

Turley

# Ballyragget Masterplan

Screening for Appropriate Assessment

604322

MARCH 2024

**RSK**

# RSK GENERAL NOTES

**Project No.:** 604322

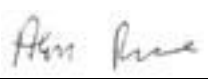

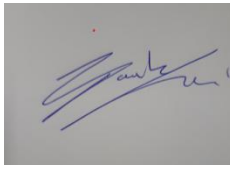
**Title:** Ballyragget Town Renewal – Screening for Appropriate Assessment

**Client:** Turley

**Date:** 20<sup>th</sup> November 2024

**Office:** Dublin

**Status:** Rev.07

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Ireland.

## EXECUTIVE SUMMARY

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This report presents information necessary to allow the competent authority to conduct a Screening for Appropriate Assessment for a town rejuvenation project in Ballyragget, Co. Kilkenny. The report has been prepared by RSK Ireland on behalf of Turley (the applicant), aim of this report is to identify potential ecological constraints and enhancement opportunities within the Site.

In accordance with their obligations under the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011), the planning authority must assess whether the proposed masterplan could have 'likely significant effects' on any European sites. This document provides supporting information to assist the authority with an Appropriate Assessment screening exercise, including: a description of the plan, a review of the site's environmental setting, details of European sites within the potential zone of effect based on an appraisal of source-pathway-receptor relationships, and an assessment of potential impacts.

It is concluded that the plan would not lead to direct or indirect impacts on European sites, both alone and in-combination, so progression to a stage 2 Appropriate Assessment is not required. However all future elements of the plan will need an appropriate assessment screening.

# CONTENTS

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<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 Background to Appropriate Assessment.....	1
1.2 Statement of authority .....	3
1.3 Methods.....	3
1.4 Limitations .....	4
<b>2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT AND SITE CHARACTERISITICS .....</b>	<b>5</b>
2.1 Description of the Plan .....	5
2.2 Environmental setting .....	5
2.3 Other nearby developments (potential in-combination effects).....	6
2.4 Policy Context.....	7
<b>3.0 IDENTIFICATION OF RELEVANT EUROPEAN SITES.....</b>	<b>10</b>
3.1 Source-Pathway-Receptor .....	10
3.2 Potential zone of Influence .....	10
3.3 Identification of European sites within the zone of influence .....	11
3.4 Conservation Objectives .....	12
<b>4.0 ASSESSMENT OF POTENTIAL IMPACTS .....</b>	<b>20</b>
4.1 Overview.....	20
4.2 Direct impacts.....	20
4.3 Indirect impacts .....	20
Potential changes in water quality (construction phase) .....	21
Potential changes in air quality (construction and operational phase) .....	22
Conservation Objectives.....	22
4.4 QI Species Potentially Impacted .....	22
4.5 Potential in-combination effects .....	24
4.6 Significant Effects .....	24
<b>5.0 SCREENING STATEMENT .....</b>	<b>27</b>
Conclusion .....	27
<b>REFERENCES.....</b>	<b>28</b>
<b>FIGURES .....</b>	<b>29</b>
<b>FIGURES</b>	
<b>Figure 1 European sites and hydrological connectivity within Zol .....</b>	<b>14</b>
Figure 2 Groundwater connectivity to SACs .....	15
Figure 3 fresh water pearl mussel sensitivity area.....	30
Figure 4 map of EPA named watercourse .....	31
<b>TABLES</b>	
Table 1 Planning permission of surrounding area .....	7
Table 2 European sites within potential zone of influence.....	13
Table 3 Table of potential effects.....	19
Table 4 in-combination effects .....	25



# 1.0 INTRODUCTION

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## 1.1 Background to Appropriate Assessment

- 1.1.1 Approximately 10% of the land area of Ireland is included in the European Network of European sites, which includes Special Protection Areas (SPAs) to protect important areas for birds, and Special Areas of Conservation (SACs) to protect a range of habitats and species. Legal protection for these sites is provided by the European Council *Birds Directive* (79/409/EEC) and E.C. *Habitats Directive* (92/43/EEC, as amended), which are jointly transposed into Irish law by the *European Communities (Birds and Natural Habitats) Regulations* 2011 (SI 477/2011, as amended).

### 1.1.2 Legislation

In compliance with Article 6(3) of the EU Habitats Directive (92/43/EEC) and EU Birds Directive (2009/147/EC), as transposed into Irish legislation by the Natura 2000 Communities (Birds and Natural Habitats) Regulations 2011 and Section 177U of the Planning and Development Act 2000 (as amended), a screening for Appropriate Assessment (AA) of a draft land use plan or application for consent for proposed development 'shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European Site' (Section 177 U (1)).

- 1.1.3 Regulation 42 (1) states that: "*Screening for Appropriate Assessment of a plan or project for which an application for consent is received [...] shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on [any Natura 2000 sites].*" To ensure compliance with this regulation, public authorities must screen all land-use plans for potential impacts on European sites.

- 1.1.4 Natura 2000 network sites or European Sites are those identified as Sites of Community Importance under the Habitats Directive (SAC) or classified as SPAs under the EU Birds Directive (2009/147/EC). The principal trigger for undertaking an 'Appropriate Assessment' would be if the Draft Masterplan was likely, either directly or indirectly, to have significant effects on a European Network site.

### 1.1.5 Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DoEHLG) (2010). These guidance documents identify a staged approach to conducting an AA.

### 1.1.6 Stage 1 – Screening for AA

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

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

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

### 1.1.7 Stage 2 – AA

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

### 1.1.8 Stages 3 & 4 – Alternative Solutions & IROPI

Where adverse impacts on the integrity of European sites are identified, after mitigation measures have been applied, or the mitigation measures are not certain / capable of being successfully implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the assessment must demonstrate Imperative Reasons of Overriding Public Interest (IROPI) and provide suitable compensation.

1.1.9 This document provides background information to support a 'Screening for Appropriate Assessment' for a masterplan outlining a development involving the construction and development of an urban regeneration scheme in Ballyragget, Co. Kilkenny. It includes a description of the plan, a review of the site's environmental setting, details of European sites within the zone of influence of the project (i.e. the potential zone of impact), an appraisal of source-pathway-receptor relationships, and an assessment of potential impacts.

1.1.10 This AA Screening assesses, 1) whether the making of the Draft masterplan, is directly connected to or necessary for the conservation management of any European site, and 2) whether the Draft Masterplan, alone or in combination with other plans and projects, is likely<sup>1</sup> to result in significant<sup>2</sup> effects on any European site within the European network in view of its conservation objectives. The purpose of this Screening is to identify whether land use measures facilitated by the Draft Masterplan will have the potential to adversely affect the conservation objectives of European sites. Such a conclusion will be arrived at

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<sup>1</sup> "likely" meaning any effect that may be reasonably predicted

<sup>2</sup> "significant" meaning not trivial or inconsequential but an effect that is potentially relevant to the Site's conservation objectives (i.e. any effect, which would compromise the functioning and viability of a Site and interfere with achieving the conservation objectives of the Site would constitute a significant effect)

by assessing the nature of current and future land use activities that will be supported by the masterplan, the potential for these activities to interact with European Sites occurring within the masterplan's Zone of Influence, and the likely changes that will result from the making of the masterplan, in combination with other plans and projects.

- 1.1.11 The Draft Masterplan has been screened to ascertain if it is required to be subject to an 'Appropriate Assessment' under the EU Habitats Directive. Based on the 'Methodological guidance on the provision of Article 6(3) and (4) of the EU Habitats Directive 92/43/EEC', a 'Screening Matrix' and a 'Finding of No Significant Effects Matrix' have been completed and are appended to this report.

## 1.2 Statement of authority

- 1.2.1 This screening report was written by Alan Dunne. Alan is a Senior Ecologist at RSK Ireland and has an MSc in Environmental Resource Management from University College Dublin. He has 12 years ecology experience and is an Associate Member of CIEEM. He has written a number of Appropriate Assessments.
- 1.2.2 Technical review has been undertaken by Technical Director Mark lang a Fellow of CIEEM and a Chartered Ecologist (CEcol).

