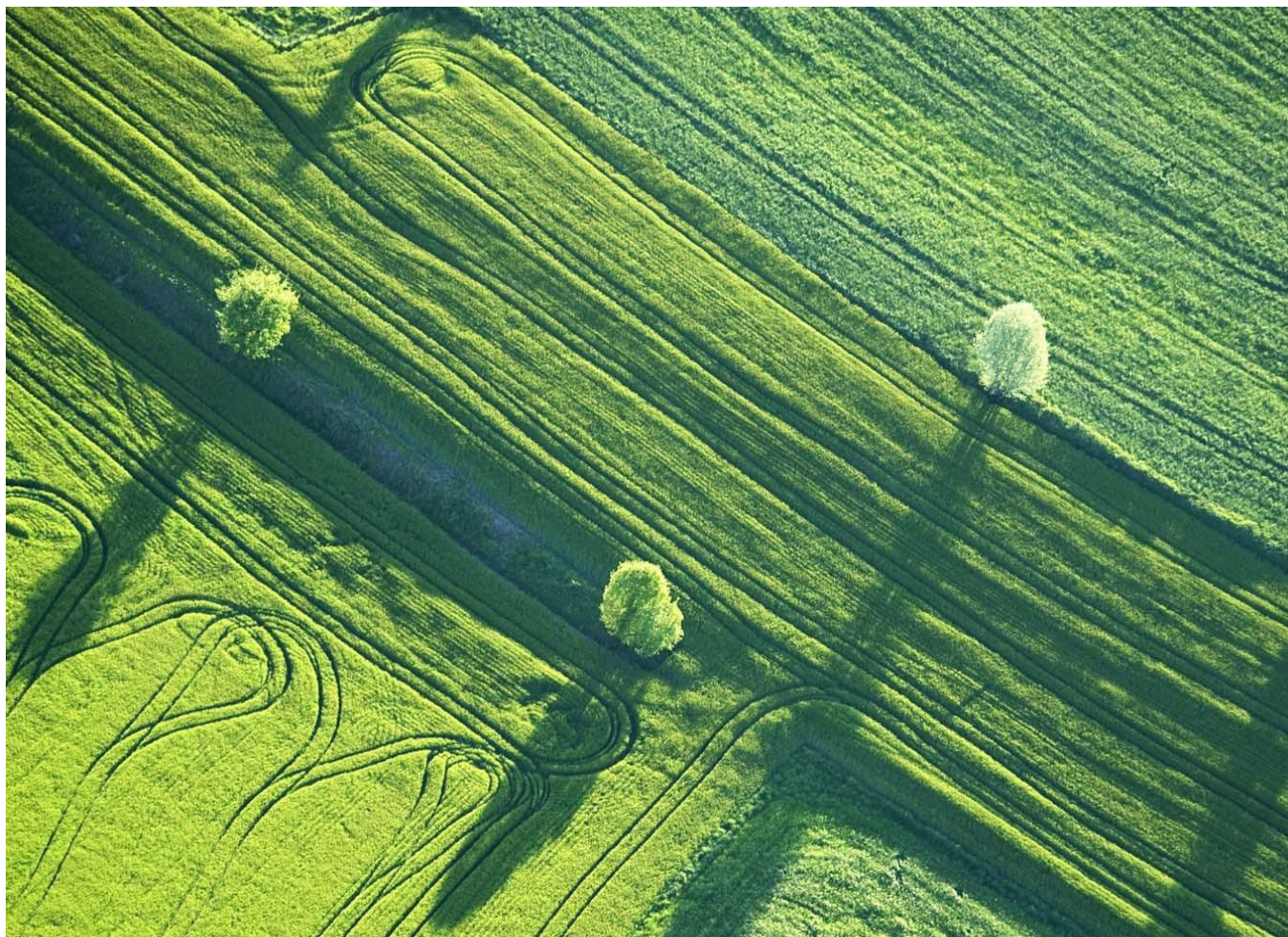




Kilkenny County Council

Kilmacow Masterplan

Screening for Appropriate Assessment

604322

JANUARY 2025

RSK



RSK GENERAL NOTES

Project No.: 604322

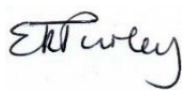
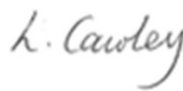
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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

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 Kilmacow, Co. Kilkenny. The report has been prepared by RSK Ireland on behalf of Kilkenny County Council.

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.

Likely significant effects from the masterplan on the Lower River Suir SAC, individually or in combination with other plans or projects, could not be ruled out with certainty. Namely the impact on the conservation objectives on the QI species/habitats of this site via the spread of non-native invasive species from a planned water sports centre. Consequently, an Appropriate Assessment will be required.

