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C1082: GORE'S BRIDGE PEDESTRIAN IMPROVEMENT SCHEME

AA SCREENING REPORT

**For
Kilkenny County Council and Carlow County Council**

25 January 2024

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TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	PROJECT CONTRACTUAL BASIS & PARTIES INVOLVED.....	1
1.2	LEGISLATIVE CONTEXT	2
1.3	METHODOLOGY AND APPROACH	4
1.4	SCOPE OF WORKS.....	4
1.5	LIMITATIONS	5
2	DESCRIPTION OF THE EXISTING ENVIRONMENT.....	6
2.1	PROJECT DESCRIPTION.....	6
2.2	SITE SETTING AND LOCATION.....	6
2.3	SURROUNDING LAND USE.....	8
2.4	HYDROLOGY	8
3	SCREENING FOR APPROPRIATE ASSESSMENT.....	11
3.1	SCREENING PROCESS	11
3.2	IDENTIFICATION OF RELEVANT EUROPEAN SITES.....	12
3.3	ASSESSMENT CRITERIA	18
3.3.1	EXCLUSION FROM APPROPRIATE ASSESSMENT.....	18
3.3.2	ELEMENTS OF WORK WITH POTENTIAL TO GIVE RISE TO EFFECTS.....	18
3.3.3	IDENTIFICATION OF POTENTIAL EFFECTS AND SCREENING OF SITES.....	18
3.4	ASSESSMENT OF SIGNIFICANCE OF POTENTIAL EFFECTS	19
3.4.1	LAND TAKE/HABITAT LOSS.....	20
3.4.2	RESOURCE REQUIREMENTS.....	20
3.4.3	DURATION OF WORKS.....	21
3.4.4	EMISSIONS (DISPOSAL TO LAND, WATER OR AIR)	21
3.4.5	EXCAVATION REQUIREMENTS/EROSION/SEDIMENTATION	21
3.4.6	TRANSPORTATION REQUIREMENTS.....	22
3.4.7	DURATION OF CONSTRUCTION, OPERATION, DECOMMISSIONING	22
3.4.8	HABITAT REDUCTION	22
3.4.9	SPECIES DISTURBANCE.....	22
3.4.10	HABITAT OR SPECIES FRAGMENTATION.....	22
3.4.11	CHANGES IN KEY INDICATORS OF CONSERVATION VALUE	23
3.4.12	CLIMATE CHANGE.....	23
3.4.13	COMBINATION EFFECTS WITH OTHER PROJECTS.....	23
4	SUMMARY AND CONCLUSION	27
4.1	SUMMARY.....	27
4.2	CONCLUSION	27
5	VERIFICATION	29

LIST OF FIGURES

Figure 2.1: Site Location	7
Figure 2.2: Study Area Surroundings	7
Figure 2.3: WFD Waterbodies Status	9
Figure 2.4: WFD Waterbodies Risk	9
Figure 3.1: NPWS Designated Sites	13
Figure 3.2: Nearest European Sites and EPA Rivers relative to the study area	14

LIST OF TABLES

Table 2.1. Adjacent Land Uses	8
Table 2.2. WFD Summary Information	10
Table 3.1. European Sites Within 15 km of the Proposed Works	15
Table 3.2. Screening assessment of the potential effects arising from the proposed works	25

1 INTRODUCTION

1.1 PROJECT CONTRACTUAL BASIS & PARTIES INVOLVED

This report has been prepared by O'Connor Sutton Cronin & Associates Ltd. (OCSC) at the request of their Clients, Kilkenny County Council and Carlow County Council, for a pedestrian and cyclist improvement scheme on approaches and over Gore's Bridge in Goresbridge, County Kilkenny as part of a Section 38 Project.

The project will comply with all relevant new and revised design standards. Three different options have been proposed:

Option 1: Shared bridge with raised footway

Option 1 falls under the Improve (Do Something) intervention.

"Improvement/repurposing of historic infrastructure including the existing stock of structure such as viaducts, bridges..."

Option 1 proposes:

- Improvement/repurposing of the existing bridge.
- Junction improvement on approaches including traffic calming measures for active travel modes.

Option 2: Cantilever footway

Option 2 falls under the New (Do Something) intervention.

"Major new bridges, underpasses, or structures"

Option 2 proposes:

- A new cantilever walkway attached to the existing bridge as a major structure to support the active travel modes.

Option 3: Standalone footbridge

Option 3 falls under the New (Do Something) intervention.

"Major new bridges, underpasses, or structures"

Option 3 proposes:

- The introduction of a major pedestrian bridge independent of the existing Gore's Bridge that will support both pedestrian and cycling active travel modes.

In the context of this report, where the proposed project comprises three available options, the focus of this assessment will be the first option (Shared Bridge with raised footway) which is the preferred option and will be analysed further.

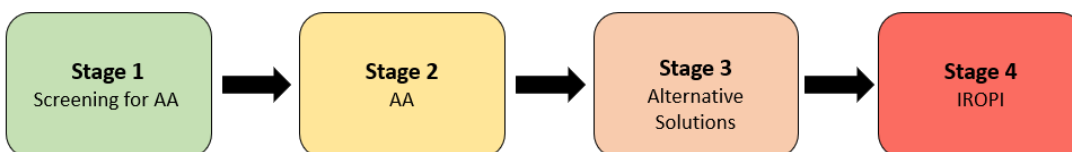
1.2 LEGISLATIVE CONTEXT

The Habitats Directive provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the “favourable conservation status” of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Habitats Directive as above and Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable of them. These two designations are collectively known as European Sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect such sites. Article 6(3) establishes the requirement for AA. These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning Development Act 2000 (as amended).

This AA screening is based on the best scientific knowledge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and ‘grey’ literature was conducted. This included a detailed review of the National Parks and Wildlife Service (NPWS) website, including mapping and available reports for relevant sites and, in particular, sensitive qualifying interests/ special conservation interests described and their conservation objectives. The EPA EnVision map viewer (EPA 2023) and available reports were also reviewed, as was the NPWS (2019) publication “The Status of Protected EU Habitats and Species in Ireland”.

The ecological desktop study completed for the AA screening of the proposed development is comprised of the following elements:

- Identification of European sites within 15 km of the proposed project boundary with identification of potential pathway links for specific sites (if relevant) greater than 15 km from the proposed project boundary;
- Review of the NPWS site synopses and conservation objectives for European sites within 15 km and for which potential pathways from the proposed site have been identified; and
- Examination of available information on protected species.



IROPI: imperative reasons of overriding public interest (IROPI)

Stage One: Screening

The process identifies the likely impacts upon a European site of a project, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

The consideration of the impact on the integrity of the European site of the project, either alone or in combination with other projects or plans, concerning the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment is made of the potential mitigation of those impacts. If adequate mitigation is proposed to ensure no significant adverse impacts on European sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage Three.

Stage Three: Assessment of Alternative Solutions

The process examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project should proceed.

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. This approach aims to avoid any impacts on European sites by identifying possible impacts early in the plan or project-making process and avoiding such impacts. Secondly, the approach involves the application of mitigation measures, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If potential impacts on European sites remain and no further practicable mitigation is possible, the approach requires the consideration of alternative solutions. If no alternative solutions are identified and the plan or project is required for imperative reasons of overriding public interest, then compensation measures are required for any remaining adverse effects.

Ecological impact assessment of potential effects on European sites is conducted following a standard source-pathway-receptor model where all three elements of this mechanism must be in place for an effect to be established. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is of any relevance or significance. The elements of this model consist of the following:

- Source(s) – e.g. pollutant run-off from proposed works;
- Pathway(s) – e.g. groundwater connecting to nearby qualifying wetland habitats; and
- Receptor(s) – qualifying aquatic habitats and species of European sites.

In relation to this report, receptors are the ecological features that are known to be utilised by the qualifying interests or special conservation interests of a European site. A source is any identifiable element of the

proposed development that is known to interact with ecological processes. The pathways are any connections or links between the source and the receptor. This report provides information on whether direct, indirect, and/or cumulative adverse effects could arise from the proposed development.

1.3 METHODOLOGY AND APPROACH

The AA Screening has been prepared taking into account the aforementioned and following legislation and guidance:

- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2009; 11 February 2010 revision.
- Commission Notice: Managing Natura 2000 sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission, 2018.
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, 2002.
- Managing Natura 2000 sites: the Provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission, 2000.
- Appropriate Assessment Screening for Development Management. Office of the Planning Regulator, March 2021.

