

# SCREENING STATEMENT

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IN SUPPORT OF THE  
**APPROPRIATE ASSESSMENT**

FOR

**PART A (PHASE 1) OF PROPOSED TRIOGUE  
BLUEWAY (CYCLEWAY SCHEME)**

AT

**PORTLAOISE, COUNTY LAOIS**

**for: Laois County Council**  
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# Section 1 Introduction

## 1.1 Background

This Screening Statement has been prepared for Laois County Council (LCC) in support of the Appropriate Assessment (AA) for Phase 1 of a proposed cycle way scheme known as the Triogue Blueway (hereafter referred to as "the scheme" or "proposed development"). Laois County Council has prepared a Walking and Cycling Strategy with the aim of providing sustainable travel patterns within Portlaoise town to achieve objectives set out in the low carbon town project. The scheme extends from the Ballyfin Road as far as the South Circular Ring Road navigating through urban environments into public parks and woodland areas for a total length of approximately 2.6 km (refer to Appendix 1; Map of Triogue Blueway). Due to the diverse range of the receiving environment, the scheme will be split into 3 phases with the level of ecological investigations applied being appropriate to the surrounding environments. This Screening Statement has been prepared for Phase 1 of the scheme which consists of works towards the far eastern section of the scheme which starts at the South Circular Road and ends at the "Peoples Public Park (Páirc an Phobail)" (approximately 360 m in length) where the proposed cycle track links to an existing footway.

This report specifically assesses the potential for Phase 1 of the scheme to impact on European sites (formerly known as "Natura 2000" sites). The European Communities Habitats Directive 92/43/EEC ("the Habitats Directive") provides, in Article 6(3), the legal basis for Appropriate Assessment (AA) at European level.

## 1.2 Legislative Context for Appropriate Assessment

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 (Council 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. SACs and SPAs are collectively known as European sites. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of a European Union (EU)-wide network of sites known as the Natura 2000 network (hereafter referred to as "European sites").

AA is required by the Habitats Directive, as transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning and Development Act (as amended). AA is an assessment of the potential for significant or adverse effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European site.

### 1.2.1 European Sites

Special Areas of Conservation (SACs) are sites designated under European Communities Directive 92/43/EEC (known as the Habitats Directive). This requires the conservation of important, rare or threatened habitats and species (excludes birds, refer to Special Protection Areas (SPAs)) across Europe.

Special Protection Areas (SPAs) are sites designated under the European Communities Directive 79/409/EEC, (known as the Birds Directive), to conserve the habitats of certain migratory or rare birds.

A European site refers to any of the following:

- candidate site of community importance;
- site of community importance;
- candidate SAC;
- SAC;

- candidate SPA; or
- SPA

The process of designating cSACs (candidate Special Areas of Conservation) as SACs is ongoing in Ireland. The term SAC is used throughout this report for both SACs and cSACs, given they are subject to equal protection. The designation features of SACs are referred to as Qualifying Interests (QIs), and comprise both species (excluding birds), and habitats. The designation features of SPAs are referred to as Special Conservation Interests (SCIs), and comprise bird species, as well as wetland bird habitats. The designation features of European sites are identified in the Statutory Instruments (SIs) for European sites where such sites have completed the designation process. In all cases, designation features are also identified in Conservation Objectives published by the NPWS. Any Conservation Objectives referred to in this AA Screening report are referenced to identify the date of publication and version number.

Conservation Objectives (in relation to a European site), refers to the maintenance and restoration of the habitat and species (including birds) in respect of which the site has been identified as a European site at "favourable conservation status" or their restoration to such favourable status, and shall include such particular objectives as the Minister may from time to time establish for those purposes under Regulation 26.

### 1.2.2 Screening for Appropriate Assessment

Screening is the process of determining whether an AA is required for a plan or project. In order to ensure the protection of European sites in the context of land use planning and development, Article 6(3) of the Habitats Directive requires that:

*"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives."*

The Court of Justice of the European Union (CJEU)<sup>1</sup> has interpreted this requirement as:

*'Any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects'.*

In accordance with the Precautionary Principle, the ECJ interpreted the term "likely" as meaning that as long as it cannot be conclusively demonstrated that a given effect will not occur, that effect is considered "likely" to occur. A likely effect considered to be "significant" only if it interrupts or causes delays in progress towards achieving the Conservation Objectives of the relevant European site(s).

In the Republic of Ireland, this requirement is transposed into national law by the European Communities (Birds and Natural Habitats) Regulations 2011; and Part XAB of the Planning and Development Act 2000 (as amended) and associated planning regulations (2001-2019), and the process is termed "Appropriate Assessment". Stage 1 of the process, i.e. determining whether or not a plan or project meets the above criteria for requiring a full AA, is referred to as "AA Screening".

Information contained within the AA Screening is underpinned by best scientific knowledge, objective information and takes cognisance of CJEU rulings<sup>2</sup> for AA.

<sup>1</sup> Landelijke Vereniging tot Behoud van de Waddenzee, Nederlandse vereniging tot Bescherming van Vogels v. Staatssecretaris van Landbouw, Natuurbeheer en Visserij (Waddenzee) [2004] C-127/02 ECR I-7405.

