment including EclA to support development management and where required, the completion of statutory SEA, EIA and AA processes as appropriate;

j. That local authorities consider the carrying capacity of SACs/SPAs, as appropriate, to inform the appropriate growth rates for Key Towns;

k. To plan increasing population growth in all Key Towns on a phased basis in collaboration with IrishWater, the local authority and other stakeholders to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality and avoids adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network;

l. To give due consideration to the suitability of new and/or existing drinking water sources (e.g. hydro morphological pressures) to meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network. The National Water Resources Plan (NWRP) will outline how we move towards a sustainable, secure and reliable public drinking water supply over the next 25 years, whilst safeguarding our environment.

RPO 89

b. Local Authorities and other public agencies shall continue to work with the Office of Public Works to implement the Flood Risk Management Plans and address existing and potential future flood risks arising from coastal, fluvial, pluvial, groundwater and potential sources of flood risk.

RPO 111

It is an objective to ensure the efficient and sustainable use and development of water resources and water services infrastructure to manage and conserve water resources in a manner that supports a healthy society, economic development requirements and a cleaner environment.

RPO 112

It is an objective to support commitments to achieve and maintain "At Least Good" status, except where more stringent obligations are required, and no deterioration of status for all water bodies under the Marine Strategy Framework Directive and its programme of measures, the Water Framework Directive and the River Basin Management Plan. Key challenges include, inter alia, the need to address significant deficits in urban

waste-water treatment and water supply, addressing flooding and increased flood risks from extreme weather events and increased intense rainfall because of climate change.

RPO 121

It is an objective to:

- a. Ensure a cross-agency collaborative approach to implementing the River Basin Management Plan. Planning authorities will be consistent with the Plan through their land use plans and strategies;
- b. Ensure effective co-ordination between the requirements of the Floods Directive and the Water Framework Directive;
- c. Promote a catchment-based approach to water management to facilitate cross boundary collaboration and shared responsibility at a regional level. The RSES supports bottom-up community initiatives through the integrated catchment management approach. The RSES recognises that there are opportunities for a collaborative regional approach to address issues such as invasive species.
- d. The RSES supports the work of the Local Authority Waters Programme in promoting an integrated approach to catchment management as part of the implementation of the RSES.

RPO 122

It is an objective to:

- a. Promote the integration of sustainable water management solutions such as the use of SuDs. Future development and Local Area Plans in the Region should include objectives and actions to encourage the integration of sustainable water management solutions such as the use of SuDs;
- b. Promote the diversion of surface water from combined sewers where possible.

RPO 123

- a. The RSES recognises that planning is critically important to the management of water resources. It is an objective to encourage the better integration of water issues into planning authority land-use plans and strategies;
- b. It is an objective to encourage the integration of river corridors with blue green infrastructure in settlements. The guidance document "Planning for Watercourses in the Urban Environment" published by Inland Fisheries Ireland provides an integrated watercourse protection strategy.

RPO 126

- a. Promote biodiversity protection and habitat connectivity both within protected areas and in the landscape through promoting the integration of green infrastructure and ecosystem services, including landscape, heritage, biodiversity and management of invasive and alien species in the preparation of statutory and non-statutory land-use plans. The RSES recognises the role of the National Biodiversity Data Centre through its Citizen Science initiatives;
- b. Support local authorities acting together with relevant stakeholders in implementing measures designed to identify, conserve and enhance the biodiversity of the Region; seek and support the implementation of the All-Ireland Pollinator Plan, National Biodiversity Action Plan and National Raised Bog SAC Management Plan;
- c. Local Authorities are required to carry out required screening of proposed projects and any draft land-use plan or amendment/variation to any such plan for any potential ecological impact on areas designated or proposed for inclusion as Natura 2000/European Sites and shall decide if an Appropriate Assessment is necessary, of the potential impacts of the project or plan on the conservation objectives of any Natura 2000/European Site;
- d. Support local authorities to carry out, monitor and review biodiversity plans throughout the Region. Planning authorities should set objectives in their land use plans to implement and monitor the actions as set out in the National and County Biodiversity Plans, as the conservation of biodiversity is an essential component of sustainable development. Local authorities should address the issue of fisheries protection and invasive introduced species and encourage the use of native species for landscape planting in rural areas, in the review of their biodiversity plans;
- e. Support local authorities to work with all stakeholders to conserve, manage and where possible enhance the Regions natural heritage including all habitats, species, landscapes and geological heritage of conservation interest and to promote increased understanding and awareness of the natural heritage of the Region.