## 1.3 Methods

- 1.3.1 This report has been prepared with reference to the following guidelines:
- *Appropriate Assessment of Plans and Projects in Ireland.* (Department of the Environment, Heritage and Local Government, 2009).
  - *Appropriate Assessment Screening for Development Management.* (Office of Planning Regulator Practice Note 01, March 2021).
  - *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4), E.C., 2002.*
  - *Assessment of plans and projects significantly affecting European sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC.* Office for Official Publications of the European Communities, Brussels (EC, 2021).
  - *Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission.* Office for Official Publications of the European Communities, Luxembourg, (EC, 2007).
  - *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal* (Chartered Institute of Ecology and Environmental Management, 2019).
  - *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019).

1.3.2 In accordance with Section 3.2 of *Appropriate Assessment of Plans and Projects in Ireland*, the screening exercise was conducted using the following steps:

1. Description of the plan and the receiving environment, and determination as to whether the plan is directly connected or necessary for the conservation management of a European site(s);
2. Identification of relevant European sites occurring within the Zone of Influence of the masterplan, and compilation of information on their qualifying interests and conservation objectives.
3. Identification of whether or not there are elements of the masterplan with the potential to give rise to likely significant effects – i.e. direct, indirect etc – on the conservation objectives of European sites; and;
4. Identification of other plans or projects that, in combination with the masterplan, have the potential to affect European sites.
5. Conclusions of the screening assessment process.

1.3.3 A desk-based study was carried out using data from the following sources:

- The building and landscape plans for the proposed scheme, and specialist reports prepared in support of any planning application for it.
- Qualifying interests / conservation objectives of European sites from [www.npws.ie](http://www.npws.ie).
- Bedrock, soil, subsoil, surface water and ground water maps from the Geological Survey of Ireland webmapping service ([www.gsi.ie/mapping.htm](http://www.gsi.ie/mapping.htm)), the National Biodiversity Data Centre (<http://maps.biodiversityireland.ie/>), and the Environmental Protection Agency web viewer (<http://gis.epa.ie/Envision/>).
- The *Kilkenny City and County Development Plan 2021-2027*; and details of proposed developments from same planning authority's online register.

1.3.4 All web-based resources were accessed in June & December 2023.

## 1.4 Limitations

1.4.1 It is important to note that this screening exercise was predominantly carried out using desktop resources, including information from public sources (e.g., online mapping systems). This is standard practice for Stage 1 of the Appropriate Assessment process, for which the purpose is to identify any risk of significant impacts. If such a risk is identified as part of this assessment, it would proceed to Stage 2 of the process, and any required site inspection would then be carried out if necessary.



## 2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT AND SITE CHARACTERISTICS

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### 2.1 Description of the Plan

- 2.1.1 The project is currently in the feasibility stage, so detailed plans are not yet available. However, upon consultation of the draft plan and with the local authority it is understood that it will involve a range of small-scale works to improve access and amenity in the area and to address dereliction in the town by refurbishing/repurposing vacant and/or derelict buildings and the development of the underutilised infill/backland areas. No works in or near the River Nore SAC have been identified.
- 2.1.2 The Site covers a number of locations in Ballyragget. As part of *Kilkenny City and County Development Plan 2021-2027*, these areas are scheduled to be zoned for a range of uses, including open space, residential, town centre and general employment. The masterplan will identify interventions which align with the six placemaking goals.
- 2.1.3 At the time of writing, there has been no confirmation of surface water discharge proposals. However, considering there is existing water sewer infrastructure for the town with room for capacity, it will be possible for new built infrastructures to be connected to these if required.

### 2.2 Environmental setting

#### ***Site location and surroundings***

- 2.2.1 The area of proposed development encompasses the whole town of Ballyragget, Co. Kilkenny (Figure 2). Ballyragget, Co. Kilkenny (hereafter referred to as “the site”) is located in the north of County Kilkenny, in the valley of the River Nore, with the Castlecomer Plateau to the east and the Slieveardagh Hills to the west. The River Nore runs adjacent to the west of the town. It lies approximately 18km north of Kilkenny city, situated on the N77 which is a national secondary road linking Kilkenny to Durrow. A regional road, R694, linking Freshford to Castlecomer, also passes through the town.
- 2.2.2 The site is a rural town, consisting of residential and commercial built areas with the surrounding area being mostly of an agricultural landscape including hedgerow boundaries, tilled ground, arable crops and improved grassland.
- 2.2.3 The entirety of the approximately 80 km stretch of the River Nore from sea to the site is classified as an SAC (River Barrow and River Nore SAC), and the section of the River Nore flowing adjacent to the site is also classified as an SPA for the entirety of the 15 km buffer area around the site.
- 2.2.4 In the *Kilkenny City and County Development Plan 2021-2027* the site is zoned as ‘Rural Towns and Villages’.

### ***Geology, soils and hydrology***

- 2.2.5 Mapping at 1:100,000 suggests that the bedrock of the majority of the town is Crinoidal wackestone/packstone limestone, with a small area in the northwest being of shaly fossiliferous and oolitic limestone (online information from the Geological Survey of Ireland websites <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx> ).
- 2.2.6 Limestone is considered to have good porosity and permeability, meaning that it is relatively easy for water from the site to enter deep aquifers.
- 2.2.7 Topographically, the site lies within the valley of the River Nore, at an elevation of approximately 72m above sea level.
- 2.2.8 As mentioned above, the River Nore runs parallel to the west of the site, flowing north to south. It is approximately 50m from the site boundary at its closest point, with two tributaries flowing east to west, one through the middle of the town and one along the southern boundary.
- 2.2.9 Using the Water Framework Directive (WFD) maps (<https://gis.epa.ie/EPAMaps/Water/>, accessed June 2023), the status assessments for 2016 – 2021 classify water quality in the River Nore and these tributaries as “good”.
- 2.2.10 The site sits within the Durrow groundwaterbody GWB (code IE SE G 156) and the Kilkenny-Ballynakill Gravels GWB (code IE SE G 163).  
  
The Durrow GWB is a regionally important karstified aquifer. A large area of the aquifer is near the surface and the vulnerability is mostly ‘extreme’ reducing to ‘high’ away from the centre of the GWB. Increased nitrate concentrations have resulted in it being assigned ‘poor’ chemical status (EPA, 2020).  
  
The Kilkenny-Ballynakill Gravels status of which is ‘Good’ for the 2013-2018 monitoring period (EPA, 2020). The Kilkenny-Ballynakill Gravels GWB body is ‘Not at Risk’ of not achieving Good status in accordance with the WFD.
- 2.2.11 In the annual report for the Ballyragget Waste Water Treatment Plant (WWTP) D0337-01 it is classed as ‘non-compliant’ by the EPA. Its failing parameters are ammonia and suspended solids.
- 2.2.12 In the Kilkenny wastewater treatment capacity register the WWTP is listed as ‘green’ - having available capacity. Population is recorded as 1,082 as per the 2016 census <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/kilkenny/> .

## **2.3 Other nearby developments (potential in-combination effects)**

- 2.3.1 In addition to the proposed Project, other relevant plans and projects in the area must also be considered. This step aims to identify at this early stage any possible significant in-combination or cumulative effects of the proposed development with other such plans and projects on biodiversity.
- 2.3.2 A review of the National Planning Application Database was undertaken for developments granted planning permission within 2km of the Project site within the last three years.

2.3.3 This search was carried out using the Kilkenny County Council and the myplan.ie online planning portals in June 2023. Any active planning applications for relevant development proposals are listed in Table 1 and discussed in section 4.3.

2.3.4 This data search retrieved various successful applications including, development of residential dwellings, agricultural infrastructure, solar farm and wastewater treatment works upgrade.