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1.0 INTRODUCTION

1.1 Background to Appropriate Assessment

1.1.1 European 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 European 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 in Kilmacow, 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 Draft Masterplan, alone or in combination with other plans and projects, is likely¹ to result in significant² effects on any European site within the 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 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 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 "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)

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 a full Member of CIEEM.
- 1.2.2 Technical review has been carried out by...

2.0 METHODS

2.1.1 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 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, 2018).
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2019).

2.1.2 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.

2.1.3 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.

2.1.4 All web-based resources were accessed in February 2024.

2.2 Source-Pathway-Receptor

2.2.1 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 project and any European sites, there is no potential for impact and the project can be 'screened out'.

2.3 Zone of Influence

2.3.1 The zone of influence of a Proposed Project 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. The zone of influence was established using the Source-Pathway-Receptor framework.

2.3.2 For the risk of a significant effect to occur there must be a 'source', such as a construction site; a 'receptor', such as a designated site for nature conservation; and a pathway between the source and the receptor, such as a watercourse that links the construction site to the designated site. A construction site or completed development may also create a barrier to movement, for example by preventing the migration of fauna along a river corridor, or by obstructing the migration of birds.

2.3.3 To identify the European sites that potentially lie within the Zol of the Scheme, a Source-Path-Receptor (S-P-R) model was adopted, as described in OPR PN01 (OPR 2021). This note was published to provide guidance on screening for AA during the planning process. Methods for the identification of potential receptors, and the pathways of connectivity to those receptors, are currently developing. A designated site will only be at risk from likely significant effects where a Source-Pathway-Receptor (S-P-R) link exists between the proposed Scheme and the designated site. 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 Scheme and any European sites, there is no potential for impact and the Scheme can be 'screened out'.

2.3.4 Sources of impacts are related to the nature, size, and location of the proposed Scheme. Pathways refer to the linkages between the Scheme and European sites, and receptor refers to the location, nature and sensitivities of the qualifying species and habitats within those European sites linked to the proposed Scheme, and the ecological conditions

underpinning their survival (i.e., the specified conservation objectives for the impacted European site) (OPR, 2021).

- 2.3.5 Although there may be a risk of an impact it may not necessarily occur, and if it does occur, it may not be significant. Identification of a potential effect means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the potential effect and the characteristics of the receptor.
- 2.3.6 The relevant European sites within the Zol were identified based on the following:
- Identification of potential sources of effects based on the Project description, including changes to potentially suitable ex-situ habitats at the wind farm site (i.e., habitats utilised by Special Conservation Interest (SCI) bird species outside of their designated SPAs).
 - Use of up-to-date GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) to identify European sites which could potentially be affected by the Project.
 - Identification of potential pathways between the Scheme and any European sites within the Zol of any of the identified sources of effects.
 - The catchment data were used to establish or discount potential hydrological connectivity between the Scheme and any European sites.
 - Groundwater and bedrock information was used to establish or discount potential hydrogeological connectivity between the Scheme and any European sites.
 - Air and land connectivity were assessed based on Scheme details and proximity to European sites.
 - Consideration of potential indirect pathways (e.g., impacts to flight paths, ex-situ habitats, etc.).

2.4 Impact Pathways

- 2.4.1 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). Pathways for impacts on designated sites are hydrological connections to watercourses via 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 Zol for hydrological impacts can be several kilometres. Spills to rivers have been known to result in severe short-term impacts on macroinvertebrate fauna and fish discernible up to 4km with ecological effects up to 10km³, but for air and land it is considered to be rarely more than c.100 m⁴.

³ Smith P, MCIWEM, Snook D, Muscott A, Smith A. (2009). Effects of a diesel spill on freshwater macroinvertebrates in two urban watercourses, Wiltshire UK. *Water and Environment Journal* 24 (2010) 249-260

⁴ Holman et al (2014). *IAQM Guidance on the assessment of dust from demolition and construction*, Institute of Air Quality Management, London. www.iaqm.co.uk/text/guidance/construction-dust-2014.pdf

- 2.4.2 The Zol was informed by the nature and scale of the proposed scheme, the duration of construction works, and the likely implementation of routine practice and procedures for managing surface water during construction.
- 2.4.3 A geographical representation of the likely zone of influence was produced in GIS using the Proposed Scheme boundary and publicly available maps (Figure 2). This was used in combination with NPWS shapefiles to identify the boundaries of European sites in relation to the likely zone of influence.