RPO 127

It is an objective to:

- a. Support coordination between the Region's local authorities in terms of their measures to survey invasive species in their counties and coordinate regional responses;
- b. Encourage greater awareness of potential threats caused by invasive species and how they are spread;
- c. Carefully consider and implement the management of invasive species where there is a corridor, such as hydrological connections to European Sites in order to prevent the spread of invasive to sensitive sites.

RPO 208

It is an objective to:

- a. Support the implementation of Irish Water Investment Plans (prepared in five-year cycles) and subsequent investment plans and seek such plans to align the supply of water services with the settlement strategy and objectives of the RSES and Metropolitan Area Strategic Plans for Cork, Limerick Shannon and Waterford;
- b. Support the role of Irish Water Investment Plans in taking into account seasonal pressures on critical service infrastructure, climate change implications and leakage reduction in the design of all relevant projects;
- c. Deliver and phase services, subject to the required appraisal, planning and environmental assessment processes and avoid adverse impacts on the integrity of the Natura 2000 network;
- d. Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure led growth to meet demands on the water supply, suitability of new and/or existing drinking water sources (for example hydro morphological pressures) and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

RPO 209

It is an objective to support investment and the sustainable development of strategic water supply projects by Irish Water and relevant local authorities, arising from initiatives including Investment Plans, 25 Year Water Supply Plans for our Region's cities and metropolitan areas, leakage reduction programmes and initiatives through the National Water Resources Plan subject to appropriate environmental assessment and the planning process.

RPO 210

It is an objective to support the development of Drinking Water Protection Plans in line with the requirements of the Water Framework Directive and the current and future cycles of the River Basin Management Plans. In this regard, the RSES supports the inclusion of objectives in County Development Plans relating to the provision of mitigation and protection measures for all protected areas, including Drinking Water Protected areas and associated Source Protection Plans.

RPO 214

It is an objective to support Irish Water and the relevant local authorities in the Region to eliminate untreated discharges from settlements in the short-term, while planning strategically for the long-term in tandem with Project Ireland 2040 and the RSES and in increasing compliance with the requirements of the EU Urban Waste Water Treatment Directive.

RPO 217

It is an objective to support the relevant local authorities (and Irish Water where appropriate) to improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment.

RPO 218

It is an objective to support the incorporation of Sustainable Urban Drainage Systems (SUDs) in all public and private development in urban areas. The local authorities shall include objectives requiring the incorporation of SUDs in local authority development plans and Local Area Plans, promote greater rainwater harvesting by households and businesses for the diversion of storm water from combined sewers (where possible), so that within developments and in the wider public realm, opportunities for SUDs and rainwater harvesting maximise capacity to cater for infill, brownfield and new development in sewer networks and treatment plants.

Carlow County Development Plan 2022-2028**PW. P2:**

Facilitate Irish Water in the delivery of public wastewater services which address the residential, commercial and industrial needs of the county subject to compliance with all relevant EU and national legislation and normal planning and environmental criteria.

PW. O1:

Facilitate the required upgrade of wastewater projects that may arise during the lifetime of this Plan subject to compliance with all relevant EU and national legislation and normal planning and environmental criteria including upgrade and improvement works on current and planned IW schemes for Tullow WWTP, Bagenalstown/Leighlinbridge WWTP, Mortarstown WWTP, and Borris WWTP.