The above documents have been used to carry out a desktop AA Screening based on the best available guidance and operating within the applicable legislation.

1.4 SCOPE OF WORKS

To meet the project objectives, the following scope of works were completed:

- Present a discussion of the proposed development and its potential effects on its receiving environment;
- Present a discussion of the current site status and key environmental influences around the site;
- Undertake and present a review of European sites in the region of the proposed development;
- Conduct and present a discussion on the screening of the identified European sites in relation to the potential effects arising from the project; and
- Provide a conclusion as to whether or not the proposed development is likely to, either alone or in combination with other plans or projects, have a significant effect on any European site.

1.5 LIMITATIONS

This Appropriate Assessment Screening Report has been prepared for the sole use of Kilkenny County Council and Carlow County Council (“the Clients”). This report will form part of a Section 38 Project. No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by OCSC.

This assessment is based on a review of available historical information, environmental records, consultations, relevant guidance information, reports from third parties and a site visit carried out by Luis lemma, BSc, MSc, Ph. D, CEcol, MCIEEM, Principal Ecologist on the 22nd of January 2024. All information received has been taken in good faith as being true and representative.

This report has been prepared in line with the best industry standards. The methodology adopted and the sources of information used by OCSC in providing its services are outlined in this Report. The assessment was undertaken and described by OCSC in January 2024 and is based on the information available during that period. The scope of this report and the services are accordingly factually limited by these circumstances.

OCSC disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report which may come or be brought to OCSC’s attention after the date of the Report. The conclusions presented in this report represent OCSC’s best professional judgement based on a review of the relevant information available at the time of writing. The opinions and conclusions presented are valid only to the extent that the information provided was accurate and complete.

2 DESCRIPTION OF THE EXISTING ENVIRONMENT

2.1 PROJECT DESCRIPTION

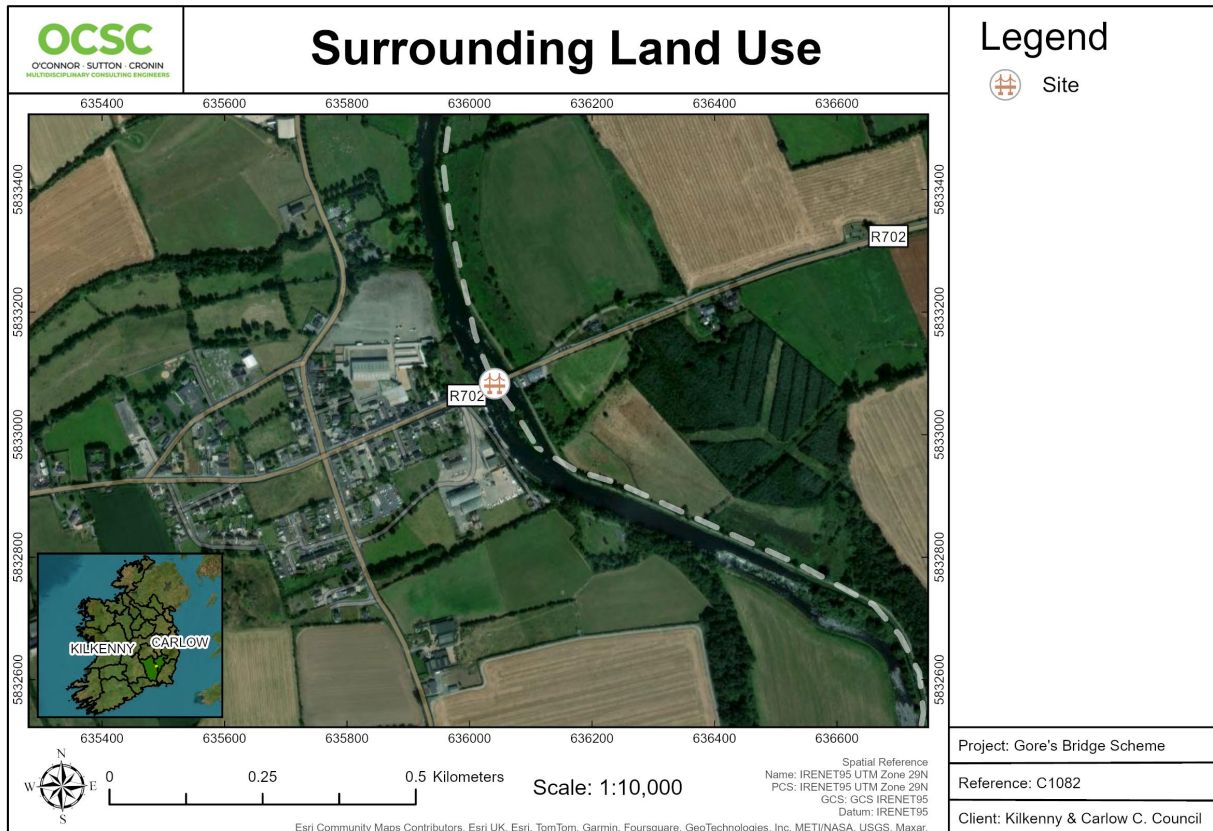
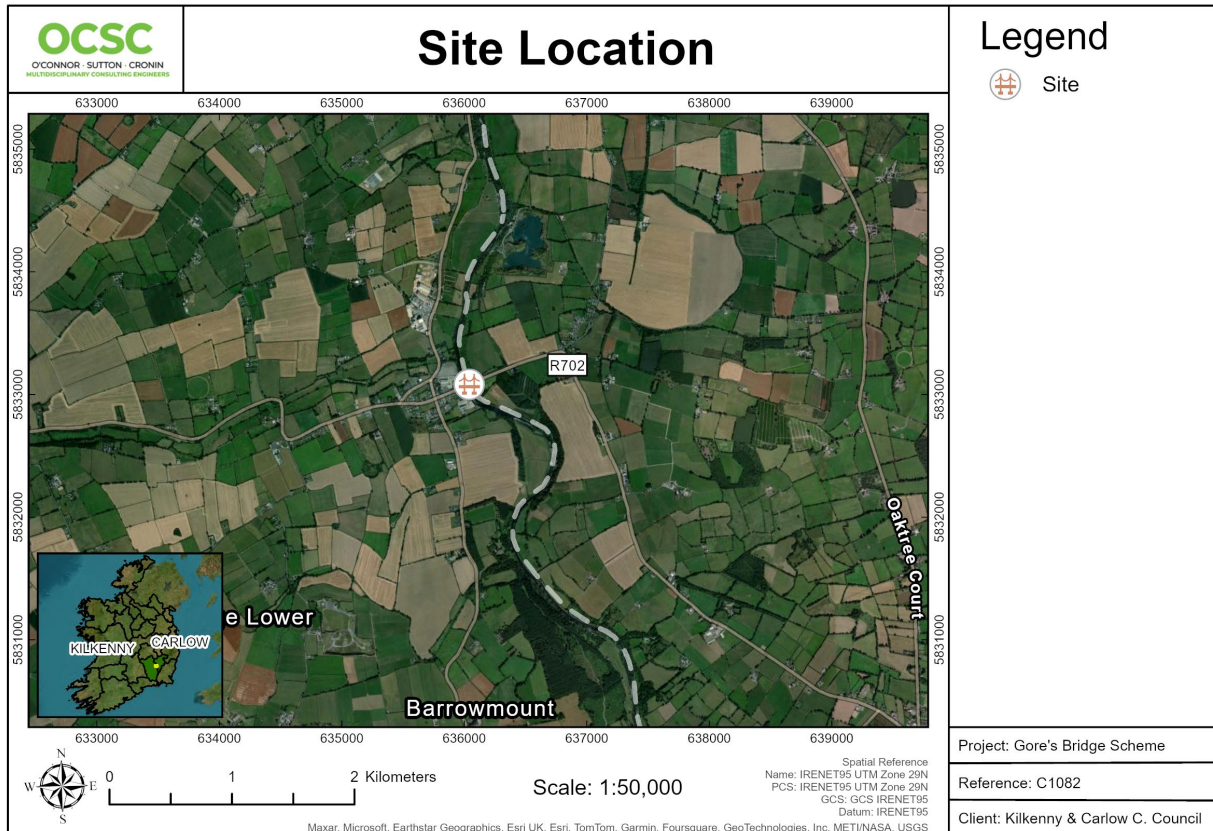
This Appropriate Assessment (AA) Screening Report has been prepared for the preferred option to improve pedestrian access to Gore's Bridge, located on the River Barrow at the border of County Kilkenny and County Carlow. This option includes the improvement/repurposing of historic infrastructure including the existing stock of structure such as viaducts, bridges and includes:

- A raised footway added to the existing road over the bridge.
- Improvement/repurposing of the existing bridge.
- Junction improvement on approaches including traffic calming measures for active travel modes.