2.5 Likely Significant Effect

- 2.5.1 The Commission's 2018 Notice (EC, 2019) stated that the appropriate assessment procedure under Article 6(3) is triggered not by the certainty but by the likelihood of significant effects, arising from plans or projects regardless of their location inside or outside a protected site. Such likelihood exists if significant effects on the site cannot be excluded on the basis of objective information. The significance of effects should be determined in relation to the specific features and environmental conditions of the site concerned by the plan or project, taking particular account of the site's conservation objectives and ecological characteristics. Significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned. The Commission's guidance acknowledges that against this background, what may be significant in relation to one site may not be in relation to another.
- 2.5.2 The threshold for a Likely Significant Effect ("LSE") is treated in the screening exercise as being above a de minimis level. A de minimis effect is a level of risk that is too small to be concerned with and results in no appreciable effect when considering ecological requirements of an Annex I habitat or a population of Annex II species present on a European site necessary to ensure their favourable conservation condition. This view is confirmed by the CJEU in paragraph 48 of the Judgment of the Court in case C-258/11: *"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"*. The Court of Justice of the European Union (CJEU) has confirmed that a significant effect is triggered when:
 - there is a probability or a risk of a plan or project having a significant effect on a European site;
 - the plan is likely to undermine the site's conservation objectives; and
 - a significant effect cannot be excluded on the basis of objective information.
- 2.5.3 EC (2021) defines a LSE as being *"any effect that may reasonably be predicted as a consequence of a plan or project that would negatively and significantly affect the conservation objectives established for the habitats and species significantly present on the Natura 2000 site. This can result from either on-site or offsite activities, or through combinations with other plans or projects"*.

2.6 No Consideration of Mitigation Measures at Screening Stage

- 2.6.1 In determining whether or not likely significant effects will occur or can be excluded in the Stage 1 appraisal, measures intended to avoid or reduce the harmful effects of the proposed development on European sites, (i.e. “mitigation measures”) or best practice measures have not been taken into account in this screening stage appraisal. This approach is consistent with up-to-date EU guidance (EU,2019; EC,2021; EC, 2022) and the case law of the Court of Justice of the European Union (CJEU) arising from judgment in *People Over Wind* (C-323/17). In *Eco-Advocacy* (C-721/21), the CJEU found that this does not preclude standard features, which are inherent to a project, and are incorporated into a project’s design, not with the aim of reducing its negative effects.

This screening does not attempt to formulate any measures previously considered to be mitigation measures in light of the emerging case law from the CJEU by describing them as features that have been incorporated into the proposed 3FM Project as ‘standard features’. The AASR has been prepared on the basis that mitigation measures have not been taken into account.

2.7 Consideration of ex-situ effects

- 2.7.1 EC (2019) advises that Member States, both in their legislation and in their practice, allow for the Article 6(3) safeguards to be applied to any development pressures, including those which are external to European sites but which are likely to have significant effects on any of them. In that regard, consideration has been given in this AASR to implications for habitats and species located both inside and outside of the European sites considered in the screening appraisal with reference to those sites’ Conservation Objectives where effects upon those habitats and/or species are liable to affect the conservation objectives of the sites concerned.

2.8 Conservation objectives

- 2.8.1 The conservation objectives for each European site are to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the site has been selected. The favourable conservation status of a habitat is achieved when:

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

The favourable conservation status (or condition, at a site level) of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;

- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

EC (2022) advises that an assessment should be completed for all of the designating features (species, habitat types) that are significantly present on the site (habitats and species with A, B or C, but not D, site assessment in the Standard Data Form for the site) in view of their conservation objectives. EC (2022) additionally notes that “the lack of site-specific conservation objectives or the establishment of conservation objectives, which are not in line with the required standard, as specified in the Commission note on “Setting conservation objectives of Natura 2000 sites” (EC, 2012), jeopardises compliance with the requirements of Article 6(3)”.

2.9 Site-specific conservation objectives

- 2.9.1 NPWS began preparing detailed Site-Specific Conservation Objectives (SSCOs) for European sites in Ireland in 2011. The European sites in closest proximity to the proposed development which are considered in some detail in this report have all had SSCO set.

The published SSCO documents used in the appraisal are identified in Section 4 of this document. The published SSCO documents note that an appropriate assessment based on the most up-to-date conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.

The most up-to-date Conservation Objectives for the European sites being considered, and details in relation to the Qualifying Interests and Special Conservation Interests of these European sites is based on publicly available data on these European Sites, sourced from the NPWS website in June 2024.

2.10 In-combination Effects

- 2.10.1 Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. As set out in the Commission’s 2018 Notice (EC, 2019), significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned. Whilst the Directive does not explicitly define which other plans and projects are within the scope of the in-combination provision of Article 6(3), it is important to note that the underlying intention of this provision is to take account of cumulative impacts, and these will often only occur over time.