SW. P1:

Ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the River Basin Management Plan.

SW. P2:

Ensure as an alternative to underground tanks and piped outfalls to watercourses, that all development proposals incorporate Sustainable Drainage Systems and to promote the use of green infrastructure e.g. green roofs, green walls, planting and green spaces for surface water retention purposes, as an integrated part of SuDS and maximise the multi-functional potential of these systems including benefits for biodiversity and amenity value wherever possible.

SW. P3:

Require appropriate maintenance of surface water drainage infrastructure to avoid flood risk.

SW. P4:

To require all new developments, to provide for separated drainage systems.

SW. P5:

Seek to minimise in as far as is practical the discharge of additional and existing surface water to combined (foul and surface water) sewers (in existing combined sewer serviced areas) in order to maximise the capacity of existing collection systems for foul water.

SW. P6:

Require all new developments to provide a separate foul and surface water drainage system and to incorporate sustainable urban drainage systems where appropriate / viable in new development and the public realm.

SW. O1:

Require all development (including extensions to existing development) proposals to incorporate design criteria and SuDS measures in accordance with Carlow County Council SuDS Policy in order to reduce the potential impact of existing and predicted flood risks and to improve biodiversity and amenity value.

WQ. P1:

Support the implementation of the relevant recommendations and measures as outlined in the River Basin Management Plan 2018-2021, and any associated Programme of Measures, or any such plan that may supersede same during the lifetime of this Plan. Development proposals shall not have an unacceptable impact on the water environment, including headwaters, surface waters, groundwater quality and quantity, river corridors and associated habitats. The Council will support the application and implementation of a catchment planning and management approach to development and conservation. Site specific assessments to determine localised pressures / impacts may be required as part of the development management process.

WQ. P2:

Promote and comply with the environmental standards and objectives established for (i) bodies of surface water, by the European Communities (Surface Water) Regulations 2009 and (ii) groundwater, by the European Communities (Groundwater) Regulations 2010 or as may be amended during the period of this Plan.

WQ. P3:

Ensure that the Water Framework Directive, the River Basin Management Plan and any subsequent Water Management Plans or statutory guidance are fully considered throughout the planning process.

WQ. P4:

Encourage the use of catchment sensitive farming practices in order to meet Water Framework Directive targets and comply with the RBMP.

WQ. O2:

Work with the Local Authority Waters Programme and other relevant State agencies to develop and implement the River Basin Management Plan 2018-2021, and any updates subject to compliance with the Habitats Directive.

WQ. O3:

Implement the Blue Dot Catchment network programme under the RBMP to protect and maintain the excellent 'High' status water bodies.

FR. O3:

Seek to ensure that where flood risk management works take place that the cultural and natural heritage of rivers, streams and watercourses are protected, and improved where possible.

NH. P1:

Protect, manage and enhance the natural heritage, biodiversity, landscape and environment of County Carlow in recognition of its importance as a non-renewable resource, a unique identifier, and as a natural resource asset.

NH. P2:

Ensure, as far as is practicable, that development does not adversely impact on wildlife habitats and species, and that biodiversity is conserved for the benefit of future generations in the interests of sustainability. This will include moving towards no net loss of biodiversity from plans adopted by and projects granted permission/authorised by the Council.

NH. P5:

Recognise that nature conservation is not just confined to designated sites and acknowledge the need to protect non-designated biodiversity, habitats and species not otherwise protected by legislation.

NH. P9:

To promote the carrying out of ecological/habitat assessments to inform the layout and design of development proposals and ensure they integrate the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate.

NH. O1:

Implement relevant actions from the National Biodiversity Action Plan 2017-2021 (and any superseding plan) and to prepare a County Heritage Plan and Biodiversity Action Plan during the lifetime of this County Development Plan in accordance with RPO 126 in the RSES, to ensure the protection and appreciation of heritage and nature at local level including recognition of rich biodiversity of designation of existing special areas of conservation i.e. Blackstairs Mountains, Slaney River Valley and River Barrow and River Nore SAC.