Planning name/applicant	Planning Reference	Date of Decision	Permission requested
Gromane Limited	21627	24/08/22	The installation of 31.49km of a 38kV underground electrical cabling.
John Staunton	20395	07/07/21	Construction of 48 No. residential units.
Colvill House Water	2073	31/03/20	The upgrade of the Ballyragget Wastewater Treatment Plant, including construction of a new Inlet Works, construction of a storm water holding tank; and construction of a forward feed storm pumping station.
Tim, Gemma and TJ Sherman	21604	04/11/21	Construction of a milking parlour, dairy, plant room, office, store, collecting yard with drafting and handling facilities, and construction of a slatted cubicle shed.
Pascal Drennan and Niall Drennan	22126	12/07/22	A 10-year planning permission for a 17.346 Hectare Solar Farm.
Glanbia Ireland DAC	21882	10/03/22	The installation of 2 new cooling tower units and associated concrete bases at the existing Waste Water Treatment Plant and associated ancillary site works.
Brian and Kathleen Phelan	20418	11/08/20	Construction of a one and a half storey dwelling house, detached garage, entrance, connection to public piped sewerage and mains water supply, and all associated site works.
N77 Ballyragget Village to Ballynaslee	JP10.308824	26/08/21	Road Improvement Scheme. Permission granted.

**Table 1 Planning permission of surrounding area**

## 2.4 Policy Context

### 2.4.1 Project Ireland 2040 – National Planning Framework

The Project Ireland 2040 National Planning Framework (NPF) is a strategic framework to guide public and private investment, and to protect and enhance the environment. It sets out a spatial hierarchy of urban centres that are in line for significant population and economic growth over the period of the plan. It also sets out the key principles that will guide future development across the country, addressing issues such as compact growth, making stronger urban places, creating strong and vibrant communities, and ensuring a healthy, liveable environment. This will be achieved through 10 no. National Strategic Outcomes (NSOs) and priorities for every community in the country.

### 2.4.2 National Development Plan 2021-2030

Aligned with the NPF, the National Development Plan 2021–2030 sets out the government’s overarching investment strategy and budget for that period, enabling delivery of the NSOs and priorities set out in the NPF. This significant funding source will support both urban regeneration and rural rejuvenation through a €3 billion Regeneration and Development Fund.

#### 2.4.3 **Our Rural Future – Rural Development Policy 2021-2025**

Our Rural Future - Rural Development Policy 2021-2025 represents a blueprint for the post-COVID recovery and development of rural Ireland. It contains key commitments that deliver on the government’s aim to support the regeneration, re-population and development of rural towns and villages to contribute to local and national economic recovery, and to enable people to live and work in a high-quality environment.

#### 2.4.4 **Town Centre First – A Policy Approach for Irish Towns**

The Town Centre First policy (2022) approach seeks to support and complement a wide range of government policies impacting on towns and is central to the vision of Our Rural Future. It is a core policy objective of Town Centre First to *“create town centres that function as viable, vibrant and attractive locations for people to live, work and visit, while also functioning as the service, social, cultural and recreational hub for the local community”*. The policy lays the foundation for towns to develop their own planned path forward through a tailored Plan. The policy is closely aligned with many National Strategic Outcomes such as Compact Growth, Strengthened Rural Economies and Communities, Sustainable Mobility, Enhanced Amenities, and the Transition to a Low Carbon Society.

#### 2.4.5 **Climate Action Plan 2023**

The Climate Action Plan 2023 sets out a roadmap for taking decisive action to halve Ireland’s emissions by 2030 and to reach net zero by 2050. It further sets out how Ireland can accelerate the actions that are required to respond to the climate crisis. The compact growth agenda outlined in the National Planning Framework is reinforced which promotes extensive retrofitting of existing premises and housing stock and the prioritisation of brownfield and compact development. Actions in CAP23 strongly align and support the regeneration and revitalisation of Ireland’s towns, including through reducing demand for travel by car, sustaining economic and social activity at street level and increasing access to shops, employment, and amenities by sustainable transport modes.

#### 2.4.6 **Heritage Ireland 2030**

Heritage Ireland 2030 is built around a vision of our heritage being at very centre of discourse, valued by all and cared for and protected for future generations. At the heart of this framework are three themes: communities, leadership, and partnerships, reflecting the importance of ongoing collaboration between government and communities, heritage organisations, individuals, and local authorities in caring and planning for our shared heritage.

#### 2.4.7 **Regional Spatial and Economic Strategy for the Southern Region**

The Regional Spatial and Economic Strategy for the Southern Region (RSES) provides a long-term, strategic framework for future physical, economic, and social development and seeks to determine at a regional scale how best to achieve National Strategic Outcomes

of the NPF and NDP. To this end, the RSES sets out 11 no. Strategy Statements which are aligned with international, EU and national policy and which in turn set the framework for Development Plans and Local Economic and Community Plans.

#### **2.4.8 Kilkenny City and County Development Plan**

The Development Plan includes Objective 4La, which forms the basis for the preparation of this Masterplan. It states:

“To develop a set of criteria and a programme to carry out an analysis of the Smaller Towns and Villages (Tier 4) to consider:

- a) The provision of zoning maps where appropriate (particularly for Ballyragget, Mooncoin, Paulstown, Piltown, Kilmacow and Urlingford).
- b) Developing specific objectives for core areas, focal spaces, amenities and opportunity sites.,
- c) Identify land with development constraints.

This programme to be commenced within 12 months of the community into effect of the Plan.”



## 3.0 IDENTIFICATION OF RELEVANT EUROPEAN SITES

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### 3.1 Source-Pathway-Receptor

- 3.1.1 Likely significant effects on a European site will only exist where there is a source-pathway-receptor link. Therefore, identifying potential impact pathways to sensitive habitats and species associated with European sites is a vital component of the screening process. If there is no ecological pathway or functional link between the actions likely to result from the masterplan objectives and any European sites, there is no potential for impact and the masterplan objective can be 'screened out'.
- 3.1.2 Given the high-level nature of the masterplan, determining the source-pathway-receptor links, and therefore the potential for likely significant effects, can be difficult. No allocations, nor specific spatial elements, have been included in the draft; the precautionary principle has therefore been applied when identifying potential source-pathway-receptors.
- 3.1.3 Taking into consideration all potential impacts and the aspirations of the masterplan, the following potential impact pathways (to qualifying habitats and/or species associated with the European sites) have been identified:
- Habitat or species loss.
  - Destruction, fragmentation or degradation of habitats.
  - Disturbance/displacement of species.
  - Species mortality.
  - Changes associated water quality and hydrology.
  - Changes associated with air quality.
  - Introduction and/ or transfer of non-native invasive species.

### 3.2 Potential zone of Influence

- 3.2.1 The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. Whilst for projects this can more easily be established on a case-by-case basis, for high-level plans, such as the masterplan, a broader precautionary approach is more appropriate.
- 3.2.2 Based on the themes within the masterplan, and the potential impact pathways outlined above, a zone of influence of 15km from the boundary of the region has been identified. This distance is precautionary, and it is likely that the zone of influence for the majority of the projects which come forward as a result of the actions under the masterplan will be more localised.

### 3.3 Identification of European sites within the zone of influence

- 3.3.1 European Sites and their associated qualifying features are identified as occurring in the Zone of Influence of a plan where a source-pathway receptor linkage is established between the lands subject to that plan and European Sites (such as hydrological pathways), or where the lands subject to the plan are likely to play an important role in supporting populations of mobile species (i.e. migratory birds etc.) that are listed as special conservation interests/qualifying species for surrounding European Sites.
- 3.3.2 The existence of a pathway does not automatically equate to the likelihood of a significant effect occurring (i.e. where a pathway exists but the magnitude of the potential impact generated at the source is sufficiently small, the likelihood of the pathway giving rise to a significant effect can be ruled out).
- 3.3.3 The following methodology was used to establish Source-Pathway-Receptor links between the proposed development and European Sites to determine which Sites are within the Likely Zone of Influence of the proposed development:
- Catchment mapping was used to establish or discount potential hydrological connectivity between the site of the proposed development and any European Sites.
  - In relation to Special Protection Areas, in the absence of any specific European or Irish guidance in relation to such sites, the Scottish Natural Heritage (SNH) Guidance, 'Assessing Connectivity with Special Protection Areas (SPA)' (2016) was consulted. This document provides guidance in relation to the identification of connectivity between proposed development and Special Protection Areas. The guidance takes into consideration the distances species may travel beyond the boundary of their SPAs and provides information on dispersal and foraging ranges of bird species which are frequently encountered when considering plans and projects.
  - Table 1 provides details of all relevant European Sites as identified in the preceding steps and assesses which are within the likely Zone of Impact. The assessment considers any likely direct or indirect impacts of the proposed development, both alone and in combination with other plans and projects.
  - The site synopses and conservation objectives of these sites, as per the NPWS website ([www.npws.ie](http://www.npws.ie)), were consulted and reviewed at the time of preparing this report.
  - Where potential pathways for Significant Effect are identified, the site is included within the Likely Zone of Impact and further assessment is required.
- 3.3.4 There are no European sites within the site boundary, though the River Nore SPA and the River Barrow and River Nore SAC run directly adjacent to the site.
- 3.3.5 A zone of influence (Zol) of 15 km was considered for AA purposes. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the implementation of the development on European sites. This distance was applied on a precautionary principle as a result of:

- The proximity of the Application Site to the River Nore SAC and the River Barrow and River Nore SPA, which are protected watercourses. Hydrological pathways extend over greater distances than air/noise pollution pathways and therefore, 15 km was deemed to be a more suitable Zol.