In that context, one must consider plans or projects which are completed, approved but uncompleted, or proposed. EC (2019) specifically advises [on p43] that “*as regards other proposed plans or projects, on grounds of legal certainty it would seem appropriate to restrict the in-combination provision to those which have been actually proposed, i.e. for which an application for approval or consent has been introduced*”. This AASR has been

prepared so as to assess the effects of other proposed projects for which an application for consent has been submitted but not determined. EC (2021) additionally advises that:

- an in-combination assessment is often less detailed at the screening stage than in the appropriate assessment;
- there is still a need to identify all other plans or projects that could give rise to cumulative impacts with the plan or project in question and
- if this analysis cannot reach definitive conclusions, it should at least identify any other relevant plans and projects that should be scrutinised in more detail during the appropriate assessment.

2.11 Limitations

2.11.1 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.

3.0 DESCRIPTION OF THE PROJECT AND SITE CHARACTERISTICS

3.1 Description of the Plan

- 3.1.1 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.
- 3.1.2 Some elements mentioned in the plan include:
- A 'River Park' will act as a secondary spatial element, its form informed by the location of the River Blackwater, linked to a new proposed 'Green Loop' linking Kilmacow Upper and Lower. This green infrastructure will provide enhanced connectivity between Kilmacow Upper and Lower and serve as a tourism asset promoting active tourism and enabling visitors to explore the village's rich built and natural heritage, whilst supporting the health and well-being of residents.
 - Develop a 'Green Loop' walk with connection to the River Blackwater, which will cater for new recreational activities such as canoeing, swimming etc., for residents and visitors alike. The new loop walk will enhance the relationship with the River Blackwater and serve as a tourism asset, promoting active tourism and enabling visitors to explore the village's rich heritage and biodiverse hinterlands.
 - A new centre dedicated to water-based activities such as kayaking, canoeing, swimming, fishing etc.
 - Road Improvements and Traffic Calming.
 - To provide a new link road, linking the Narrabaun Road to the Dangan Road, north of the church lands, which will create a new urban street, enhance pedestrian and vehicular connectivity and provide appropriate access to development lands.
 - Examine the feasibility of providing Campervan parking spaces with basic services in a location proximate to the river within or bounding the village.
 - Explore the possibility of creating a new public amenity space within the village and /or securing lands with the view of providing allotments for use by local residents.
 - Expansion of Sports Complex - Explore upgraded / additional changing facilities, flood lighting and all weather facilities.
- 3.1.3 The site covers the town of Kilmacow. 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.

- 3.1.4 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.

3.2 Environmental setting

Site location and surroundings

- 3.2.1 The area of proposed development encompasses the whole town of Kilmacow, Co. Kilkenny (Figure 1). Kilmacow, Co. Kilkenny (hereafter referred to as “the site”) is located in the southern part of County Kilkenny.
- 3.2.2 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.
- 3.2.3 In the *Kilkenny City and County Development Plan 2021-2027* the site is zoned as ‘Rural Towns and Villages’.

Geology

- 3.2.4 The bedrock underlying the town is Tournaisian limestone. It is from the Paleozoic, Carboniferous and Mississippian geological age.
- 3.2.5 The GSI Rock Unit Groups are known as: Dinantian Lower Impure Limestones, Dinantian Pure Unbedded Limestones
- 3.2.6 The site sits upon three different bedrock aquifers (An aquifer is a body of rock that holds groundwater. This aquifer is capable of supplying locally important supplies (e.g., smaller public water supplies, group schemes));
- ‘Rkd’ is described as regionally important karstified (diffuse);
 - ‘LI’ is a locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones;
 - ‘Lm’ is locally Important Aquifer - Bedrock which is Generally Moderately Productive
- 3.2.7 Groundwater Vulnerability is a term used to represent the natural ground characteristics that determine the ease with which groundwater may be contaminated by human activities. The town sits upon 4 different GSI Vulnerability descriptions: Extreme; High; Moderate
- Groundwater in Extreme and High categories have natural characteristics that make it highly vulnerable to contamination by human activities.
- 3.2.8 Limestone is considered to have good porosity and permeability, meaning that it is relatively easy for surface water from the site to enter deep aquifers.

Soils

- 3.2.9 The soils of the town are 'Acid Brown Earths, Brown Podzolics' which are described as 'Acid Deep Well Drained Mineral Drained Mineral' that are 'Deep well drained mineral - Derived from mainly non-calcareous parent materials'.
- 3.2.10 The subsoil is a till type. Till is sediment deposited by or from glacier ice. It is Devonian sandstone till whose texture is sandy.