NS. P1:

Support the conservation and enhancement of Natura 2000 Sites, and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

NS. P2:

Screening for Appropriate Assessment and if required Appropriate Assessment is undertaken for all plans to be adopted and projects to be granted permission/authorised by the Council. Where likely significant effects have been identified in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site, either individually or in combination with other plans or projects, ensure appropriate assessment, in accordance with Article 6(3) of the Habitats Directive. The Council shall only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned, unless the plan or project is subject to the provisions of Article 6(4) of the Habitats Directive.

NS. P3:

Consider impacts within a plan or project's zone of influence, which may include Natura 2000 sites outside the County, when assessing whether a plan or project is likely to have significant effects on Natura 2000 sites.

NS. O1:

Strictly protect areas designated or proposed to be designated as Natura 2000 sites, including any areas that may be proposed for designation or designated during the period of this Plan.

NHA. P2:

Ensure that development proposals within or adjacent to a proposed Natural Heritage Area (pNHA) or Natural Heritage Area (NHA) are designed and sited to minimise significant impacts on the biodiversity (including net loss) and ecological, geological and landscape value of the site, particularly plant and animal species listed under the Wildlife Act 1976 (as amended), the Habitats Directive and the Birds Directive, including their habitats.

ND. P1:

Conserve the existing flora, fauna and wildlife habitats in the County, including rare and threatened plant, animal and bird species, through the preservation of ecological corridors and ecological networks.

ND. P2:

Ensure that development does not have a significant adverse impact on rare and threatened species, their breeding places, resting places, habitat or environment, as applicable, including those protected under the Wildlife Acts 1976 to 2021, the Birds Directive (2009/147/EC), the Habitats Directive (92/43/EEC) and including plant species listed on the Flora (Protection) Order 2015 (S.I. No. 356 of 2015).

ND. P3:

Require the submission of an Ecological Impact Assessment, where deemed necessary, for any development proposal likely to have a significant impact on existing flora, fauna and wildlife habitats, including rare and threatened plant, animal and bird species.

ND. P4:

Ensure that, where evidence exists of species that are protected under the Wildlife Act 1976 (as amended), the Bird Directive 1979, and the Habitats Directive 1992, appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment. In the event of a proposed development impact on a site known to be a breeding or resting site of species listed in the Habitats Regulations or the Wildlife Act 1976 (as amended) a derogation licence, issued by the Department of Housing, Local Government and Heritage, may be required.

IW. P2:

Ensure that the County's watercourses are retained for their biodiversity and flood protection values and to conserve and enhance where possible, the wildlife habitats of the County's rivers, streams and riparian zones, including those which occur outside of designated areas, in order to provide a network of habitats and biodiversity corridors throughout the County.

IW. P7:

Require that runoff from a development area will not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the developed area prior to discharge to local watercourses.

IW. P9:

Ensure that development proposals do not adversely affect groundwater resources and groundwater dependent habitats and species.

Wexford County Development Plan 2022-2028

Objective EM02

To ensure that planning permission will only be granted for a development proposal that, either individually or in combination with existing and/or proposed plans or projects, will not have a significant effect on a European site, or where such a development proposal is likely or might have such a significant effect (either alone or in combination), the planning authority will, as required by law, carry out an appropriate assessment as per requirements of Article 6(3) of the Habitats Directive 92/43/EEC of the 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as transposed into Irish legislation. Only after having ascertained that the development proposal will not adversely affect the integrity of any European site,

will the planning authority agree to the development and impose appropriate mitigation measures in the form of planning conditions. A development proposal which could adversely affect the integrity of a European site may only be permitted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation.