3.3.6 The information in Table 2 used for the assessment has been based on the site information sheets available online from the National Parks and Wildlife Service and the European Standard Data Form.

## 3.4 Conservation Objectives

3.4.1 Site-specific conservation objectives are prepared for all European sites. They aim to define the favourable conservation condition for a particular habitat or species at that site. The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

3.4.2 Site-specific conservation objectives specify whether the objective is to maintain or to restore favourable conservation condition of the habitat or species, and they set out attributes and targets that define the objectives. For example, favourable conservation status of a habitat is achieved when:

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

3.4.3 The favourable conservation status of a species is achieved when:

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

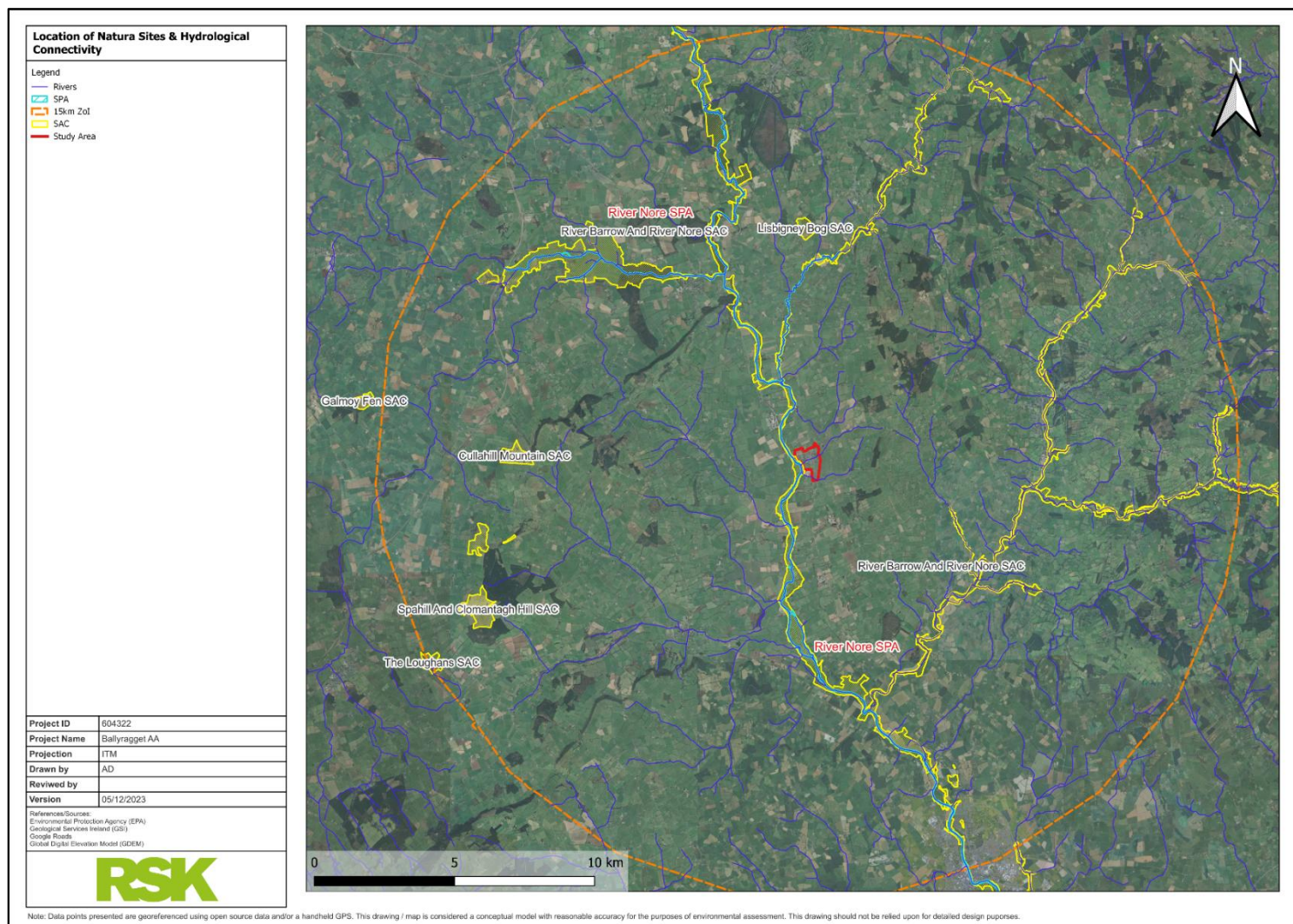
3.4.4 Qualifying interests (QI) and Special Conservation Interests (SCIs) are annexed habitats and species of community interest for which an SAC or SPA has been designated. The site-specific conservation objectives are set out to ensure that the QIs/SCIs of that site are maintained or restored to a favourable conservation condition/conservation status

3.4.5 The standard conservation objective for all SACs and SPAs in Ireland is “*to maintain or restore the favourable conservation condition of the qualifying interests for which the SAC / SPA has been selected*”. A full listing of the conservation objectives and QIs/SCIs that each European site is designated for, as well as the attributes and targets to maintain or restore the QIs/SCIs to a favourable conservation condition, are available from the NPWS website (<http://www.npws.ie/protected-sites>), but are not reproduced here in the interests of brevity.

European Site	Distance	Area (Ha)	Site No.	Qualifying Feature(s)
River Barrow and River Nore SAC	Directly adjacent	12367.76	002162	<b>Qualifying interests:</b> Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Reefs [1170] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330] Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410] Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] European dry heaths [4030] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355] <i>Trichomanes speciosum</i> (Killarney Fern) [1421] <i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]
River Nore SPA	40 m west	146	000849	<b>Qualifying interests:</b> Kingfisher ( <i>Alcedo atthis</i> ) [A229]
Lisbigney Bog SAC	7.5 km north	38	000869	<b>Qualifying interests:</b> Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]
Cullahill Mountain SAC	9.5 km west	55	000831	<b>Qualifying interests:</b> Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) [6210]
Spahill & Clomantagh Hill SAC	10.5 km west	146	000831	<b>Qualifying interests:</b> Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) [6210]
The Loughans SAC	14.6 km south-west	40	000407	<b>Qualifying interests:</b> Turloughs [3180]