Hydrology

- 3.2.11 Using the Water Framework Directive maps (<https://gis.epa.ie/EPAMaps/Water>, accessed January, 2024), the status assessments for 2016 – 2021 classify water quality in the River Blackwater as "Moderate".
- 3.2.12 The most recent Q Value assessment states that *the Kilmacow Blackwater remains in the same condition as in 2017, with Good ecological quality at the upper most site, but declining to unsatisfactory Moderate ecology at the other two sites.*
- 3.2.13 Under the WFD the area is listed as an 'Area for Restoration' under the Local Authorities Waters Programme (LAWPRO).
- 3.2.14 The site sits within the Clonmel ground waterbody (GWB) (code IE SE G 040). It is a karstic waterbody whose overall groundwater status is 'Good'.
- 3.2.15 The groundwater is listed as having 'Anthropogenic Pressures'.
- 3.2.16 The GWB is protected as a 'Special Area of Protection-Conservation Objective' for SAC species. Identification and protection of WFD Ground Water Bodies that intersect with Designated SACs Conservation Objective Species for the EU Water Framework Directive.
- 3.2.17 There are two storm water discharge locations from the town to the Blackwater.
- 3.2.18 In the 2018 annual report for the Kilmacow Waste Water Treatment Plant (WWTP) D0525 it is classed as 'compliant' by the EPA.
- 3.2.19 In the Kilkenny wastewater treatment plant capacity register (published June 2023) the WWTP is listed as 'Green' – as having available capacity. The plant has a capacity of 2500 and the population is recorded as 647 as per the 2016 census.
<https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/kilkenny/> .

Ecology

- 3.2.20 The Lower River Suir SAC is 3.1 km south of town, with the nearest known hydrological connections to this European site being the river Blackwater (Kilmacow) and the Narrabaun (South) stream.
- 3.2.21 Under freshwater pearl mussel sensitive areas the site is listed as having 'Previous record Margaritifera, current status unknown'.
- 3.2.22 One record of Otter (*Lutra lutra*) within a 2km square was found on the National Biodiversity Data Centre (NBDC).

3.3 Other nearby developments (potential in-combination effects)

- 3.3.1 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.
- 3.3.2 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.
- 3.3.3 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.
- 3.3.4 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.
- 3.3.5 No other plans or projects were assessed as having the potential to have in-combination affects.

3.4 Policy Context

3.4.1 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.

3.4.2 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.

3.4.3 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.

3.4.4 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.

3.4.5 **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.

3.4.6 **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.

3.4.7 **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.

3.4.8 **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.”

4.0 IDENTIFICATION OF RELEVANT EUROPEAN SITES

4.1 Source-Pathway-Receptor

- 4.1.1 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'.
- 4.1.2 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.
- 4.1.3 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:
- loss.
 - Disturbance/displacement of ex-situ species.
 - Changes associated water quality and hydrology.
 - Introduction and/or transfer of non-native invasive species.

4.2 Zone of Influence

- 4.2.1 The 'zone of influence' for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018).
- 4.2.2 There are no European sites within the site boundary.
- 4.2.3 A zone of influence (Zoi) 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 Lower River Suir SAC and the River Barrow and River Nore SAC, which are protected watercourses. Hydrological pathways extend over greater distances than air/noise pollution pathways and therefore, 15 km was deemed to be a suitable Zoi.

- The DoEHLG 2010 guidance that recommends 15km ZOI for plans.

4.2.4 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 Natura 2000 Standard Data Form.

4.3 Conservation Objectives

4.3.1 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.

4.3.2 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.

4.3.3 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.

4.3.4 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.

4.3.5 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
Lower River Suir Special Area of Conservation	3.1 km south east	002137	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Water courses of plain to montane levels with the <i>Ranunculum fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels Old sessile oak woods with Ilex and Blechnum in the British Isles Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) <i>Taxus baccata</i> woods of the British Isles <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) <i>Austropotamobius pallipes</i> (White-clawed Crayfish) <i>Petromyzon marinus</i> (Sea Lamprey) <i>Lampetra planeri</i> (Brook Lamprey) <i>Lampetra fluviatilis</i> (River Lamprey) <i>Alosa fallax fallax</i> (Twaite Shad) <i>Salmo salar</i> (Salmon) <i>Lutra lutra</i> (Otter)
River Barrow and River Nore Special Area of Conservation	8.7 km east	002162	Estuaries Mudflats and sandflats not covered by seawater at low tide Reefs Salicornia and other annuals colonising mud and sand Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Mediterranean salt meadows (<i>Juncetalia maritimi</i>) Water courses of plain to montane levels with the <i>Ranunculum fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation European dry heaths Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels Petrifying springs with tufa formation (<i>Cratoneurion</i>) Old sessile oak woods with Ilex and Blechnum in the British Isles Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) <i>Austropotamobius pallipes</i> (White-clawed Crayfish)