Objective EM04

To ensure that plans, including land use plans, will only be adopted, if they either individually or in combination with existing and/or proposed plans or projects, will not have a significant effect on a European site, or where such a plan is likely or might have such a significant effect (either alone or in combination). Wexford County Council will, as required by law, carry out an appropriate assessment as per requirements of Article 6(3) of the Habitats Directive 92/43/EEC of the 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as transposed into Irish legislation. Only after having ascertained that the plan will not adversely affect the integrity of any European site, will Wexford County Council adopt the plan, incorporating any necessary mitigation measures. A plan which could adversely affect the integrity of a European site may only be adopted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation.

Objective EM05

To implement the provisions of EU and National legislation and other relevant legislative requirements on protecting and improving surface and ground water quality, air quality and climate, and on reducing adverse noise and light nuisance, as appropriate and in conjunction with all relevant stakeholders in the interests of the protection of the environment, public health and the sustainable development of the county.

Objective NH01

To ensure the protection of all designated ecological sites (as detailed in Section 13.2.1 to 13.2.11) in relevant Local Area Plans and in the assessment of planning applications and promote the restoration of sites where required.

Objective NH03

To promote biodiversity protection, restoration and habitat connectivity both within protected areas and in the landscape through promoting the integration of green infrastructure and ecosystem services, including landscape, heritage and biodiversity and management of invasive and alien species in the plan making and development management processes.

Objective NH04

To protect the integrity of sites designated for their habitat and species importance and prohibit development which would damage or threaten the integrity of these sites. Such sites include Special Areas of Conservation (SACs) and candidate SACs, Special Protection Areas (SPAs), Natural Heritage Areas (NHAs) and proposed NHAs, Nature Reserves, Refuges for Fauna and RAMSAR sites. To protect protected species wherever they occur.

Objective NH05

In assessing planning applications located in and/or in proximity to Natura 2000 sites, whether hydraulically linked or otherwise linked or dependent (such as feeding, roosting or nesting grounds) to a designated site, regard shall be had to the detailed conservation management plans and data reports prepared by NPWS, where available, to the identified features of interest of the site, the identified conservation objectives to ensure the maintenance or restoration of the features of interests to favourable conservation status, the NPWS Article 17 current conservation status reports, the underlying site specific conditions, and the known threats to achieving the conservation objectives of the site.

Objective NH08

To ensure that any plan/project and any associated works, individually or in combination with other plans or projects, are subject to Screening for Appropriate Assessment to ensure there are no likely significant effects on any Natura 2000 site(s) and that the requirements of Article 6(3) and 6(4) of the EU Habitats Directive are fully satisfied. Where a plan/project is likely to have a significant effect on a Natura 2000 site or there is uncertainty with regard to effects, it shall be subject to Appropriate Assessment. The plan/project will proceed only after it has been ascertained that it will not adversely affect the integrity of the site or where, in the absence of alternative solutions, the plan/project is deemed by the competent authority imperative for reasons of overriding public interest.

Objective NH19

To implement the requirements of EU Regulations 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species and Regulation 49 and 50 of the EU (Birds and Natural Habitats) Regulations 2011(S.I. No. 477/2011), as amended.

Objective NH22

To promote best practice in the control of invasive species and support measures for the prevention and/or eradication of invasive species as appropriate and as opportunities and resources allow.

Objective NH27

To carefully consider and implement the management of invasive species where there is a corridor, such as hydrological connections to European Sites in order to prevent the spread of invasive species to sensitive sites.

Objective SWM01

To require the application of SuDS in accordance with the CIRIA SuDS Manual 2015 and any future update of this guidance, or other best practice guidance as may be specified or required by the Council. The application of SuDS should prioritise the use of appropriate nature-based solutions where possible. All proposals should include a commensurate drainage assessment used to design the surface water management system for the site, and this assessment should outline the drainage design considerations/strategy in line with the flood risk, surface water management and climate change requirements and objectives of the County Development Plan and the County Strategic Flood Risk Assessment in Volume 11.