2.2 SITE SETTING AND LOCATION

Goresbridge lies approximately 20 kilometres east of Kilkenny city. It is situated on the R702 which is a regional road linking Kilkenny to Enniscorthy. The town is named after the robust masonry river bridge Gore's Bridge, which was built in the 1760s by Ralph Gore first and last Earl of Ross, Goresbridge quickly became a market and postal town. Transport infrastructure was improved with the completion and incorporation into the Grand Canal system in 1794 of the Barrow Navigation. This provided an opportunity for trade and encouraged industrial production in the area. Alternatively referred to as Newbridge during the eighteenth and nineteenth centuries, the nine-arch river bridge formed a vital link between Counties Carlow and Kilkenny.

The site is located in Goresbridge on the River Barrow at the border of County Kilkenny and County Carlow. The site consists of roughly a 150m section of the R702 predominantly where it crosses the River Barrow at Gore's Bridge. The overall site boundary is 334m. The site location and aerial photograph of the study area are shown in Figure 2.1 and Figure 2.2, respectively.



2.3 SURROUNDING LAND USE

The area immediately surrounding the site consists of residential, agricultural, commercial, and recreational land uses. The site is bounded to the north by the River Barrow, greenspace and agricultural land; to the east by the R702, a commercial building, greenspace, and agricultural land; to the south by the River Barrow, commercial buildings, and agricultural land; and to the west by Goresbridge town, the R702, residential, commercial and agricultural buildings. See Table 2.1 for adjacent land uses and Figure 2.2 for an aerial view of surrounding land use.

Table 2.1. Adjacent Land Uses

Boundary	Land Use
North	River Barrow, greenspace and agricultural land
South	River barrow, commercial buildings and agricultural land
East	R702, commercial building, greenspace and agricultural land
West	R702, Residential, commercial, and agricultural buildings

2.4 HYDROLOGY

The River Barrow (IE_SE_14B013100) runs directly under Gore's Bridge, there are two segments of the River Barrow within the study area Barrow_210 and Barrow_220. The nearest surface water features outside the site boundary are several smaller streams and rivers which feed into the River Barrow, this includes; the Monefelim River (IE_SE_14B013100) located approximately 868m north of the site; the Hillfort Ballinkillin River (IE_SE_14H170950) located approximately 1.88km northeast of the site; and the Powerstown River (IE_SE_14B013300) located approximately 1.46km south of the site amongst others. See Figure 2.3 and Figure 2.4 for waterbody locations.

Based on the most recent water quality information (2016-2021), River Barrow_210 has an overall WFD status of 'Poor' while River Barrow_220, Powerstown River and Monefelim River all have an overall WFD status of 'Moderate'. Hillfort Ballinkillin River has an overall WFD status of 'Good' as shown in Figure 2.3.

The EPA spatial dataset indicates that River Barrow_210, River Barrow_220, Monefelim River and Powerstown River are all at risk of failing to meet their WFD objectives by 2027 while the Hillfort Ballinkillin River is under review with regard to its risk of failing to meet its WFD objectives by 2027 (EPA, 2024). See Figure 2.4. WFD summary information for the waterbody is summarised in Table 2.2.

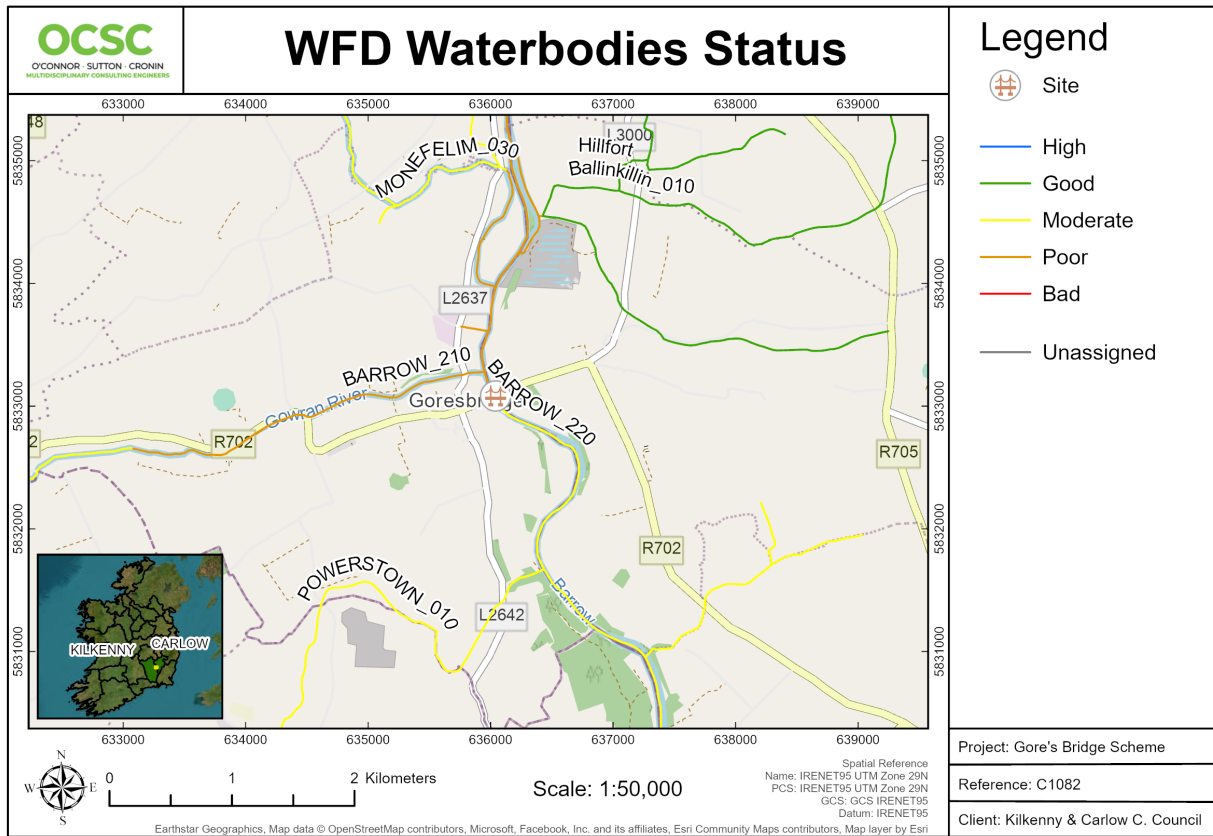


Figure 2.3: WFD Waterbodies Status.