European Site	Distance	Site No.	Qualifying Interests
			<i>Petromyzon marinus</i> (Sea Lamprey) <i>Lampetra planeri</i> (Brook Lamprey) <i>Lampetra fluviatilis</i> (River Lamprey) <i>Alosa fallax fallax</i> (Twaite Shad) <i>Salmo salar</i> (Salmon) <i>Lutra lutra</i> (Otter) <i>Trichomanes speciosum</i> (Killarney Fern) <i>Margaritifera durrovensis</i> (Nore Pearl Mussel)
Hugginstown Fen Special Area of Conservation	10.7 km north west	000404	Alkaline fens

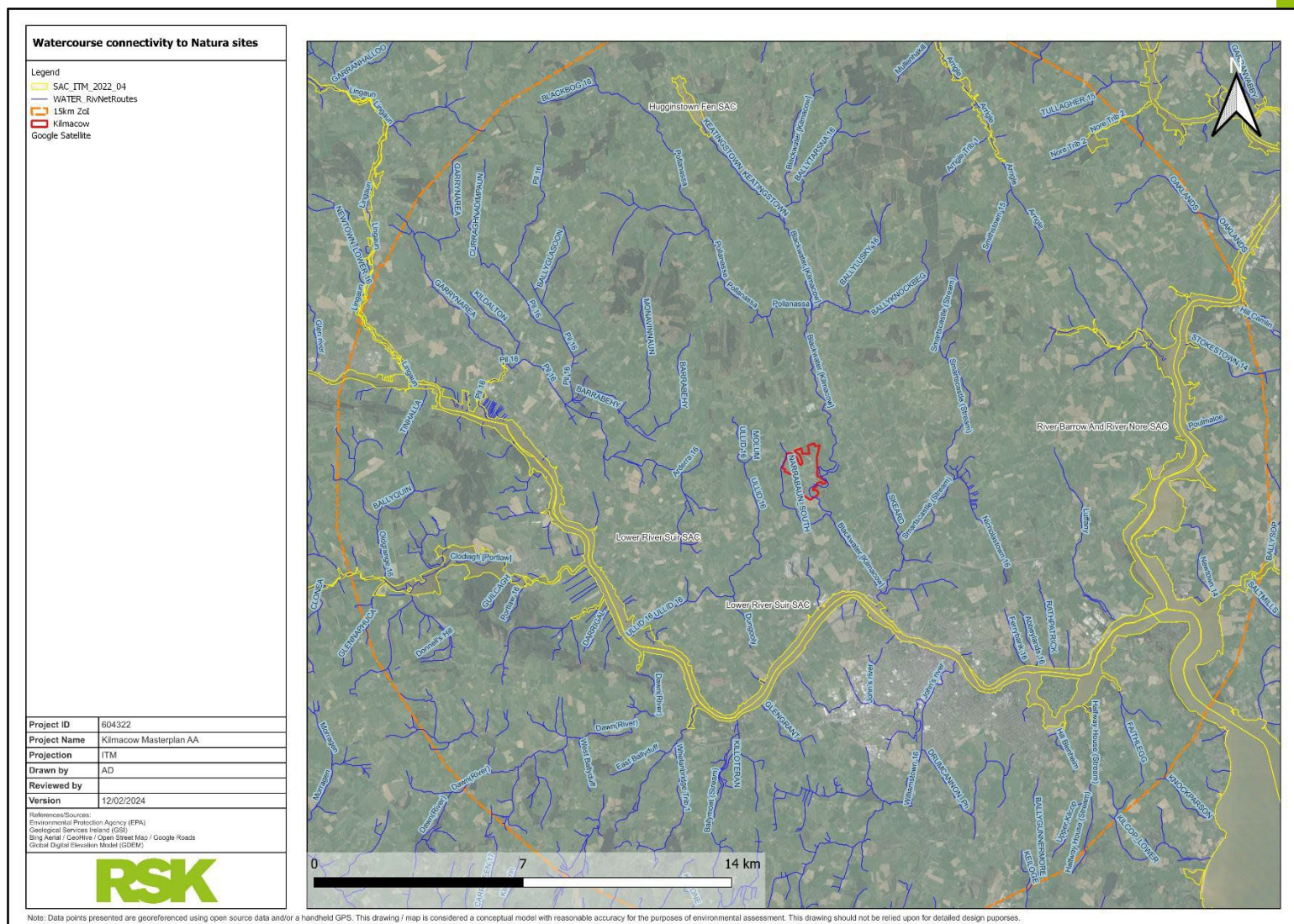


Figure 1 Watercourse connectivity to European sites

5.0 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

5.1 Introduction

- 5.1.1 The key test in AA Screening is to establish whether any likelihood of significant effects on European sites can be ruled out.
- 5.1.2 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.

5.2 Overview

- 5.2.1 There are three European sites within the potential zone of influence of the site, these are listed in Tables 1 & 2 along with their qualifying features and conservation objectives. The closest is the Lower River Suir SAC which is 3.1 km to the south of the site, and the River Barrow and River Nore SAC which is approximately 8.7 km to the east and Hugginstown Fen SAC is 10.7 km to the north.

