

Turley

Paulstown Masterplan

Screening for Appropriate Assessment

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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

This report presents information necessary to allow the competent authority to conduct a Screening for Appropriate Assessment for a town rejuvenation masterplan in Paulstown, Co. Kilkenny. The report has been prepared by RSK Ireland on behalf of Turley, the 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 Natura 2000 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 on the basis of objective scientific information following screening, that the masterplan, individually or in combination with other plans or projects, will not have any significant effect on a European protected site. Consequently, Appropriate Assessment is not required.

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1.0 INTRODUCTION

1.1 Background to Appropriate Assessment

1.1.1 Natura 2000 sites form a network of areas designated to conserve natural habitats and species that are rare, endangered, vulnerable or endemic within the European Community. This includes Special Areas of Conservation (SACs) (designated under the Habitats Directive) and Special Protection Areas (SPAs) (classified under Directive 2009/147/EC on the Conservation of Wild Birds; the 'Birds Directive'), 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 Natura 2000 sites.

1.1.4 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) and by The Office of the Planning Regulator (2021). These guidance documents identify a staged approach to conducting an AA.

1.1.5 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).

1.1.6 **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.

1.1.7 **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.

1.1.8 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 Paulstown, 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.

1.1.9 This AA Screening assesses, 1) whether the making of the Masterplan, is directly connected to or necessary for the conservation management of any European site, and 2) whether the Masterplan, alone or in combination with other plans and projects, is likely¹ to result in significant² effects on any European site within the Natura 2000 network in view of its conservation objectives. The purpose of this Screening is to identify whether land use measures facilitated by the Masterplan will have the potential to adversely affect the conservation objectives of European sites. Such a conclusion will be arrived at 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.

1.1.10 The 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',

¹ "likely" meaning any effect that may be reasonably predicted

² "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)

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. He has 12 years ecology experience and is an Associate Member of CIEEM.
- 1.2.2 Technical review has been carried out by Technical Director Mark Lang a fellow of CIEEM, a Chartered Ecologist and Chartered Environmentalist with 30 years consultancy experience.

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.
- Bedrock, soil, subsoil, surface water and ground water maps from the Geological Survey of Ireland webmapping service (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 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 PROPOSED DEVELOPMENT AND SITE CHARACTERISTICS

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, 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.
- 2.1.2 The site covers a number of locations in Paulstown. 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 also provide a more detailed plan for future development in the area.
- 2.1.3 At the time of writing, there has been no confirmation of wastewater discharge proposals. However, considering there is existing water sewer infrastructure for the town, it will be possible for future new built infrastructures to be connected to these if required, once the WWTP has been upgraded for greater capacity (it is not currently listed by UE for planned upgrades) but is currently classed as compliant but with no additional capacity.

2.2 Site Characteristics

Site location and surroundings

- 2.2.1 The area of proposed development encompasses the whole town of Paulstown, Co. Kilkenny (Figure 2). Paulstown, Co. Kilkenny (hereafter referred to as “the site”) is located in the eastern part of County Kilkenny.
- 2.2.2 The site is a small 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 In the *Kilkenny City and County Development Plan 2021-2027* the site is zoned as ‘Rural Towns and Villages’.

Geology, soils and hydrology

- 2.2.4 Mapping at 1:100,000 suggests that the bedrock underlying the majority of the town is Crinoidal wackestone/packstone limestone described as having corals and gigantoproductid brachiopods commonly throughout, with a smaller area at the east portion of the site consisting of very dark-grey argillaceous limestone described as having parts with pale fine-grained thin but regularly bedded muddy limestones with partings of black

calcareous mudstone (online information from the Geological Survey of Ireland websites <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>).

- 2.2.5 Limestone and mudstone are considered to have good porosity and permeability, meaning that it is relatively easy for surface water from the site to enter deep aquifers.
- 2.2.6 Using the Water Framework Directive maps (<https://gis.epa.ie/EPAMaps/Water>, accessed June, 2023), the status assessments for 2016 – 2021 classify water quality in the River Barrow as “poor” and the Ballywalden River, 470m south of the site, status is “moderate”
- 2.2.7 The site sits within the Bagnelstown Lower ground waterbody (GWB) (code IE SE G 157) and the Goresbridge North GWB (code IE SE G 165).

The Bagnelstown Lower GWB is a regionally important karstified aquifer. This groundwater body is considered a major aquifer. It comprises water-bearing units of pure limestone and dolomitised limestone and Calp. The dolomitisation is not complete and therefore there may be areas of undolomitized limestone that act as aquitards (EPA, 2020).

No investigations are available for the Goresbridge GWB.