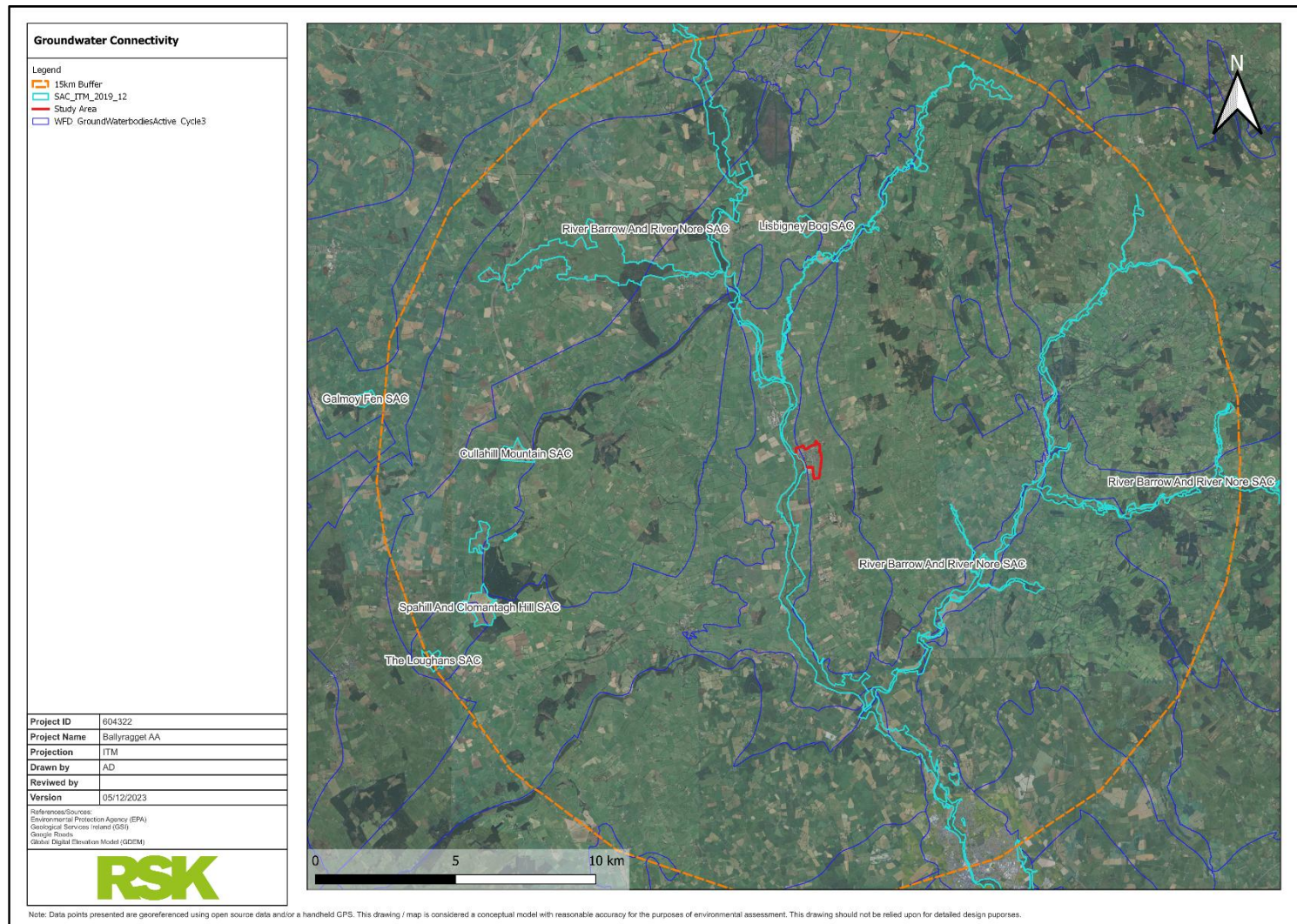
**Table 2 European sites within potential zone of influence.**





**Figure 1 European sites and hydrological connectivity within Zol**





**Figure 2 Groundwater connectivity to SACs**

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
River Barrow and River Nore SAC	<p>Estuaries [1130]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Reefs [1170]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]</p> <p>European dry heaths [4030]</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]</p> <p>Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p>	<p>To maintain or restore the favourable conservation status of habitats and species of community interest.</p> <p>Species specific conservation objectives found here: <a href="https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf">https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf</a></p>	<p>Pathways exist for the release of pollutants including surface water and diffuse pollution into the SAC. The plan area runs immediately adjacent to the SAC and there are two connecting streams which run through the town. Water quality impacts on QI species, including Otter and Nore &amp; Freshwater Pearl Mussel. However as the interventions in this plan are all being undertaken within the town redline boundary (Figure 2) which is 100m from the SAC at its closest point. It is also understood that no plan interventions will be undertaken in close proximity to the Ballyragget Stream.</p> <p>The site is not within any European sites; though it is adjacent to the River Nore SPA and River Barrow and River Nore SAC. However as the interventions in this plan are all being undertaken within the town redline boundary (Figure 2) which is 100m from the SAC at its closest point, LSE can likely be ruled out.</p> <p>As the works are being undertaken within the town redline boundary LSE on water quality and pearl mussel can likely be ruled out at this stage due to the separation distance and the vegetated area between the redline boundary and the waters of the SAC.</p> <p>It is considered that there is no potential for significant airborne transfer of pollution to the River Barrow and River Nore SAC and the River Nore SPA European sites due to the immediate proximity.</p>

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
	<p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p><i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</p> <p><i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</p> <p><i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]</p> <p><i>Petromyzon marinus</i> (Sea Lamprey) [1095]</p> <p><i>Lampetra planeri</i> (Brook Lamprey) [1096]</p> <p><i>Lampetra fluviatilis</i> (River Lamprey) [1099]</p> <p><i>Alosa fallax fallax</i> (Twaite Shad) [1103]</p> <p><i>Salmo salar</i> (Salmon) [1106]</p> <p><i>Lutra lutra</i> (Otter) [1355]</p> <p><i>Trichomanes speciosum</i> (Killarney Fern) [1421]</p> <p><i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]</p>		<p><b>LSE on this site are screened out. No further assessment required.</b></p>

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
River Nore SPA	Kingfisher ( <i>Alcedo atthis</i> ) [A229]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	Pathways exist for the release of pollutants into the SPA which could affect the foraging resource and prey species (fish). However as the interventions in this plan are all being undertaken within the town redline boundary (Figure 2) which is 100m from the SPA at its closest point and it is also understood that no plan interventions will be undertaken in close proximity to the Ballyragget Stream. LSE can likely be ruled out.  <b>No further assessment is required.</b>
Lisbigney Bog SAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]	To restore the favourable conservation condition of Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> in Lisbigney Bog SAC	There are no pathways by which the SAC would be affected. <b>No further assessment is required.</b>
Cullahill Mountain SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) [6210]	To restore the favourable conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites) in Cullahill Mountain SAC.	There are no pathways by which the SAC would be affected. <b>No further assessment is required.</b>
Spahill & Clomantagh Hill SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) [6210]	To restore the favourable conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites) in Spahill and Clomantagh Hill SAC	There are no pathways by which the SAC would be affected. <b>No further assessment is required.</b>

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
The Loughans SAC	Turloughs [3180]	To restore the favourable conservation condition of Turloughs in The Loughans SAC.	There are no pathways by which the SAC would be affected (see Figures 1 & 2 ). <b>No further assessment is required.</b>

**Table 3 Table of potential effects**



## 4.0 ASSESSMENT OF POTENTIAL IMPACTS

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### 4.1 Overview

- 4.1.1 There are six European sites within the potential zone of influence, these are listed in Table 1 along with their qualifying features. The closest is the River Barrow and River Nore SAC which is directly adjacent to the west of the site, and the River Nore SPA which is approximately 40 metres at the closest point to the west, Lisbigney Bog SAC is 7.5 km to the north, Cullahill Mountain SAC is 9.5 km west, Spahill & Clomantagh Hill SAC which is 10.5 km west and The Loughans SAC which is 14.6 km to the south-west.

### 4.2 Direct impacts

- 4.2.1 The site is not within any European sites; however it is hydrologically linked to two European sites, the River Nore SPA and River Barrow and River Nore SAC. While no development plans have yet to be produced, it is understood that all works will be undertaken within the town redline boundary (Figure 2) so loss, fragmentation, direct damage or direct disturbance to the qualifying habitat types within these European sites, and the qualifying species populations while resident there via a hydrological pathway can likely be ruled out.