5.3 Direct impacts

- 5.3.1 The site is not within or adjacent to any European sites. There are no elements of the proposed development encroaching into any European sites. Therefore, 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 be ruled out.

5.4 Indirect impacts

- 5.4.1 The further development of the area adjacent to or within the River Blackwater could introduce increased loading pressures for operational phase effects from tourism and recreation. Tourism and recreation introduce sources for effects such as trampling, destruction of vegetation, littering, fishing, introduction of invasive species etc. as well as potential infrastructure development to provide facilities and services such as piers, toilets, visitor centres etc.
- 5.4.2 Obvious hydrological pathways exist between the site and one of the European sites within the Zol. Two EPA listed watercourses connect the site to the Lower River Suir SAC. The hydrological distance from the site to the SAC are; 4.6 km on the Blackwater (Kilmacow), and 6.9 km on the Narrabaun (South).
- 5.4.3 The above listed watercourses are also both potentially supporting habitat for Lower River Suir SAC qualifying species such as Otter, fish, White-clawed Crayfish and Freshwater Pearl Mussel. There is potential for loss or fragmentation of functionally linked lands,

supporting habitat and disturbance to QI species during construction and operational phases.

- 5.4.4 As the aquifer is limestone there is potential for surface water to infiltrate the aquifer, however, as none of the European sites within the ZOI are known to be aquifer dependent this can likely be ruled out.
- 5.4.5 Groundwater impacts have the potential to impact upon the QI groundwater dependent species of the Lower River Suir SAC. The groundwater body is a Special Area of Protection-Conservation Objective. Detailed plans have not been provided at this point.

Introduction and/or transfer of non-native invasive species

- 5.4.6 The spread of invasive non-native species has the potential to occur via the recreational water sports activities planned for the river Blackwater (Kilmacow). This would impact the conservation objectives of the following Lower River Suir SAC QI habitats:
- Atlantic salt meadows (*Glauco-Puccinellietalia maritima*)
 - Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation
 - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
 - Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
 - *Taxus baccata* woods of the British Isles

Potential changes in water quality (construction phase)

- 5.4.7 Pathways for potential significant effects on the water quality of European Sites exist via two watercourses; the Blackwater (Kilmacow) and the Narrabaun (South). Both of these watercourses are also potentially supporting habitats for SAC species such as Otter, Salmon, White-clawed Crayfish and Freshwater Pearl Mussel.

Potential changes in water quality (operational phase)

- 5.4.8 Recreational activities planned for the Blackwater (Kilmacow) have the potential to impact on water quality within the Blackwater (Kilmacow) and within the Lower River Suir SAC via the hydrological connection between the two rivers.
- 5.4.9 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. There is currently capacity at the WwTP.
- 5.4.10 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)

- 5.4.11 All European Sites are outside of the Zol for potential significant affects from airborne pollution (Holman et al, 2014).

Disturbance/displacement of ex-situ species

- 5.4.12 The potential for disturbance and displacement effects of ex-situ QI species of the Lower River Suir SAC using functionally linked land during the construction and operation of elements of the proposed plan that are in or adjacent to the Blackwater. Species such as Otter, Salmon, White-clawed Crayfish, Sea Lamprey, Brook Lamprey, River Lamprey and Twaite Shad.

Conservation Objectives

- 5.4.13 In identifying the potential of likely significant impact to River Barrow and River Nore SAC and Hugginstown Fen SAC, the assessment in the preceding paragraphs further implies that the delivery of conservation objectives for those SACs would not be affected. With respect to Lower River Suir SAC effects are uncertain.

Site Name	Qualifying Interests	Potential Significant Effects
Lower River Suir SAC Distance 3.1 km south	Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) <i>Taxus baccata</i> woods of the British Isles <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) <i>Austropotamobius pallipes</i> (White-clawed Crayfish) <i>Petromyzon marinus</i> (Sea Lamprey) <i>Lampetra planeri</i> (Brook Lamprey) <i>Lampetra fluviatilis</i> (River Lamprey) <i>Alosa fallax fallax</i> (Twait Shad) <i>Salmo salar</i> (Salmon) <i>Lutra lutra</i> (Otter)	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. The Plan provides for infrastructural development including provisions for transport, urbanisation, streetscape works, tourism and recreation facilities. These provisions introduce sources for effects through construction phase such as habitat destruction and/or fragmentation, light pollution, hydrological interactions, disturbance effects etc. Similarly, the further development of the village and the River Blackwater could introduce increased loading pressures for operational phase effects from tourism and recreation. Tourism and recreation introduce sources for effects such as trampling, destruction of vegetation, littering, fishing, introduction of invasive species etc. as well as potential infrastructure development to provide facilities and services such as piers, toilets, visitor centres etc. There is hydrological connectivity between the site and the SAC via the Blackwater (Kilmacow) and the Narrabaun (South) watercourses. Current plans mention a river park, a green loop walk and a water sports activity centre on the Blackwater river. These sources could result in habitat loss in functionally linked lands, disturbance and barrier effects on ex-situ QI species, interactions with water quality and/habitat fragmentation and introduction of invasive species, if they are not planned and or managed correctly. This European site exists outside the Plan boundary, however there are hydrological pathways for potential indirect effects to the ecological integrity of the site from the sources identified above. There is potential to impact on the conservation objectives of all of the QI species and habitats of this site. Therefore, further consideration is required under, Article 6(3), Stage 2 AA.