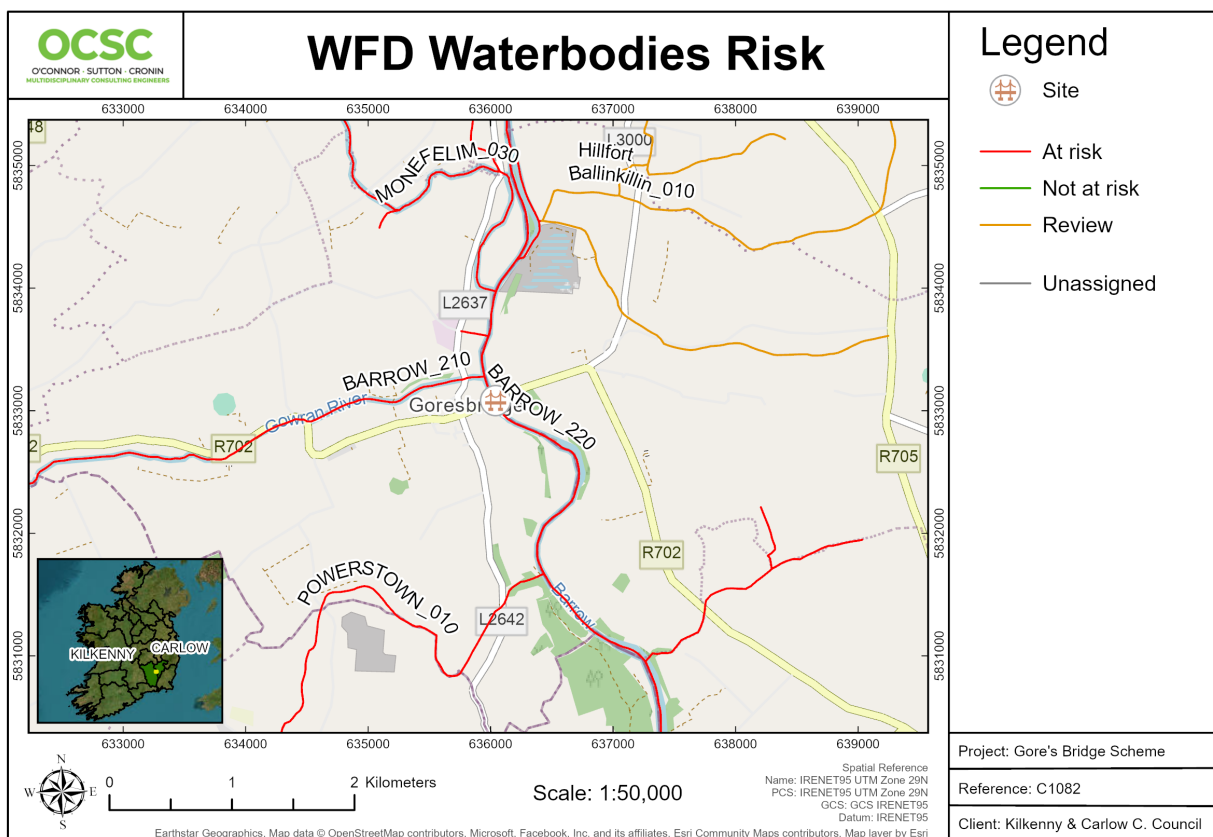


Figure 2.4: WFD Waterbodies Risk.

Table 2.2. WFD Summary Information

Name	Barrow_210	Barrow_220	Powerstown	Monefelim	Hillfort Ballinkillin
Waterbody Code	IE_SE_14B013100	IE_SE_14B013300	IE_SE_14P020400	IE_SE_14B013100	IE_SE_14H170950
Waterbody Name	River Barrow	River Barrow	Powerstown River	Monefelim River	Hillfort Ballinkillin River
Waterbody Type	River	River	River	River	River
Iteration	SE 2016-2021	SE 2016-2021	SE 2016-2021	SE 2016-2021	SE 2016-2021
Status	Poor	Moderate	Moderate	Moderate	Good
Risk	At risk	At risk	At risk	At risk	Under review

3 SCREENING FOR APPROPRIATE ASSESSMENT

3.1 SCREENING PROCESS

This stage of the process identifies any likely significant effects on European sites from a project or plan, either alone or in combination with other projects or plans. The screening phase was progressed in stages during which a series of questions were asked to determine:

- Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European Site.
- Whether the project will have a potentially significant effect on a European Site, either alone or in combination with other projects or plans, in view of the site's conservation objectives or if residual uncertainty exists regarding potential impacts.

An important element of the AA process is the identification of the “conservation objectives”, “Qualifying Interests” (QIs), and/ or “Special Conservation Interests” (SCIs) of European sites requiring assessment. QIs are the habitat features and species listed in Annexes I and II of the Habitats Directive for which each European Site has been designated and afforded protection. SCIs are wetland habitats and bird species listed within Annexes I and II of the Birds Directive. It is also vital that the threats to the ecological/environmental conditions that are required to support QIs and SCIs are considered as part of the assessment.

Site-Specific Conservation Objectives (SSCOs) have been designed to define favourable conservation status for a particular habitat or species at that site. Paragraph 4.6(3) of the European Commission interpretation document ‘Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC’ states:

“The significant effects on any European Site, in view of the site’s conservation objectives, involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site’s conservation objectives.”

Favourable conservation status of 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 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.

3.2 IDENTIFICATION OF RELEVANT EUROPEAN SITES

This section of the screening process describes the European sites located within the Zone of Influence (ZOI) of the site. The Department of the Environment (2010 revised) Guidance on AA recommends a 15 km buffer zone to be considered for Natura 2000 sites, but projects are evaluated on a case-by-case basis. A review of all sites within the ZOI has allowed a determination to be made that, in the absence of significant hydrological links, the characteristics of the proposed works will not impose effects beyond the 15 km ZOI. Natura sites located within 15km of the site are shown in, Figure 3.1.

To determine the potential for effects from the proposed works, information on the qualifying features, known vulnerabilities, and potential impacts which are likely to have significant effects on any European Site, in view of the site's conservation objectives, were reviewed. Background information on threats to individual sites and vulnerability of habitats and species that were used during this assessment included the following:

- Ireland's Article 17 Report to the European Commission "Status of EU Protected Habitats and Species in Ireland" (NPWS, 2021);
- Site Synopses (NPWS 2019a); and
- NATURA 2000 Standard Data Forms (NPWS 2019b).

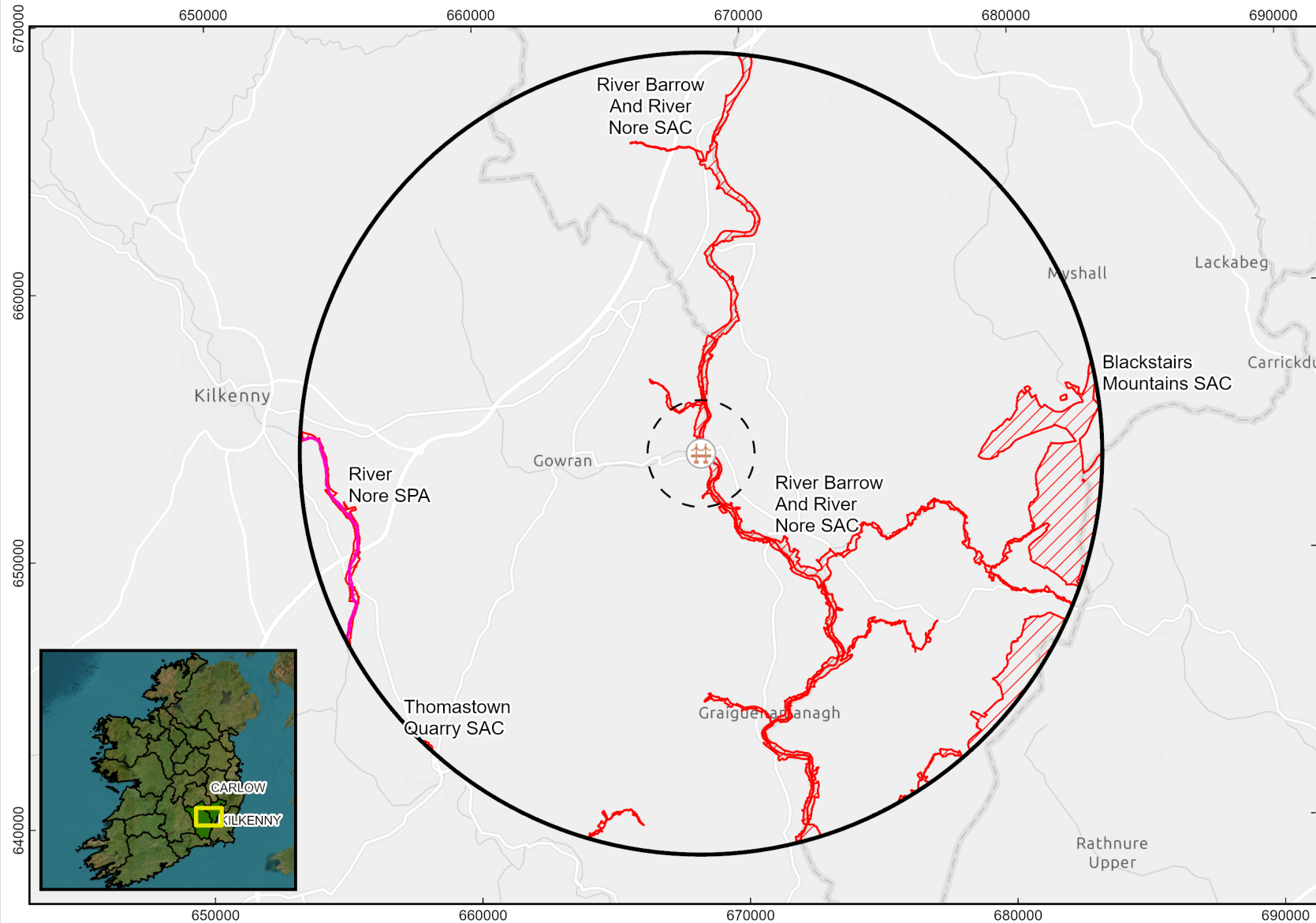
The assessment takes consideration of the SSCOs of each of the sites within the ZOI. Since the conservation objectives for the European sites focus on maintaining the favourable conservation condition of the QIs/SCIs of each site, the screening process focused on assessing the potential effects of the proposed works against the QIs/SCIs of each site. The conservation objectives for each site were consulted throughout the assessment process. QIs/SCIs for Natura sites within 15km of the site are detailed in Table 3.1.