### 4.3 Indirect impacts

- 4.3.1 Indirect impacts can occur if there is a viable pathway between the source (the site) and the receptor (the habitats and species for which a European site has been designated). The most common pathway for impacts is surface water, e.g. if a pollutant reaches a river and is carried downstream into a European site. Other potential pathways are groundwater, air (e.g. airborne dust or sound waves), or land (e.g. flow of liquids, vibration). The zone of effect for hydrological impacts can be several kilometres, but for air and land it is considered to be rarely more than c.100 m. An appraisal of potential pathways for impacts on European sites is provided below.
- 4.3.2 A hydrological pathway between the site and the River Nore SPA and River Barrow and River Nore SAC exists via the two tributaries of the River Nore which run through the middle and directly south of the town. Additionally, these adjacent Natura 200 sites to the west of the town are approximately 8m lower than the proposed development site, making the surface water flow into the River Nore a possibility.
- 4.3.3 Potential for significant impacts on water quality during construction which would impact on River Barrow and River Nore SAC QI species otter and Nore pearl mussel.
- 4.3.4 It is considered that there is no potential for airborne transfer of pollution to the River Barrow and River Nore SAC and the River Nore SPA European sites due to the minor nature of the interventions.

- 4.3.5 No hydrological pathways exist between the Site and Lisbigney Bog SAC, Spahill & Clomantagh Hill SAC, Cullahill Mountain SAC or The Loughans SAC. As such no potential impacts on these European sites are envisaged.
- 4.3.6 The distance between Lisbigney Bog SAC, Spahill & Clomantagh Hill SAC, Cullahill Mountain SAC or The Loughans SAC and the development Site are too great for airborne transfers (especially considering 4.3.1). It is also deemed that airborne transfers are not a risk *via* deposition into hydrological due to the lack of connectivity and direction of the flow of water. As such no potential impacts on these Natura 200- sites are envisaged.
- 4.3.7 The underlying bedrock of the Site is comprised of limestone, which is considered to have good porosity and permeability to water. Given this bedrock type, it is considered there is also potential for groundwater connectivity from the Site to the immediately adjacent European sites.

The distances between the site and Lisbigney Bog SAC, Spahill & Clomantagh Hill SAC, Cullahill Mountain SAC or The Loughans SAC are considered too great for any contamination via groundwater. As such no potential impacts on these Natura 200- sites are envisaged.

- 4.3.8 In relation to the spread of invasive non-native species, if the plan follows standard embedded mitigation measures there is no evident reason for materials to be moved by personnel or vehicles from the Site to any of the European sites, other than accidentally with extremely remote probability. The site is not known to contain any invasive non-native species. Therefore, it is concluded that transference of such species to any European site is unlikely.
- 4.3.9 These statements encompass all the sites in Table 1. In summary, connectivity of the development and potential pollution pathways exist via hydrological, airborne, and groundwater means to the River Nore SPA and the River Barrow and River Nore SAC and further assessment of the potential impacts on these sites is required.
- 4.3.10 There seems to be no viable hydrological, airborne or groundwater pathway connecting the site to any of the other listed European sites. As such they can be screened out.

#### **Potential changes in water quality (construction phase)**

- 4.3.11 In the absence of non-standard mitigation, construction works may release various substances into surface water flows of diverse types. For example, soil disturbance may generate fine sediments (silts), powdery construction materials such as cement may escape, and there may be accidental spills of oil or other toxic chemicals. Any of this could be harmful to aquatic and marine habitats and species if there is a pathway by which such substances can reach them. Surface water flows are the most likely pathway by which such substances might theoretically reach a European site at a distance.
- 4.3.12 Oil and related substances account for around 25% of all reported pollution events in Britain (NRA, 1994a). Oil and petroleum products are often complex mixtures of alkanes with low water solubility and low densities allowing them to float in rivers. Spills to rivers have been known to result in severe short-term impacts on macroinvertebrate fauna and fish discernible up to 4 km with ecological effects up to 10 km (Smith *et al.* 2010). Crustaceans, amphibians and some birds are highly vulnerable to deterioration in water quality.

- 4.3.13 It is not anticipated that the project is of a kind that would entail the use of exceptionally toxic substances, nor very large amounts of less toxic substances. However, as a complete description of the works has not been provided at the time of writing, this cannot yet be confirmed. From Section 4.2 and 4.3, there is a potential direct and indirect, hydrological pollution pathway from oil spills (or similar spills of ordinary construction materials) to pass from the site to the River Barrow and River Nore SAC and River Nore SPA. Potential changes in water quality (operational phase) are also noted. However as the works are being undertaken within the town redline boundary which has a 100 m grassland buffer between the site and the European sites LSE are not anticipated.
- 4.3.14 Foul water discharge and surface water drainage plans have not been provided at the time of writing. However, considering there is existing water sewer infrastructure for the town with capacity, it will be possible and expected for new built infrastructures to be connected to these.
- 4.3.15 Providing this is the case, foul water drainage and surface water drainage discharges from development would not cause likely significant impacts on the designated features of interest for the European sites.

#### **Potential changes in air quality (construction and operational phase)**

- 4.3.16 If the works generate a release of dust and other airborne pollutants, the site is close enough to European sites to have a potential impact.
- 4.3.17 During operation the development might give rise to extra vehicle movements. Despite the proximity to the European sites, the relatively small scale of the proposed works are not expected to have a likely significant effect on nitrogen deposition rates and therefore on the integrity of the surrounding European sites.

#### **Conservation Objectives**

- 4.3.18 In identifying the potential of likely significant impact to two European sites, the assessment in the preceding paragraphs further implies that the delivery of conservation objectives for the SAC (Section 3.3) would also be affected.

### **4.4 QI Species Potentially Impacted**

#### ***Freshwater Pearl Mussel / Nore Pearl Mussel***

- 4.4.1 The species is critically endangered in Ireland and across Europe, mainly because of habitat deterioration: a combination of hydrological and morphological changes, sedimentation and enrichment. In many rivers, adult mussels have become stressed and are prematurely dying owing to habitat deterioration, while in others, riverbeds have become too clogged with silt, algae and rooted plants for young mussels to survive. The pressures come from a wide variety of sources (e.g. pollution from urban wastewater, development activities, farming and forestry), often quite removed from the species' habitat. Direct impacts also arise from in-stream works such as channelisation, bridge repairs / construction and recreational fishery structures. Flow changes, caused by

activities such as land drainage, have been highlighted as an important contributor to the species' demise.

- 4.4.2 Article 17 reporting from 2017 states that the Overall Status of *M. margaritifera* is 'Bad' and deteriorating, unchanged since the 2013 assessment (NPWS, 2019).

#### **White-Clawed Crayfish**

- 4.4.3 White-clawed crayfish faces an existential threat from twin impacts of non-indigenous crayfish species (NICS) and Crayfish Plague which is a water-borne disease specific to freshwater crayfish caused by the oomycete *Aphanomyces astaci*. NICS impact the White-clawed Crayfish through direct predation and competition but also act as carriers of Crayfish Plague.
- 4.4.4 The Overall Status of the species is 'Bad' with a deteriorating trend. This represents a genuine decline since the last reporting period and is mainly due to bad Future prospects for the species due to the presence of the Crayfish Plague organism across six catchments.

#### **Otter**

- 4.4.5 The main threats to the otter include pollution, particularly organic pollution resulting in fish kills; and accidental deaths (road traffic and fishing gear). Although recent studies on territory overlaps and animal movements suggest that refinements to the population estimation formula are needed, the otter population (estimated at between 7,000 and 10,000 breeding females) is considered to be increasing and none of the threats or pressures identified is considered likely to impact significantly on the species. The Overall Status of otter is therefore considered to be 'Favourable', unchanged since the previous reporting period.

#### **Sea Lamprey**

- 4.4.6 The sea lamprey is listed in the most recent Irish Red Data Book as 'Near Threatened'. Barriers to upstream migration (e.g. weirs) are considered the major impediment to good conservation status for sea lamprey as these limit access to spawning beds and juvenile habitat. The Overall Status of this species is assessed as 'Bad' with a stable trend, unchanged since the last 2013 assessment.

#### **Brook Lamprey**

- 4.4.7 For brook lamprey in Ireland there are extensive areas of suitable habitat and no significant pressures impacting this species. The Overall Status is therefore assessed as 'Favourable'.

#### **River Lamprey**

- 4.4.8 The inability to distinguish between river lamprey and brook lamprey larvae, and the challenges associated with sampling for adult river lamprey, means that an evaluation of their actual range and population size cannot be undertaken. The Overall Status for river lamprey is therefore assessed as Unknown. The previous reporting period used primarily juvenile *Lampetra* sp. distribution data for this species.