Objective WQ01

To protect existing and potential water resources for the county, in accordance with the EU Water Framework Directive (2000/60/EC), Bathing Water Directive (2006/7/ EC), the National River Basin Management Plan 2018-2021 and any updated version, the Pollution Reduction Programmes for designated shellfish waters, the provisions of a Groundwater Protection Scheme for the county and any other protection plans for water supply sources, with an aim to improving all water quality.

Objective WQ02

To promote compliance with the European Communities (Surface Waters) Regulations 2009 and the European Communities (Groundwater) Regulations 2010 and any other relevant legislations.

Objective WQ04

To work with the Local Authority Waters Programme and other relevant State agencies to develop and implement the River Basin Management Plan 2018-2021 and any future river basin management plan subject to compliance with the Habitats Directive.

Objective WQ05

To strive to achieve and maintain at least ‘Good’ status except where more stringent obligations are required, and no deterioration of status for all water bodies including protected areas, under the Marine Strategy Framework and its programme of measures, the Water Framework Directive and the River Basin Management Plan.

Objective WQ07

To screen planning applications according to their Water Framework Directive status and have regard to their status and objectives to achieve ‘good’ status or protect and improve ‘high or good status’.

Objective WQ17

To promote and support locally led community initiatives aimed at driving local water-quality improvements subject to compliance with the Habitats Directive.

Objective SWM02

To require new developments to provide for the separation of foul and surface water drainage networks within the application site boundaries.

Objective SWM04

To promote and support the retrofitting of Sustainable Urban Drainage Systems (SuDS) in established urban areas.

Kilkenny City and County Development Plan 2021-2027

Objective 1A

To implement the provisions of Articles 6(3) and 6(4) of the EU Habitats Directive and ensure that any plan or project within the functional area of the Planning Authority is subject to appropriate assessment in accordance with the Guidance Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 20091 or any subsequent version, and is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site.

Objective 4M

To support the recommendations of the town plans compiled under the Town and Village Renewal Scheme subject to compliance with the provisions of the Habitats and Birds Directive and subject to the availability of funding.

Objective 9A

Continue to identify and map habitats and green infrastructure of county importance, and raise awareness and understanding of the county's natural heritage and biodiversity identifying green corridors and measures to connect them.

Objective 10B

To implement the measures of the River Basin Management Plan, including continuing to work with communities through the Local Authority Waters Programme to restore and improve water quality in the identified areas of action.

Appendix III

IE Consulting (2023). *Technical Note: Proposed Community Enterprise Centre. Presentation House, Bagenalstown, Co. Carlow. Hydrological/Hydrogeological Impact.*

Technical Note:

Project No: IE2539

Prepared: LMc

Checked: PMS

Reviewed: JK

File Location: N:\IE_Projects\IE2739\5289

Date: 14th April 2023

Proposed Community Enterprise Centre

Presentation House, Bagenalstown, Co Carlow

Hydrological / Hydrogeological Impact

1.0 Background

IE Consulting was instructed by Brennan Associates, on behalf of Carlow County, to provide a brief technical note and commentary with respect to a proposed development at Presentation House, Long Range Street, Bagenalstown, Co Carlow.

The development as proposed comprises the repurposing of the existing Presentation House building into a Multi-Use Enterprise Centre.

This technical note has been produced in order to provide commentary in relation to the potential hydrological and hydrogeological impact of the development as proposed and to assist the Appropriate Assessment screening process.

This technical note has primarily utilised the information presented in the 'Civil Engineers Report' produced by Bowe Consulting Engineers and the drawings and details which accompany this report.

Reference to the existing and proposed site layout drawings indicate that the development as proposed does not involve an addition to the footprint area of the existing Presentation House building.

2.0 Site Location & Hydrological Setting

The site of the proposed development is located at Long Range Street, Bagenalstown, Co Carlow.

As illustrated in *Figure 1* below, the site of the proposed development is bounded to the north, south and east by existing residential properties and to the west by Long Range Road.