- Conservation objectives that have been considered by this assessment are included in the following NPWS documents:
 - NPWS (2011) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. NPWS (2013) Conservation Objectives: Ballysadare Bay SAC 000622. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
 - NPWS (2019) Conservation objectives: Blackstairs Mountains SAC 000770. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
 - NPWS (2022) Conservation objectives for River Nore SPA [004233]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
 - NPWS (2019) Conservation Objectives: Thomastown Quarry SAC 002252. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS Designated Sites

Legend

-  Site
-  2km Buffer
-  15km Buffer
-  SAC
-  SPA



0 5 10 Kilometers

Scale: 1:220,000

Spatial Reference
Name: IREN95 UTM Zone 29N
PCS: IREN95 UTM Zone 29N
GCS: GCS IREN95
Datum: IREN95
Projection: Transverse Mercator

Project: Gore's Bridge Improvement Scheme

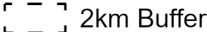


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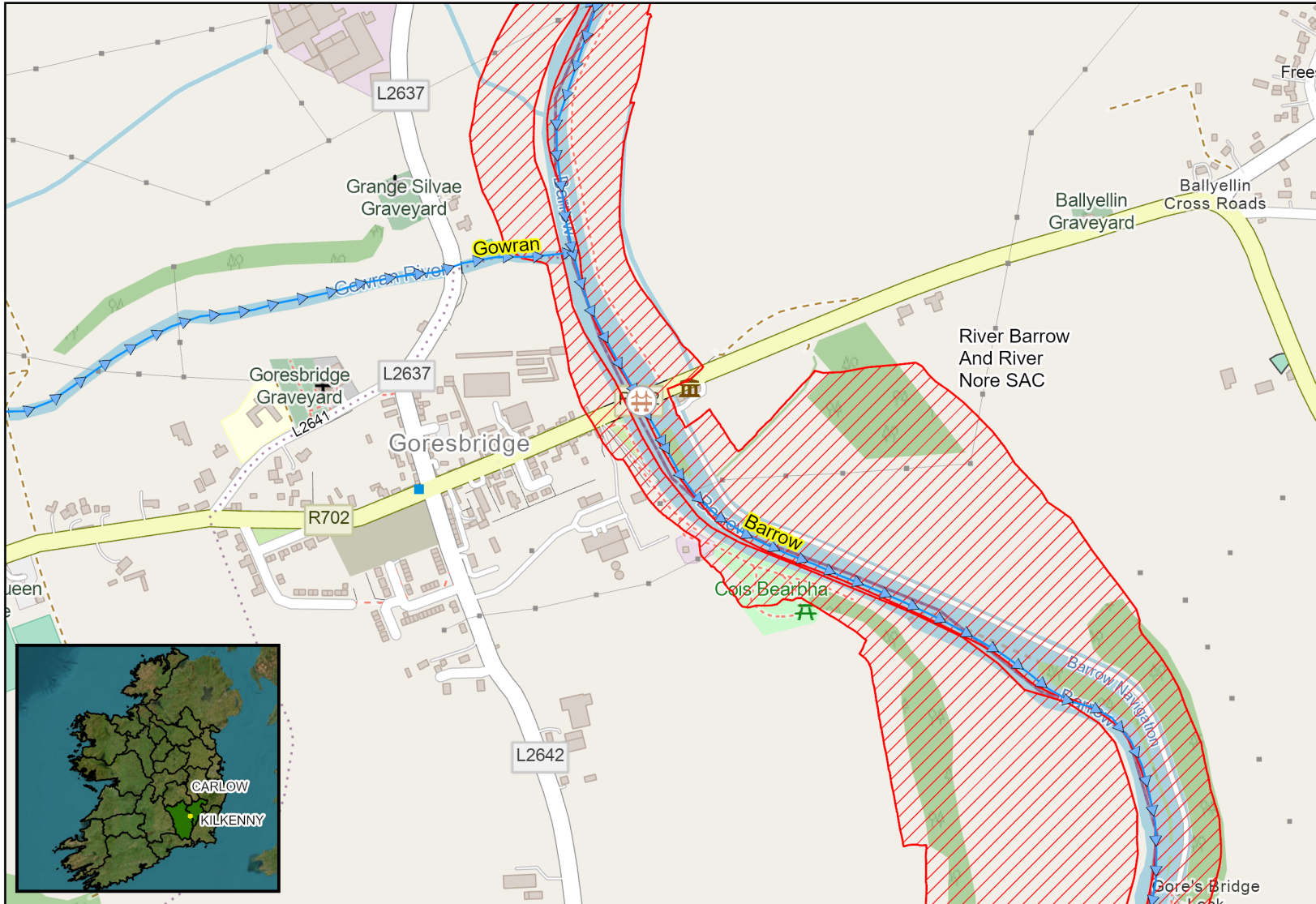
Client: Kilkenny and Carlow County Council

Figure 3.1: NPWS Designated Sites

Flow Network and NPWS Designated Sites

Legend

-  Site
-  2km Buffer
-  15km Buffer
-  SAC
-  SPA
-  Flow Network
-  River Flow Direction



0 0.25 0.5 Kilometers

Scale: 1:8,000

Spatial Reference
Name: IRENET95 UTM Zone 29N
PCS: IRENET95 UTM Zone 29N
GCS: GCS IRENET95
Datum: IRENET95
Projection: Transverse Mercator