### ***Twaite Shad***

- 4.4.9 Habitat extent is considered adequate to carry a larger population than currently recorded. However, there are concerns regarding habitat quality, especially at spawning sites. A number of pressures were identified, mainly relating to pollution, alteration of flow patterns, and habitat disturbance. Introduced species were also recorded, with a large population of the Asian clam (*Corbicula fluminea*) recorded within kilometres of the twaite shad spawning ground on the River Barrow. Furthermore, barriers to migration, such as weirs, can impede or prevent twaite shad accessing spawning habitat, and can also increase the potential for hybridisation between converging populations of twaite and Allis shad simultaneously obstructed below barriers. The Overall Status from 2017 Article 17 reporting of this species is assessed as 'Bad' with a stable trend, unchanged from the previous assessment.

### ***Atlantic Salmon***

- 4.4.10 There is considered to be sufficient habitat in Ireland to support a viable salmon population. Freshwater quality in Ireland continues to remain a concern but ongoing pressures linked with habitat quality are not considered to be compromising the viability of the species. The Overall Status is assessed as Inadequate, the same as the last assessment. Although a short-term negative trend is reported for this species, the trend has reversed in the last 5 years. Therefore an overall stable trend was reported in Article 17 reporting from 2017.

## **4.5 Potential in-combination effects**

- 4.5.1 Screening needs to consider the effects of the proposed development 'in-combination' with other plans or projects. As such, the potential for in-combination effects was assessed by examining the full planning applications for approved uncompleted plans or projects by competent authorities for the past 5 years, along the rivers and tributaries also connected to the identified European sites up to 2 km from the respected work areas.
- 4.5.2 Planning applications identified six developments which do not directly impact the habitats that are likely to be functionally linked to European sites that fall within the zone of influence (Zoi) of the proposed development. Two larger developments have gone through AA Screening with individual mitigation measures required (Table 4).
- 4.5.3 Minor short-term impacts on Otter are expected during construction phase of N77 road improvement scheme, however no impacts on otter predicted as works are contained to within the town redline boundary.

No other quantifiable impacts were found in AAs & EIARs relating to the other identified developments, any addition to the cumulative impact from the other developments listed in Table 4 will be negligible, and there will be no likely significant effect on any European site in consequence of adding the development to the other proposals.

## **4.6 Significant Effects**

- 4.6.1 Potential impacts, direct and indirect, on the conservation objectives of River Barrow and River Nore SAC and River Nore SPA have been screened out. It is therefore considered that progress to Stage 2 Appropriate Assessment is not required



**Table 4 in-combination effects**

Applicant for Development and Brief Description	Potential for In-combination Effect	Conclusion Regarding In-combination effect
Gromane Ltd.  31.49km of 38kV underground electrical cabling.	Potential for water quality impacts during construction.	The planning application is accompanied by an Environmental Impact Assessment Report (EIAR) and Natura Impact Statement. Water quality impacts mitigated if measures are followed.
Colvill House Water – Ballyragget WWTP upgrade	No significant effects predicted if mitigation measures are followed.	No further assessment required. Overall, it is considered that the upgrade to the Ballyragget WWTP may potentially lead to an improvement in water quality within the adjacent European watercourses.
Tim, Gemma and TJ Sherman – farm upgrade.	No significant effects predicted.	Construction of a new milking parlour and the cooling tower and concrete bases may act in combination with the proposed development leading to a deterioration of water quality in receiving watercourses but assumed adequate surface and foul water disposal arrangements.  No further assessment required.
Pascal Drennan and Niall Drennan - 17.346 Hectare Solar Farm.	No significant effects predicted.	No further assessment required.
Glanbia Ireland DAC – cooling towers.	No significant effects predicted.	Construction of the cooling towers and concrete bases may act in combination with the proposed development leading to a deterioration of water quality in receiving watercourses but assumed adequate surface and foul water disposal arrangements.  No further assessment required.
Brian and Kathleen Phelan	No significant effects predicted.	No further assessment required.

Applicant for Development and Brief Description	Potential for In-combination Effect	Conclusion Regarding In-combination effect
N77 Ballyragget Village to Ballynaslee.	<p>Potential for water quality impacts during construction and operation.</p> <p>Direct &amp; indirect impacts on QI species otter during construction and operation.</p>	<p><b>Water quality</b></p> <p>Construction: impacts minimised if N77 works follow project mitigation measures.</p> <p>Operation: the provision of a road drainage bypass petrol interceptor which outfalls to an attenuation pond and adjacent soak away area mitigates the in-combination water quality impact. This is assessed as having a positive effect in the project EIAR.</p> <p><b>Otter</b></p> <p>Construction: minor short-term disturbance are likely.</p> <p>Operation: Potential for positive operational phase impacts on Otters associated with the SAC as improvement on water quality, via the proposed attenuation pond and bypass petrol interceptors that will treat run-off and accidental spillages on the new N77 road.</p> <p><b>Freshwater / Nore pearl mussel</b></p> <p>Construction: potential significant impact on any downstream populations via pollution events during construction. These species are highly sensitive to changes in water quality.</p> <p>Operation: improvements in water quality via the addition of petrol interceptor and attenuation pond from N77 project.</p>

## 5.0 SCREENING STATEMENT

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### Conclusion

- 5.1.1 In Section 3.2.5 of *Appropriate Assessment of Plans and Projects in Ireland* (NPWS 2010), it is stated that the first stage of the AA process can have three possible conclusions:
- ***AA is not required***  
Screening, followed by consultation and agreement with the NPWS, establishes that the plan or project is directly connected with or necessary to the nature conservation management of the site
  - ***No potential for significant effects / AA is not required***  
Screening establishes that there is no potential for significant effects and the project or plan can proceed as proposed.
  - ***Significant effects are certain, likely or uncertain***  
The plan or project must either proceed to Stage 2 (AA), or be rejected.
- 5.1.2 With regard to Article 42 (7) of the *European Communities (Birds and Natural Habitats) Regulations* 2011, it can be concluded on the basis of objective scientific information following screening, that the plan, individually or in combination with other plans or projects, will not have likely significant effect on European protected sites. Consequently, we conclude that Stage 2 Appropriate Assessment is not required.

## REFERENCES

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- Chanin P (2003). Ecology of the European Otter. Conserving Natura 2000 Rivers Ecology Series No. 10. English Nature, Peterborough
- Chartered Institute of Ecology and Environmental Management, 2019. *Guidelines for Ecological Impact Assessment in the U.K and Ireland: Terrestrial, Freshwater and Coastal (2nd Edition)*. C.I.E.E.M., Hampshire, England.
- Department of the Environment, Heritage and Local Government, 2009. *Appropriate Assessment of Plans and Projects in Ireland*. National Parks and Wildlife Service, DAHG, Dublin, Ireland.
- EPA, (2020). *Water Quality In Ireland 2013-2018*. Environmental Protection Agency. Johnstown Castle, Wexford.
- European Commission, 2002. *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Office for Official Publications of the European Communities, Luxembourg.
- Irish Water, (2021). *Annual Environmental Report 2021 – Ballyragget D0337-01*.
- Kilkenny County Council. *The Kilkenny City and County Development Plan volume 1 county 2021-2027*.
- NatureScot (2023). *Habitat Regulations Appraisals (HRA) of Local Development Plans (LDPs) Guidance for Planning Authorities in Scotland*.
- NPWS, (2011). *River Barrow and River Nore SAC 002162 Conservation Objectives*. Department of Arts, Heritage and the Gaeltacht.
- NPWS (2019). *The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview*. Unpublished NPWS report.
- NRA. 1994a. *Water Pollution Incidents in England and Wales 1993*. National Rivers Authority Water Quality Series No. 21. Her Majesty's Stationery Office, London.
- OPR, (2021). *Appropriate Assessment Screening for Development Management*. OPR Practice Note PN01. Office of the Planning Regulator, Dublin 7, Ireland.
- Turley (2024). *Ballyragget Masterplan*. Turley Planning, Dublin.
- VWT. 2021. Species Profile – Otter. Available at: <https://www.vincentwildlife.ie/species/otter>. (Accessed 06/01/23).