- 2.2.8 In the annual report for the Paulstown Waste Water Treatment Plant (WWTP) D0339 it is classed as ‘compliant’ by the EPA.
- 2.2.9 In the Kilkenny wastewater treatment plant capacity register (published June 2023) the WWTP is listed as ‘red’ – as having no available capacity. The plant has a capacity of 500 and the population is recorded as 905 as per the 2016 census.
<https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/kilkenny/> .
- 2.2.10 The River Barrow and River Nore SAC is 2 km east of town, with the nearest known hydrological connection to this European site being the Paulstown Stream, 450m south of the town.

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 online planning portal in December 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, extensions to existing dwellings, refurbishment of existing buildings and agricultural infrastructure and buildings.
- 2.3.5 No other plans or projects were assessed as having the potential to have in-combination effects.

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

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 Policy Objectives and any European sites, there is no potential for impact and the Policy 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 plan; 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 Likely Significant Effect

- 3.2.1 The threshold for a Likely Significant Effect (LSE) is treated in the screening exercise as being above a de minimis level. The opinion of the Advocate General in CJEU case C-258/11 outlines: *"the requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."* In this report, therefore, 'relevant' European sites are those within the potential ZOI of activities associated with the construction and operation of the Project, where LSE pathways to European sites were identified through the source-pathway-receptor model.

3.3 Potential zone of Influence

- 3.3.1 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.
- 3.3.2 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.

3.4 Identification of European sites within the zone of influence

- 3.4.1 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.
- 3.4.2 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).
- 3.4.3 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), 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

3.4.4 There are no European sites within the site boundary.

3.4.5 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.

3.4.6 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 sites Standard Data Form.

3.5 Conservation Objectives

3.5.1 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.

3.5.2 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.

3.5.3 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.

- 3.5.4 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.
- 3.5.5 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.

Table 1 European sites within the Zol

European Site	Distance	Site No.	Qualifying Interests
River Barrow and River Nore SAC	2 km east	002162	<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>Glauco-Puccinellietalia maritimae</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-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 Ilex and Blechnum in the British Isles [91A0]</p> <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>
River Nore SPA	11.8 km south west	004233	<p>Kingfisher (<i>Alcedo atthis</i>) [A229]</p>
Blackstairs Mountains SAC	13.3 km south east	000770	<p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p>