Project: Gore's Bridge Improvement Scheme

Reference: C1082

Client: Kilkenny and Carlow County Council

Figure 3.2: Nearest European Sites and EPA Rivers relative to the study area

Table 3.1. European Sites Within 15 km of the Proposed Works

Site Code	Site Name	Distance (km)	Sensitive Receptors	Site Synopsis and Existing Threats or Sensitivities
002162	River Barrow and River Nore SAC	0m	[1130] Estuaries [1140] Tidal Mudflats and Sandflats [1170] Reefs [1310] Salicornia Mud [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows [3260] Floating River Vegetation [4030] Dry Heath [6430] Hydrophilous Tall Herb Communities [7220] Petrifying Springs [91A0] Old Oak Woodlands [91E0] Alluvial Forests [1016] Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>) [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) [1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>) [1095] Sea Lamprey (<i>Petromyzon marinus</i>) [1096] Brook Lamprey (<i>Lampetra planeri</i>) [1099] River Lamprey (<i>Lampetra fluviatilis</i>) [1103] Twaite Shad (<i>Alosa fallax</i>) [1106] Atlantic Salmon (<i>Salmo salar</i>) [1355] Otter (<i>Lutra lutra</i>) [1421] Killarney Fern (<i>Trichomanes speciosum</i>) [1990] Nore Freshwater Pearl Mussel (<i>Margaritifera durrovensis</i>)	<p>This site consists of the freshwater stretches of the Barrow and Nore River catchments as far upstream as the Slieve Bloom Mountains, and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford.</p> <p>Good examples of alluvial forest (a priority habitat on Annex I of the E.U. Habitats Directive) are seen at Rathsnagadan, Murphy's of the River, in Abbeyleix estate and along other shorter stretches of both the tidal and freshwater elements of the site. A good example of petrifying springs with tufa formations occurs at Dysart Wood along the Nore. This is a rare habitat in Ireland, and one listed with priority status on Annex I of the E.U. Habitats Directive. A rich bryophyte flora is typical of the habitat and two diagnostic species, <i>Palustriella commutata</i> and <i>Eucladium verticillatum</i>, have been recorded.</p> <p>The site is very important for the presence of a number of E.U. Habitats Directive Annex II animal species including Freshwater Pearl Mussel (both <i>Margaritifera margaritifera</i> and <i>M. m. durrovensis</i>), White-clawed Crayfish, Salmon, Twaite Shad, three lamprey species – Sea Lamprey, Brook Lamprey and River Lamprey, the tiny whorl snail <i>Vertigo moulinsiana</i> and Otter. This is the only site in the world for the hard water form of the Freshwater Pearl Mussel, <i>M. m. durrovensis</i>, and one of only a handful of spawning grounds in the country for Twaite Shad.</p> <p>The site is of ornithological importance for a number of E.U. Birds Directive Annex I species, including Greenland White-fronted Goose, Whooper Swan, Bewick's Swan, Bar-tailed Godwit, Peregrine and Kingfisher. Nationally important numbers of Golden Plover and Bar-tailed Godwit are found during the winter. Wintering flocks of migratory birds are seen in Shanahoe Marsh and the Curragh and Goul Marsh, both in Co. Laois and also along the Barrow Estuary in Waterford Harbour. There is also an extensive autumnal roosting site in the reedbeds of the Barrow Estuary used by Swallows before they leave the country. The old oak woodland at Abbeyleix has a typical bird fauna including Jay, Long-eared Owl and Raven. The reedbed at Woodstown supports populations of typical waterbirds including Mallard, Snipe, Sedge Warbler and Water Rail.</p> <p>Overall, the site is of considerable conservation significance for the occurrence of good examples of habitats and populations of plant and animal species that are listed in Annexes I and II of the E.U. Habitats Directive. Furthermore, it is of high conservation value for the populations of bird species that use it. The occurrence of several Red Data Book plant species including three rare plants in the salt meadows and the population of the hard water form of the Freshwater Pearl Mussel, which is limited to a 10 km stretch of the Nore, add further interest to this site.</p>
000770	Blackstairs Mountains SAC	10.4km E	[4010] Wet Heath [4030] Dry Heath	<p>The Blackstairs Mountains are located along the border of the Counties Wexford and Carlow, forming a mountain chain that runs in a northeast/southwest direction for approximately 22 km and includes six peaks over 520 m. The Blackstairs Mountains SAC is the only example of moorland above 300 m in Counties Wexford and Carlow. It includes good examples of dry heath, a habitat listed on Annex I of the E.U. Habitats</p>

				<p>Directive. The plant and animal communities are typical of upland habitats, and the growth of Heather is particularly profuse, rivalling some of the larger areas of Heather cover in Co. Wicklow. The presence of rare and scarce species adds significantly to the conservation value of the site.</p> <p>The site is important for extensive areas of dry heath. The higher, steeper slopes are covered with a dense, tall carpet dominated by Heather (<i>Calluna vulgaris</i>) and Bilberry (<i>Vaccinium myrtillus</i>), with small amounts of Crowberry (<i>Empetrum nigrum</i>), Bell Heather (<i>Erica cinerea</i>) and Cross-leaved Heath (<i>E. tetralix</i>). Occasionally Common Bent (<i>Agrostis capillaris</i>) and Mat-grass (<i>Nardus stricta</i>) are also found. Abundant moss cover is present, particularly in those areas which have escaped burning – species include <i>Racomitrium lanuginosum</i>, <i>Hypnum cupressiforme</i>, <i>Polytrichum commune</i>, <i>Hylocomnium splendens</i> and <i>Rhytidiadelphus squarrosus</i>. Stiff Sedge (<i>Carex bigelowii</i>) occurs on the stony ground on the west side of the range. Lower down the slopes the heath is dominated by Gorse (<i>Ulex europaeus</i>), with some of the species listed above, along with Heath Bedstraw (<i>Galium saxatile</i>) and Tormentil (<i>Potentilla erecta</i>). Bracken (<i>Pteridium aquilinum</i>) is also abundant on the lower slopes, particularly on the western flanks.</p> <p>Wet heath occurs in mosaic with dry heath towards the base of some of the steeper slopes and is also found outside the western edge of the commonage. Typical species include Purple Moor-grass (<i>Molinia caerulea</i>), bog mosses such as <i>Sphagnum capillifolium</i> and <i>S. palustre</i>, and sometimes Bog Asphodel (<i>Narthecium ossifragum</i>).</p>
004233	River Nore SPA	13.1km W	[A229] Kingfisher	<p>The River Nore SPA is a long, linear site that includes the following river sections: the River Nore from the bridge at Townparks, (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Inistioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co. Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island, Co. Kilkenny. The site includes the river channel and marginal vegetation.</p> <p>The River Nore SPA is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive. A survey in 2010 recorded 22 pairs of Kingfisher (based on 16 probable and 6 possible territories) within the SPA. Other species which occur within the site include Mute Swan (35), Mallard (267), Cormorant (14), Grey Heron (45), Moorhen (14), Snipe (17) and Sand Martin (1,029).</p>
002252	Thomastown Quarry SAC	14.8km SW	[7220] Petrifying Springs	<p>Thomastown Quarry is situated along the R700 road about 1 km north of Thomastown, Co. Kilkenny. It comprises a disused limestone quarry in which an excellent diversity of calcareous habitat types has developed. Despite its small size, this site has an excellent diversity of calcareous habitats, including petrifying springs, a habitat with priority status in Annex I of the E.U. Habitats Directive. The presence of rare and uncommon species of plants and animals add further to its interest and importance. The ponds support populations of the Common Frog and Common Newt, both legally protected species. A limited survey of the aquatic invertebrates recorded the presence of two rare species for</p>

				<p>Ireland, the beetle (Order Coleoptera) <i>Haliphus variegatus</i> and the Corixid bug <i>Hesperocorixa moesta</i>.</p> <p>Seepage lines or springs are a feature of the site and of particular importance is the presence of petrifying springs with tufa formations. This rare habitat is rich in bryophytes, most notably <i>Palustriella commutata</i> var. <i>commutata</i> and <i>Cratoneuron filicinum</i>. Other species include <i>Calliergon giganteum</i>, <i>Campylium stellatum</i>, <i>Bryum pseudotriquetrum</i>, <i>Drepanocladus revolvens</i>, <i>Hylocomum splendens</i> and <i>Aneura pinguis</i>. Alkaline fen vegetation has developed over some of the seepage areas and also around the various ponds that occur on the quarry floor. The fen vegetation is quite species rich and includes Jointed Rush (<i>Juncus articulatus</i>), Toad Rush (<i>J. bufonius</i>), Common Spike-rush (<i>Eleocharis palustris</i>), various sedges (e.g. <i>Carex panicea</i> and <i>C. lepidocarpa</i>), Marsh Lousewort (<i>Pedicularis palustris</i>), Brooklime (<i>Veronica beccabunga</i>), Early Marsh-orchid (<i>Dactylorhiza incarnata</i>) and Common Fleabane (<i>Pulicaria dysenterica</i>). Bryophytes are frequent in the fen habitat. Wetland plants such as Water-plantain (<i>Alisma plantago-aquatica</i>), Bulrush (<i>Typha latifolia</i>), Water Horsetail (<i>Equisetum fluviatile</i>) and Common Cottongrass (<i>Eriophorum angustifolium</i>) occur at the margins of the ponds.</p>
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3.3 ASSESSMENT CRITERIA

3.3.1 EXCLUSION FROM APPROPRIATE ASSESSMENT

As set out in the provisions of the Habitats Directive, plans or projects that are directly connected with or necessary to the management of a European Site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site(s). The relationship should be shown to be direct and not a by-product of the plan, even if this might result in positive or beneficial effects for a site(s).

In this case, however, the proposed bridge improvement is neither necessary for nor directly connected with the management of a European Site. As such, the proposed development cannot be excluded from AA. It is considered that the operational phase elements of the proposed project will not introduce effects over and above those already existing as the site use is not predicted to change following completion of the works.

3.3.2 ELEMENTS OF WORK WITH POTENTIAL TO GIVE RISE TO EFFECTS

The construction phase of the proposed works (Option 1 - Shared Bridge with a Raised Footpath: A raised pedestrian footpath and adoption of the one-way signalised traffic arrangement) has the potential to introduce effects such as disturbance due to noise and vibrations, surface water run-off, and sedimentation. These effects are examined in detail in relation to the sensitive receptors of each of the European sites identified with regard to the conservation objectives and the potential pathways for effects. Note, as per Figures 3.1 & 3.2 and Table 3.1 the bridge overlies the River Barrow and River Nore SAC.