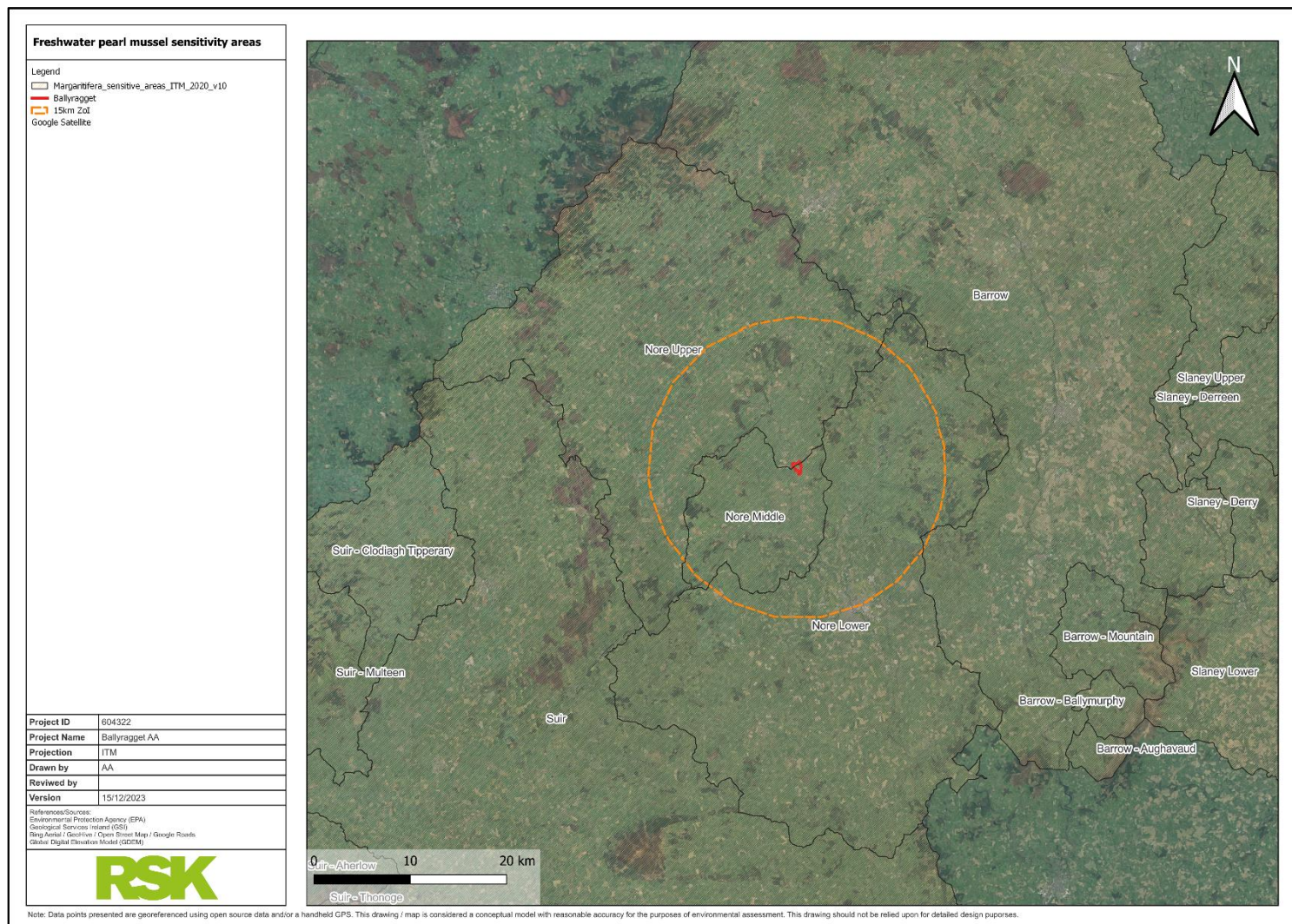
## FIGURES

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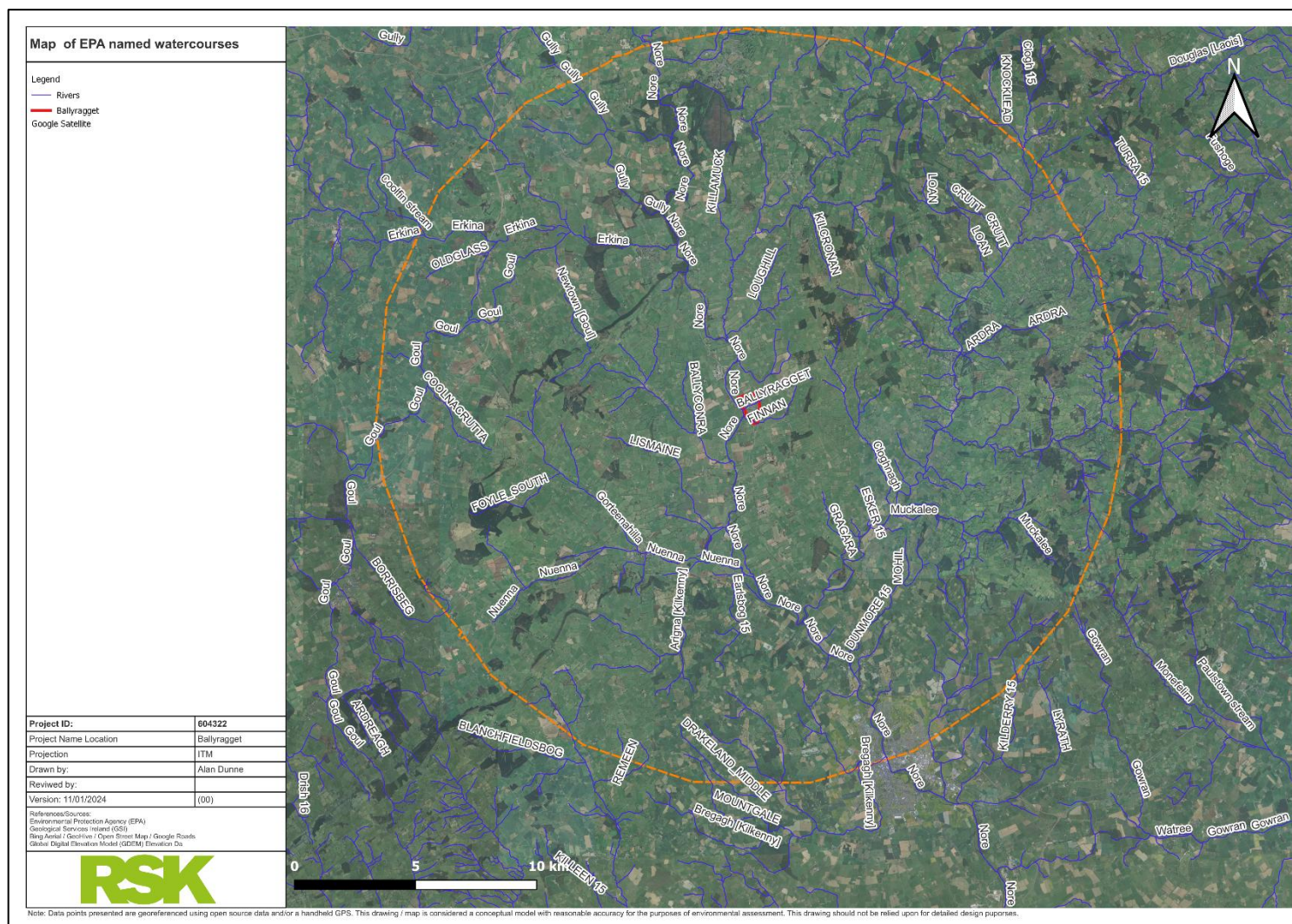
**Figure 2.** Town of Ballyragget, site boundary





**Figure 3 fresh water  
pearl mussel  
sensitivity area**





**Figure 4 map of  
EPA named  
watercourse**



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