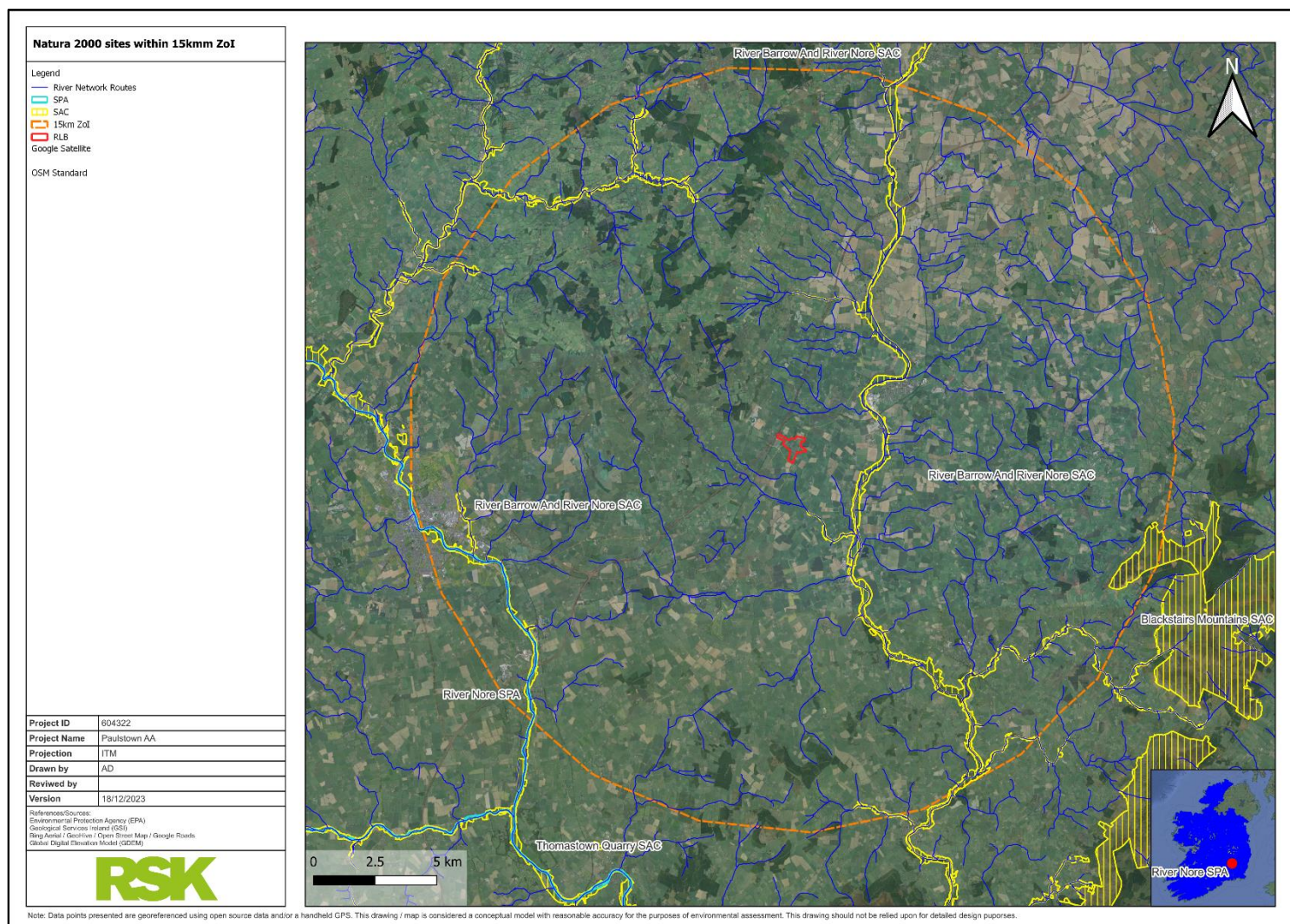


Figure 1 European sites & hydrological connectivity

4.0 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

4.1 Introduction

- 4.1.1 The key test in AA Screening is to establish whether any likelihood of significant effects on European sites can be ruled out.
- 4.1.2 Taking into consideration the potential source-pathway-receptor links identified in Section 3.1, the assessment below determines if there are any potential likely significant effects of the masterplan on the European sites identified in Table 2.

4.2 Overview

- 4.2.1 There are three European sites within 15 km of the site, these are listed in Tables 1 & 2 along with their qualifying features and conservation objectives. The closest is the River Barrow and River Nore SAC which is 2 km to the east of the site, the River Nore SPA which is approximately 11.8 km to the west and Blackstairs Mountains SAC is 13.3 km to the south-east.

4.3 Direct impacts

- 4.3.1 The site is not within any European sites. Therefore, loss, fragmentation, direct damage or direct disturbance to the qualifying habitat types within these Natura 2000 sites, and the qualifying species populations while resident there via a hydrological pathway can be ruled out.

4.4 Indirect impacts

- 4.4.1 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.
- 4.4.2 No obvious hydrological pathway exists between the site and any of the three European sites within the Zol. The nearest EPA listed watercourse that connects to a European site is the Paulstown Stream which is 450m south of the site and connects to the River Nore SAC.

- 4.4.3 As the aquifer is limestone there is potential for surface water to infiltrate the aquifer, however, as none of the European sites within the Zol are known to be aquifer dependent this can likely be ruled out.
- 4.4.4 Groundwater impacts have the potential to impact upon the QI groundwater dependent species of the River Barrow and River Nore SAC. However, as there will be no discharges to groundwater this can likely be ruled out.
- 4.4.5 It is not considered that there is potential for airborne transfer of pollution to European sites due to the distances between the site and the protected areas and any air borne pollutants would be deposited to ground before reaching any of the three European sites.
- 4.4.6 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.
- 4.4.7 These statements encompass all the sites in Tables 1 & 2. In summary, no known connectivity of the development exists via hydrological, airborne, or groundwater means to the River Barrow and River Nore SAC, the River Nore SPA, or the Blackstairs Mountains SAC.

Potential changes in water quality (construction phase)

- 4.4.8 No known pathways for significant effects on the water quality of European Sites exist.

Potential changes in water quality (operational phase)

- 4.4.9 Foul water discharge and surface water drainage plans have not been provided at the time of writing. There is existing water sewer infrastructure for the town, it will be possible and expected for new built infrastructures to be connected to these. However, there is currently no capacity at the WWTP so upgrade works would need to be undertaken before any large-scale residential developments are permitted (these would likely be subject to separate AA screening).
- 4.4.10 On the basis of existing information foul water drainage and surface water drainage discharges from the current development plans 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)

- 4.4.11 European Sites are outside of Zol for potential significant affects from airborne pollution.

Conservation Objectives

- 4.4.12 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 SACs (Section 3.2) would not be affected.