The closest and most predominant surface hydrological feature to the site of the proposed development is the River Barrow, which is located approximately 120m beyond the northern boundary of the site. The catchment area of the River Barrow to a point downstream of the site is approximately 2432 km². An assessment of the upstream catchment area indicates a predominately rural catchment with the urban fraction accounting for approximately 2% of the upstream catchment.

There are no other hydrological or hydrogeological features mapped within or in the immediate vicinity of the site.

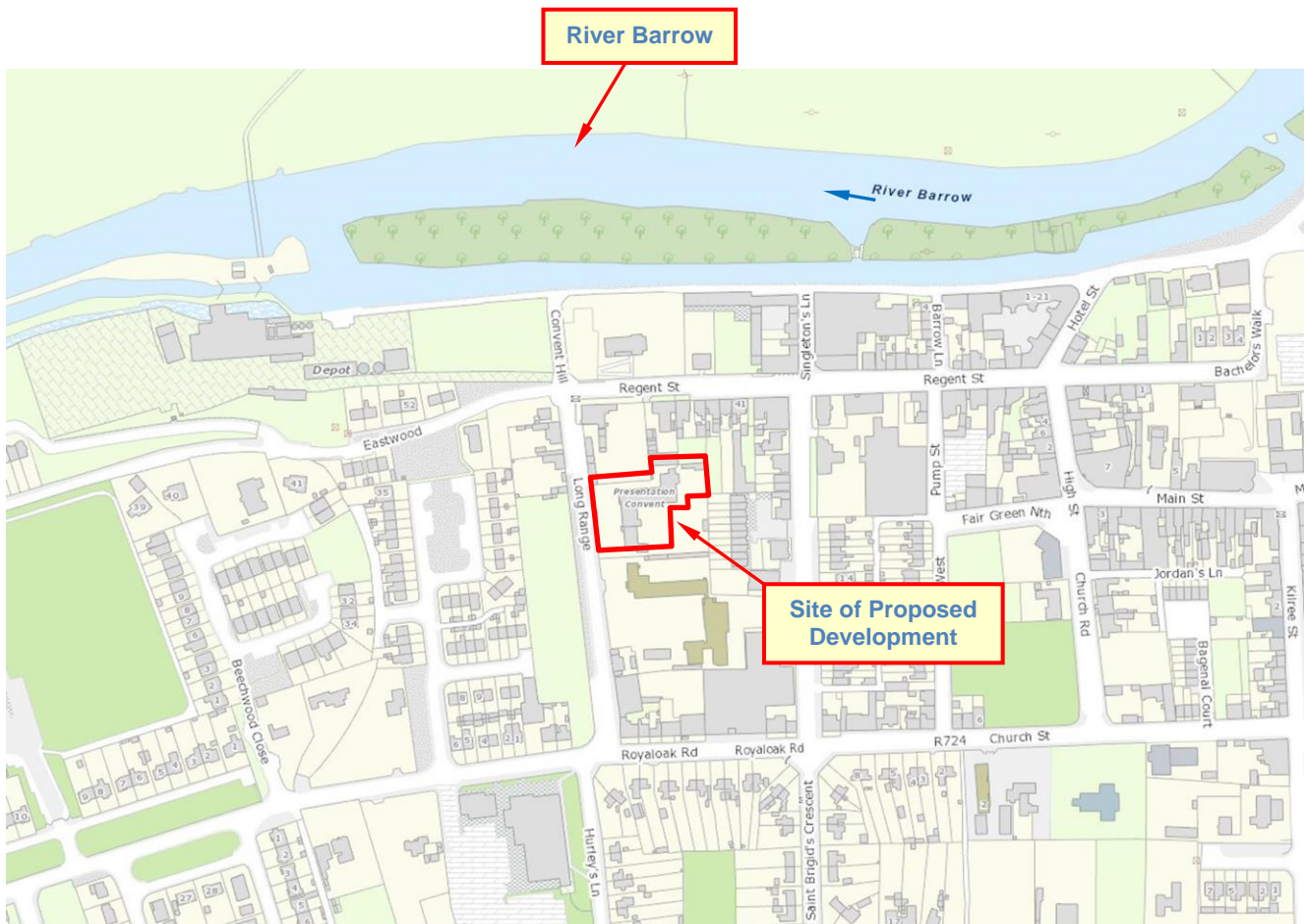


Figure 1

A high level assessment indicates that the site of the proposed development does not fall within or immediately adjacent to a predictive, indicative, strategic, historic or mapped fluvial, pluvial or groundwater flood zone.

3.0 Proposed Development Services

The proposed development services which may potentially impact the existing hydrological and hydrogeological regime of the area relate to surface water management, foul water drainage and potable water supply requirements.

Details of the proposed development surface water management system, foul water drainage and potable water supply are presented in the 'Civil Engineers Report' produced by Bowe Consulting Engineers and the drawings and details which accompany this report.

Surface Water Management

At present, all surface water generated from hardstanding areas (roof areas and external car parking and pedestrian access areas) discharges un-attenuated to the existing public combined sewer located in Long Range Street. It is assumed that this combined sewer conveys wastewaters to the local municipal wastewater treatment plant.

Reference to Clause 3.2 of the Bowe Consulting Engineers 'Civil Engineers Report' and Drawing Number 2291571/P02 indicates that, in consideration of the proposed development scenario, surface water runoff from the existing roof area and an existing 5m wide paved access to the west of the building will continue to discharge to the existing combined sewer, and surface water runoff from all other existing and proposed hardstanding areas will be managed via a sustainable drainage system comprising of permeable paving, with final surface water discharge to ground via infiltration. The suitability of the underlying subsoils to provide a sustainable means of infiltration of surface water runoff has been confirmed by Bowe Consulting Engineers via on-site infiltration testing.