Site Name	Qualifying Interests	Potential Significant Effects
River Barrow and River Nore SAC Distance: 8.7 km east	Estuaries Mudflats and sandflats not covered by seawater at low tide Reefs Salicornia and other annuals colonising mud and sand Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Mediterranean salt meadows (<i>Juncetalia maritimi</i>) Water courses of plain to montane levels with the <i>Ranunculum fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation European dry heaths Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels Petrifying springs with tufa formation (<i>Cratoneurion</i>) Old sessile oak woods with Ilex and Blechnum in the British Isles Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) <i>Austropotamobius pallipes</i> (White-clawed Crayfish) <i>Petromyzon marinus</i> (Sea Lamprey) <i>Lampetra planeri</i> (Brook Lamprey) <i>Lampetra fluviatilis</i> (River Lamprey)	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. There is hydrological connectivity between this SAC and the site of the masterplan. The river Blackwater is connected to the Suir which in turn is connected to the Barrow. However, as the hydrological distance between the site and this SAC is 17 km, significant effects can be ruled out. No other potential pathway for significant effect on this SAC exists. Consequently, the SAC is outside the Likely Zone of Impact and no further assessment is required.

Site Name	Qualifying Interests	Potential Significant Effects
	<i>Alosa fallax fallax</i> (Twaite Shad) <i>Salmo salar</i> (Salmon) <i>Lutra lutra</i> (Otter) <i>Trichomanes speciosum</i> (Killarney Fern) <i>Margaritifera durrovensis</i> (Nore Pearl Mussel)	

Site Name	Qualifying Interests	Potential Significant Effects
Hugginstown Fen SAC 10.7 km north	Alkaline fens	There is no hydrological connectivity between this SAC and the site of the masterplan. The plan does not mention tourism or recreational activities near to this SAC. Consequently, no potential pathway for significant effect on the habitat of the SAC exists. No other potential pathway for significant effect on this SAC exists. Consequently, the SAC is outside the Likely Zone of Impact and no further assessment is required.

Table 2 assessment of significant impacts

5.5 Potential in-combination effects

- 5.5.1 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.
- 5.5.2 The site covers a number of locations in Kilmacow. 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.
- 5.5.3 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.
- 5.5.4 The majority of developments found on the search were for one off housing developments and house extension schemes. Those listed in Table 3 below have the potential to impact the Lower River Suir SAC by way of hydrological connection via the River Blackwater.

Table 3 list of in-combination developments

Applicant for Development and Brief Description	Potential for In-combination Effect	Conclusion Regarding In-combination effect
KILMACOW SPORTS COMPLEX COMMITTEE. to remove the existing bridge deck structure and reinstate this with a new precast concrete bridge deck with associated site works	While there is potential for not significant in-combination pollution to Blackwater, this project has gone through the AA process and effects were ruled out.	No further assessment required.
KILMACOW GAA CLUB To demolish the existing storage sheds and un-assemble the existing open air ball wall and relocate. The relocation of the existing open air ball wall with enclosed training area will incorporate the construction of a new single storey gym.	While there is potential for not significant in-combination pollution to Blackwater, this project has gone through the AA process and effects were ruled out.	No further assessment required.

6.0 SCREENING DETERMINATION

- 6.1.1 Having considered the indicative proposals in the masterplan it cannot be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, would be likely to have a significant effect on significant effects on the conservation objectives of all QI species and habitats of the Lower River Suir SAC.

There is hydrological connectivity between the Masterplan area and the SAC via the Blackwater (Kilmacow) and the Narrabaun (South) watercourses. The Masterplan mention a river park, a green loop walk and a water sports activity centre on the Blackwater river. These proposals could result in habitat loss in functionally linked lands, disturbance and barrier effects on ex-situ QI species, interactions with water quality and/habitat fragmentation, and introduction of invasive species, if they are not planned, managed or mitigated correctly.

Appropriate assessment is therefore required.

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