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
<p>River Barrow and River Nore SAC</p> <p>Distance: 2km east</p>	<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 maritimae</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-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: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf </p>	<p>There will be no direct effects as the project footprint is located entirely outside the designated site. There will be no land take or possibility of encroachment into the SAC as part of the construction or operational phases of the proposed plan; therefore no pathways for direct effects on the Qualifying Interests (QI) habitats of the SAC exist.</p> <p>There is no hydrological connectivity between this SAC and the site of the masterplan. Consequently, no potential pathway for significant effect on the habitat of the SAC exists.</p> <p>No other potential pathway for significant effect on this SAC exists.</p> <p>Consequently, the SAC is outside the Likely Zone of Impact and no further assessment is required.</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> (Twaiite 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>		

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
	<i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]		
River Nore SPA Distance: 11.8 km south west	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.	<p>There will be no direct effects to SCI species from habitat loss or damage as the Proposed Development is located entirely outside the designated site. There will be no land take or possibility of encroachment into the SPA as part of the construction, operational or decommissioning phases of the proposed development; therefore, no pathways for direct effects on the QI habitats of the SPA exist.</p> <p>There is no hydrological connectivity between this SPA and the site of the masterplan. Consequently, no potential pathway for significant effect on the habitat of the SPA exists.</p> <p>Consequently, the SAC is outside the Likely Zone of Impact and no further assessment is required.</p>
Blackstairs Mountains SAC Distance: 13.3 km south east	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] European dry heaths [4030]	The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest.	<p>There will be no direct effects as the project footprint is located entirely outside the designated site. There will be no land take or possibility of encroachment into the SAC as part of the construction or operational phases of the proposed plan; therefore no pathways for direct effects on the QI habitats of the SAC exist.</p> <p>There is no hydrological connectivity between this SAC and the site of the masterplan. Consequently, no potential pathway for significant effect on the habitat of the SAC exists.</p> <p>No other potential pathway for significant effect on this SAC exists.</p>

Site name	Qualifying interests	Conservation Objectives	Potential Significant Effects
			Consequently, the SAC is outside the Likely Zone of Impact and no further assessment is required.

Table 2 assessment of significant impacts

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 The site covers a number of locations in Paulstown. 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 also provide a more detailed plan for future development in the area.
- 4.5.3 A search of planning applications identified no developments which would directly impact the habitats that are likely to be functionally linked to European sites that fall within the zone of influence (Zol) of the proposed development.
- 4.5.4 The developments listed in Table 3 below have the potential to impact the River Barrow and River Nore SAC.

Table 3 list of in-combination developments

Applicant for Development and Brief Description	Potential for In-combination Effect	Conclusion Regarding In-combination effect
Installation of a waste water treatment plant and associated percolation area, within the curtilage of Duninga House. Potential for pollution into SAC.	None envisioned as Proposed Masterplan not likely to impact the SAC.	No further assessment required.
Duninga House the construction of an extension to hotel to include 20 no. bedroom suites. Potential for pollution into SAC.	None envisioned as Proposed Masterplan not likely to impact the SAC.	No further assessment required.
Permission to erect a dwellinghouse and septic tank at Doninga, Goresbridge, Co. Kilkenny. Potential for pollution into SAC.	None envisioned as Proposed Masterplan not likely to impact the SAC.	No further assessment required.
Horse sales facility to comprise; (a) Auction room, offices, staff and toilet facilities; (b) Restaurant, kitchen, stores and bar;(c) Short-stay stables, feedstore, barns and dungstead; (d) Indoor arena and parade ring; (e) Veterinary office. Potential for pollution into SAC.	None envisioned as Proposed Masterplan not likely to impact the SAC.	No further assessment required.

Applicant for Development and Brief Description	Potential for In-combination Effect	Conclusion Regarding In-combination effect
Convert an existing dilapidated mill into a domestic dwelling house. Potential for pollution into SAC via Paulstown Stream.	None envisioned as Proposed Masterplan not likely to impact the SAC.	No further assessment required.
Renovation of house, conversion of existing structures to habitable use and domestic uses, two-storey extension and garage on a 0.4 hectare site. The proposed development includes effluent disposal system and soil polishing filter. Potential for pollution into SAC via Paulstown Stream.	None envisioned as Proposed Masterplan not likely to impact the SAC.	No further assessment required.

5.0 SCREENING STATEMENT

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 Having considered the indicative proposals, we conclude that this application meets the first conclusion, because there is no identifiable risk of any likely significant effects on any European sites.
- 5.1.3 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 or project, individually or in combination with other plans or projects, will not have any significant effect on a European protected site. Consequently, we conclude that Appropriate Assessment is not required.

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FIGURES

Figure 2. Paulstown site boundary



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