It is the opinion of IE Consulting that the proposed development scenario surface water management system will provide a robust and sustainable means of surface water management for the development as proposed and will be in accordance with recommendations of the Greater Dublin Strategic Drainage Study (GSDSDS), Carlow County Council Drainage Policy and relevant design and operation guidance documents and codes of practice (CIRIA SuDs, BRE365, etc). The surface water management system will provide an adequate means of surface water attenuation and surface water pollution control for the development as proposed.

It is noted that, in comparison to the existing surface water management system, the proposed surface water management system will result in a significantly reduced hydraulic volume discharge to the existing combined sewer network.

Foul Water Drainage

The foul water drainage for the development as proposed shall comprise traditional foul pipe drainage pipes and manholes, with discharge to the existing combined sewer located within Long Range Street.

All foul waters generated from the proposed development will discharge to the local municipal treatment plant via the existing combined sewer. The development as proposed does not involve any form of on-site foul water treatment or effluent discharge to ground.

Water Supply

Reference to Clause 3.3 of the Bowe Consulting Engineers 'Civil Engineers Report' and Drawing Number 2291571/P02 indicates that the development as proposed will be served by the existing potable and metered public watermain. The development as proposed does not involve the development or provision of any new on-site groundwater boreholes or wells.

4.0 Summary

In summary, it is the opinion of IE Consulting that, with respect to the proposed development surface water management system, foul water drainage and water supply, the development as proposed is not expected to result in an adverse impact to the existing hydrological or hydrogeological regime of the area or to result in an harmful impact to any European or other protected site.

The proposed surface water management system has been designed in accordance with the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS), Carlow County Council Drainage Policy and relevant design and operation guidance documents and codes of practice (CIRIA SuDs, BRE365, etc) and therefore provides a robust and sustainable means of surface water attenuation and surface water pollution control for the proposed development.

It is also noted that the proposed surface water management system will result in a significantly reduced hydraulic volume discharge to the existing combined sewer network.

Paul McShane



Senior Hydrological Engineer
IE Consulting