3.3.3 IDENTIFICATION OF POTENTIAL EFFECTS AND SCREENING OF SITES

This section documents the final stage of the screening process. It uses the information collected on the sensitivity of each European Site and describes any impact to have likely significant effects on any European Site, in view of the site's conservation objectives, resulting from the proposed works. This assessment assumes the absence of any controls, conditions, or mitigation measures. In determining the potential for effects, a number of factors have been considered including the sensitivity and reported threats to the European Site and the individual elements of the proposed works and the potential effect they may cause to the site.

Sites are screened out based on one or a combination of the following criteria:

- Where it can be shown that there are no significant pathways such as hydrological links between activities of the proposed works and the site to be screened;
- Where the site is located at such a distance from proposed works that effects are not foreseen; and/ or
- Where it is known that threats or vulnerabilities at a site cannot be linked to potential impacts that may arise from the proposed works.

3.4 ASSESSMENT OF SIGNIFICANCE OF POTENTIAL EFFECTS

Assessment is the process of evaluating the importance or significance of project/plan effects (whether negative or positive). The following parameters are described when characterising impacts (following guidance from the Chartered Institute of Ecology and Environmental Management, the Environmental Protection Agency, and Transport Infrastructure Ireland/ National Roads Authority):

Direct and Indirect Impacts – An impact can be caused either as a direct or as an indirect consequence of proposed development.

Magnitude - Magnitude refers to size, amount, intensity, and volume. It should be quantified if possible and expressed in absolute or relative terms (e.g., the amount of habitat lost, percentage change to habitat area, percentage decline in a species population). Magnitude measures the size of an impact which is described as high, medium, low, very low, or negligible.

Extent - The extent is the spatial or geographical area over which the impact/effect may occur under a suitably representative range of conditions (e.g. noise transmission underwater).

Duration - The time for which the effect is expected to last prior to recovery or replacement of the resource or feature.

- Temporary: the effects would take up to 1 year to be mitigated;
- Short Term: the effects would take 1-7 years to be mitigated;
- Medium Term: the effects would take 7-15 years to be mitigated;
- Long Term: the effects would take 15-60 years to be mitigated; and
- Permanent: the effects would take 60+ years to be mitigated.

Likelihood – The probability of an impact/effect occurring taking into account all available information.

- Certain/Near Certain: >95% chance of occurring as predicted;
- Probable: 50-95% chance as occurring as predicted;
- Unlikely: 5-50% chance as occurring as predicted; and
- Extremely Unlikely: <5% chance as occurring as predicted.

The document 'Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission Environment DG, 2001' outlines the types of effects that may impact European sites. These include effects from the following activities:

- Land take
- Resource requirements (drinking water abstraction, etc.)
- Emissions (disposal to land, water, or air)
- Excavation requirements
- Transportation requirements
- Duration of construction, operation, decommissioning

In addition, the guidance outlines the following likely changes that may occur at a designated site which may result in significant effects on any European Site and its function, in view of its conservation objectives:

- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value (water quality, etc.)
- Climate change

The elements detailed above were considered with reference to each of the European sites identified within a 15km radius of the site (Figure 3.1).

3.4.1 LAND TAKE/HABITAT LOSS

Although the proposed works overlie the River Barrow and River Nore SAC, no instream works are predicted and the construction phase will be confined to the surface of the bridge, therefore, there is no anticipated impact on the land take or habitat loss posed to European sites from the proposed works.

3.4.2 RESOURCE REQUIREMENTS

Due to the nature of the proposed works, there will be no significant natural resource requirements over and above those required for typical refurbishment of roads and bridges.

3.4.3 DURATION OF WORKS

The construction phase of the proposed works is anticipated to be short-term. Therefore, given the relatively small scale of these works, the duration of the works is extremely unlikely to impact nearby European sites.

3.4.4 EMISSIONS (DISPOSAL TO LAND, WATER OR AIR)

Construction Phase:

Works undertaken during the construction phase may create potential localised impacts including noise and dust as well as increased siltation, turbidity, and pollution due to accidental spillages of oils or fuels from machinery and runoff during construction works. The River Barrow (IE_SE_14B013100) runs directly under Gore's Bridge and is located within the site boundary. The river is part of the River Barrow and River Nore SAC.

Although, the proposed works and the SAC overlap, the nature and scale of the works (raising and widening the footpath, pedestrian rail being installed and carriageway being reduced) and the fact that there will be no instream works, no impacts are predicted to the waterbody and European Site during construction phase.

Another European Site within the ZOI is hydrologically connected to the proposed site (Blackstairs Mountains SAC), located 12.7km downstream. However, due to the distance and the lack of instream works, the impact on these European sites is determined to be extremely unlikely and not significant.

Operational Phase:

Potential surface water pollution via runoff, including pollution by silt or hydrocarbons, will be managed in accordance with best practices. The risk of surface water pollution during the construction stage is considered unlikely and not significant due to the nature of the works (existing feature) and its small scale.

3.4.5 EXCAVATION REQUIREMENTS/EROSION/SEDIMENTATION

The proposed development does not require significant excavation works. Therefore, given the scale of the development and distance to European sites, the impacts due to erosion and/ or sedimentation arising from these works are considered to be temporary, extremely unlikely, and not significant.

3.4.6 TRANSPORTATION REQUIREMENTS

There will be an increase in construction traffic during the construction phase. However, these effects are considered to be not significant with regard to European sites due to the relatively small scale and the limited traffic contribution during the operational phase.

3.4.7 DURATION OF CONSTRUCTION, OPERATION, DECOMMISSIONING

The construction phase of the proposed project is short-term and will have no significant effects on European sites given the small scale and duration of the works. The bridge improvement will be a permanent feature with no decommissioning phase and is predicted to have no significant effects on European sites due to the nature of its use.

3.4.8 HABITAT REDUCTION

The nearest European site, River Barrow and River Nore SAC, is located directly underneath the proposed works. No instream works are predicted, and the duration and size of the project are anticipated to be short-term and small scale, therefore, there will be no reduction of the habitat of European sites resulting from the proposed development.

3.4.9 SPECIES DISTURBANCE

The nearest European site is the River Barrow and River Nore SAC which is located directly underneath the proposed development. As such, disturbance from noise, vibrations, lighting, etc. is a valid link. Considering the small scale nature of the works, being short-term and that no instream works are predicted, although there are pathways for disturbance effects identified due to the connection between the proposed development and this European site, this disturbance is considered unlikely and of short-term.

3.4.10 HABITAT OR SPECIES FRAGMENTATION

Given the scale and duration of the construction phase and the long-term use of the proposed project, the project is considered to have no potential effects on any European site with regard to habitat or species fragmentation.

3.4.11 CHANGES IN KEY INDICATORS OF CONSERVATION VALUE

The River Barrow and River Nore SAC is the nearest European site and is located directly underneath the proposed project. Given the scale and duration of the proposed works and the long-term use of the proposed project, impacts on key indicators of conservation value at this and other European sites arising from the proposed project is expected to be extremely unlikely and not significant.

3.4.12 CLIMATE CHANGE

Due to the nature and scale of the proposed work, the effects of the proposed development on climate and Ireland's obligations under the Kyoto Protocol are not anticipated to be significant.

3.4.13 COMBINATION EFFECTS WITH OTHER PROJECTS

Grants of planning in the vicinity of the site were reviewed to identify works of a significant scale which may produce in-combination effects with the proposed works. The following planning grants of larger than a single domestic scale were identified:

21736 (Kilkenny County Council) –Decision: Conditional

- For (1) Planning Permission for the demolition of the ancillary buildings at the rear of the existing derelict single-storey shop and the construction of two-storey residential accommodation to the rear of it with a new frontage, a new residential entrance and balconies at first floor level (2) Change of Use Planning Permission for the existing derelict single storey shop from Retail to Residential, with refurbishment of this building to include new roofing and altered fenestration to the street, all with associated site and landscape works.

20499 (Kilkenny County Council) - Decision: Conditional

- To 1) demolish existing shed for access (connected to protected structure NIAH Ref. No. 12311007 not of this Planning Application), and 2) construction of 10 no. dwellings to include 4 no. 4-bedroom and 6 no. 3-bedroom with connection to all existing services and all associated site works.

19528 (Kilkenny County Council) - Decision: Conditional

- To carry out construction works including: 1. Construction of a new extension to the existing out loading bins/ silos building with associated enclosure. 2. Construction of a new high bay production building. 3. Modification of existing production area to include raising of existing roof to a height of circa 25.63m. 4. All internal and elevational modifications. 5. All associated site development works

19259 (Carlow County Council) - Decision: Conditional

- Retention permission is sought for replacement of roof structure and re-slatting with salvaged and original slate, to the Old Canal Store, a Protected Structure CW124 (adjoining Goresbridge a protected structure CW6) and for the retention of an unauthorised sliding gate to the rear vehicular access. Permission is sought for a change of use of the existing ground floor to original 3 storey section (including raised area to north for Canal Museum and Cafe). This use is the first phase of a later development of upper floors which for now are being made structurally stable. Demolition of existing single lean-to structure and toilet block and its replacement with new flat roofed single storey structure for use as kitchen and toilets to new Canal Museum Cafe, area 61sqm. Refurbishment of existing industrial shed structures to allow for covered parking bike storage (and occasional community event). The installation of a fire escape access and stair from rear barrel vault shed through existing blocked opening onto Ballyellin Road. Re-fenestration of all upper floor windows and first floor structural repair of building shell and fire rating, however the use of these floors is not being considered in this phase, and there will be no public access. Glass walled viewing deck and cafe (57sqm) to canal side. Provision of a new wastewater treatment system and tertiary sand filter. The provision of car spaces within the shed structure. The repair of first and second floor rooms to residential section including reconstruction of brick partitions and internal stairs.

Other granted planning permissions in the vicinity of the site pertain primarily to small scale constructions, change of use, or retention of works. While the planning grants listed above relate to commercial, industrial, or multi-unit residential works, the majority are of small to medium scale and, as such, are unlikely to produce significant in-combination effects with the proposed development.

Table 3.2. Screening assessment of the potential effects arising from the proposed works

Site Code	Site Name	Distance (km)	Sensitive Receptors	Characterisation of Potential Effects	Potential Significant Effects	Potential In-Combination Effects
002162	River Barrow and River Nore SAC	Within	[1130] Estuaries [1140] Tidal Mudflats and Sandflats [1170] Reefs [1310] Salicornia Mud [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows [3260] Floating River Vegetation [4030] Dry Heath [6430] Hydrophilous Tall Herb Communities [7220] Petrifying Springs [91A0] Old Oak Woodlands [91E0] Alluvial Forests [1016] Desmoulin's Whorl Snail (Vertigo moulinsiana) [1029] Freshwater Pearl Mussel (Margaritifera margaritifera) [1092] White-clawed Crayfish (Austropotamobius pallipes) [1095] Sea Lamprey (Petromyzon marinus) [1096] Brook Lamprey (Lampetra planeri) [1099] River Lamprey (Lampetra fluviatilis) [1103] Twaite Shad (Alosa fallax) [1106] Atlantic Salmon (Salmo salar) [1355] Otter (Lutra lutra) [1421] Killarney Fern (Trichomanes speciosum) [1990] Nore Freshwater Pearl Mussel (Margaritifera durrovensis)	Threats to the site include: A02.01 (Agricultural intensification); J02.12.02 (Dykes and flooding defence in inland water systems); K01.01 (Erosion); J02.05.02 (Modifying structures of inland water courses); H01 (Pollution to surface waters - limnic, terrestrial, marine & brackish); M01 (Changes in abiotic conditions); J02.02.01 (Dredging/ removal of limnic sediments); F02 (Fishing and harvesting aquatic resources); B02 (Forest and Plantation management & use); B07 (Forestry activities not referred to above); J02 (Human induced changes in hydraulic conditions); A04.01.01 (Intensive cattle grazing); I01 (Invasive non-native species); C01.03 (Peat extraction); J03.01.01 (Reduction in migration/ migration barriers); B05 (Use of fertilizers - forestry); J02.06 (Water abstractions from surface waters); E02 (Industrial or commercial areas); F01.01 (Intensive fish farming, intensification); F02.03 (Leisure fishing); F02.01.02 (Netting); D03.01 (Port areas); A10.01 (Removal of hedges and copses or scrub); C01.01.01 (Sand and gravel quarries). Although, the proposed works and the SAC overlap, the nature and scale of the works (raising and widening the footpath, pedestrian rail being installed and carriageway being reduced) and the fact that there will be no instream works, impacts to the waterbody and European Site during construction phase are deemed to be short-term and unlikely.	Unlikely	Unlikely
000770	Blackstairs Mountains SAC	10.4km E	[4010] Wet Heath [4030] Dry Heath	Threats to the site include: J01.01 (Burning down); B02 (Forest and Plantation management & use); A04.01.02 (Intensive sheep grazing); G01.03.02 (Off-road motorized driving); E03 (Discharges); K01.01 (Erosion); K02.01 (Species composition change - succession); G01.02 (Walking, horse-riding and non-motorised vehicles). Although there is a hydrological link between the site and the protected area the SAC is located approximately 12.7km downstream from the proposed site. Given the scale and nature of the works, construction	Unlikely	Unlikely

				phase effects will be localised and unlikely to cause significant impact on the SAC.		
004233	River Nore SPA	13.1km W	[A229] Kingfisher	<p>Threats to the site include: J02.01 (Landfill, land reclamation and drying out, general); and D03.01 (Port areas).</p> <p>There is no spatial overlap or hydrological link between the site and the protected area. Given the scale and nature of the works, construction phase effects will be localised and unlikely to cause significant impact on the SAC.</p>	Unlikely	Unlikely
002252	Thomastown Quarry SAC	14.8km SW	[7220] Petrifying Springs	<p>Threats to the site include: A04.03 (Abandonment of pastoral systems, lack of grazing); K03.01 (Competition); and E01 (Urbanised areas, human habitation).</p> <p>There is no spatial overlap or hydrological link between the site and the protected area. Given the scale and nature of the works, construction phase effects will be localised and unlikely to cause significant impact on the SAC.</p>	Unlikely	Unlikely

4 SUMMARY AND CONCLUSION

4.1 SUMMARY

The Habitats Directive provides legal protection for habitats and species of European importance and establishes the requirement for an AA. This AA screening is based on best scientific knowledge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and 'grey' literature was conducted.

This AA pertains to the planned enhancement for pedestrians and cyclists on the approaches and across Gore's Bridge in Goresbridge, County Kilkenny. The evaluation in this report exclusively considers Option 1 - Shared Bridge with raised footway. Gore's Bridge is characterized as a 9-span hump-back masonry arch bridge.

The River Barrow and River Nore SAC is located directly underneath the bridge. However, given the scale of the development and the fact that no instream works are needed, the effects arising from these works will be negligible. There is another hydrologically connected European site to the proposed development (Blackstairs Mountains SAC), located 12.7km downstream. However, given the scale of the development and distance to this European site, the effects arising from these works will be negligible.

No changes are predicted to occur at any designated sites which may result in effects on the conservation objectives of those sites with regard to the following:

- Reduction in habitat area
- Habitat or species fragmentation
- Climate change
- Disturbance to key species
- Reduction in species density
- Changes in key indicators of conservation value

4.2 CONCLUSION

This stage 1 screening for AA of the proposed improvement of the Gore's Bridge, has considered potential effects which may arise during the construction and operational phases as a result of the implementation of the project if option 1 (Shared Bridge with raised footway) is chosen by the clients.

The nearest European sites or qualifying habitat features is located directly underneath the proposed development site and there is one hydrologically connected European site, Blackstairs Mountains SAC (12.7km downstream). Therefore, given the nature of the development, its scale, and the localised and temporary nature of the construction effects identified, the project is not foreseen to give rise to any significant

adverse effects on any designated European sites, alone or in combination with other plans or projects. This evaluation is made in view of the conservation objectives of the habitats or species for which these sites have been designated. Consequently, a Stage Two AA is not required for the project.

5 VERIFICATION

This report was compiled by Luis Iemma, BSc, MSc, PhD, CEcol, MCIEEM, Principal Ecologist; reviewed and approved by Eleanor Burke, BSc, MSc, DAS, MEnvSc, CSci, OCSC Director (Environmental).



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