<sup>2</sup> Kelly v An Bord Pleanála [2014] IEHC 400

Peter Sweetman and others v An Bord Pleanála (C-258/11)

People Over Wind & Sweetman v. Coillte. Teoranta (C-323/17)

Brian Holohan and Others v An Bord Pleanála (C-461/17)

### **1.2.3 Role of the Competent Authority**

Article 6(3) of the EU Habitats Directive requires the competent authority to carry out the assessment and to apply the Precautionary Principle to European designated sites. In the Republic of Ireland, the competent authority is the relevant planning authority for each plan or project. The AA Screening Report provides the competent authority with the necessary information it requires to carry out its AA Screening. The competent authority can only grant consent for a plan or project once it has been ascertained that it will not adversely affect the integrity of the site concerned. Whilst the various steps involved in the assessment process must be carried out by a competent authority, consultants or project proponent may undertake a form of screening to establish if an Appropriate Assessment is required and provide advice or may submit the information necessary to allow the Competent Authority to conduct a screening with an application for consent. This Appropriate Assessment Screening Report has been prepared having regard to best scientific knowledge and an examination of potential sources of impacts and effects of the project on the receiving environment with respect to European sites.

## **1.3 Stages of the Appropriate Assessment**

There are four main stages in the AA process as follows (DoEHLG, 2010):

### **Stage One: Screening**

The process which identifies the likely impacts upon a European site of a project or plan, 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 or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse effects, an assessment of the potential mitigation of offset adverse effects. If adequate mitigation is proposed to ensure no significant adverse effects 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**

This process examines alternative ways of achieving the objectives of the project that avoid adverse effects on the integrity of the European sites. If no alternatives exist or all alternatives would result in negative effects with respect to the integrity of European sites, then the process either proceeds to Stage 4 or the project is abandoned.

### **Stage Four: Imperative Reasons Overriding Public Interest (IROPI)**

If the plan is still likely to result in adverse effects on European sites, and no further practicable mitigation is possible, then it must be rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

## Section 2 Description of the Proposed Project

### 2.1 Receiving Environment

#### 2.1.1 Phase 1 of the Scheme

Phase 1 consists of works concentrated towards the eastern end of the scheme starting at the South Circular Road and ending at the "Peoples Public Park (Páirc an Phobail)" where the proposed cycle track links to the existing footway. This section of the scheme (Phase 1) is approximately 360 m in length (refer to Figure 1). The existing environs consist of broadleaved woodland with an existing gravelled laneway which was previously an access road to a former dwelling house which is now demolished. Recent developments in the area have now rendered this laneway abandoned as there are no access requirements at this location. The laneway has fallen into disrepair over a period of time. There is evidence of regular human presence such as anti-social behaviour linked to dumping and burning of rubbish; and graffiti recorded within wooded sections of the scheme. The proposed cycleway does not traverse any watercourse crossings associated with Phase 1 of the scheme and there will be no requirement for instream works. The proposed works are located within the Barrow Catchment. The nearest designated European site is the River Barrow and River Nore SAC (Site Code: 002162), located approximately 8.8 km to the north.

### 2.2 Proposed Development

Phase 1 of the scheme will comprise the construction of a cycle track, installation of line marking, ducting and public lighting; and all associated site works (e.g. removal of woodland debris and foliage, adjustments to existing embankment; and preliminary surveys to assess the stability and condition of adjacent woodland trees).

The proposed works will comprise the following elements:

- Engage with an arborist to assess the stability and condition of the surrounding woodlands for Health and Safety Concerns in both the laneway and park areas. Remove any windblown / dead trees from the access lane. Store any off-cut logs onsite in woodland areas to enhance bug life and pollinator friendly habitats;
- Clear any debris and foliage off the existing lane to assess its bearing capacity and condition. There will be a requirement to fell trees that are unsafe in the woodland area, the extent of this cannot be fully confirmed at this time until an arborist assesses the condition of the existing windblown/ dead trees to ascertain their stability. The woodland is dominated by mature beech *Fagus sylvatica* with mature scots pine *Pinus sylvestris* within the pNHA (proposed Natural Heritage Area);
- The most easterly end of the scheme (South Circular Road) has a manmade embankment composed of glacial tills. The embankment will need to be adjusted in elevation to allow uniformity in the cycle track (embankment was most likely constructed during the construction of the adjacent retail park as evident by the difference in ground levels at this location between the existing laneway and the embankment);
- Import granular fill to create 100mm deep formation layer for the proposed cycle lane;
- The Cycle track will be constructed of 40mm depth AC20 (asphalt concrete) Dense bitumen macadam with a final 20mm deep wearing course of 10mm AC closed surface macadam. The proposed width of the cycle track is 3.0m. Section B-B (refer to Appendix 2) illustrates the proposed construction build-up of the track. There is no surface water drainage proposal for this area. Surface water will cross fall off the track and soak off into the environs as is currently in place. There will be no mechanical propelled vehicles associated with the scheme. The proposed works will be undertaken to accommodate pedestrians and cyclists;
- Line marking will be installed to delineate walking and cyclist areas; and,
- Install ducting and appropriate public lighting.

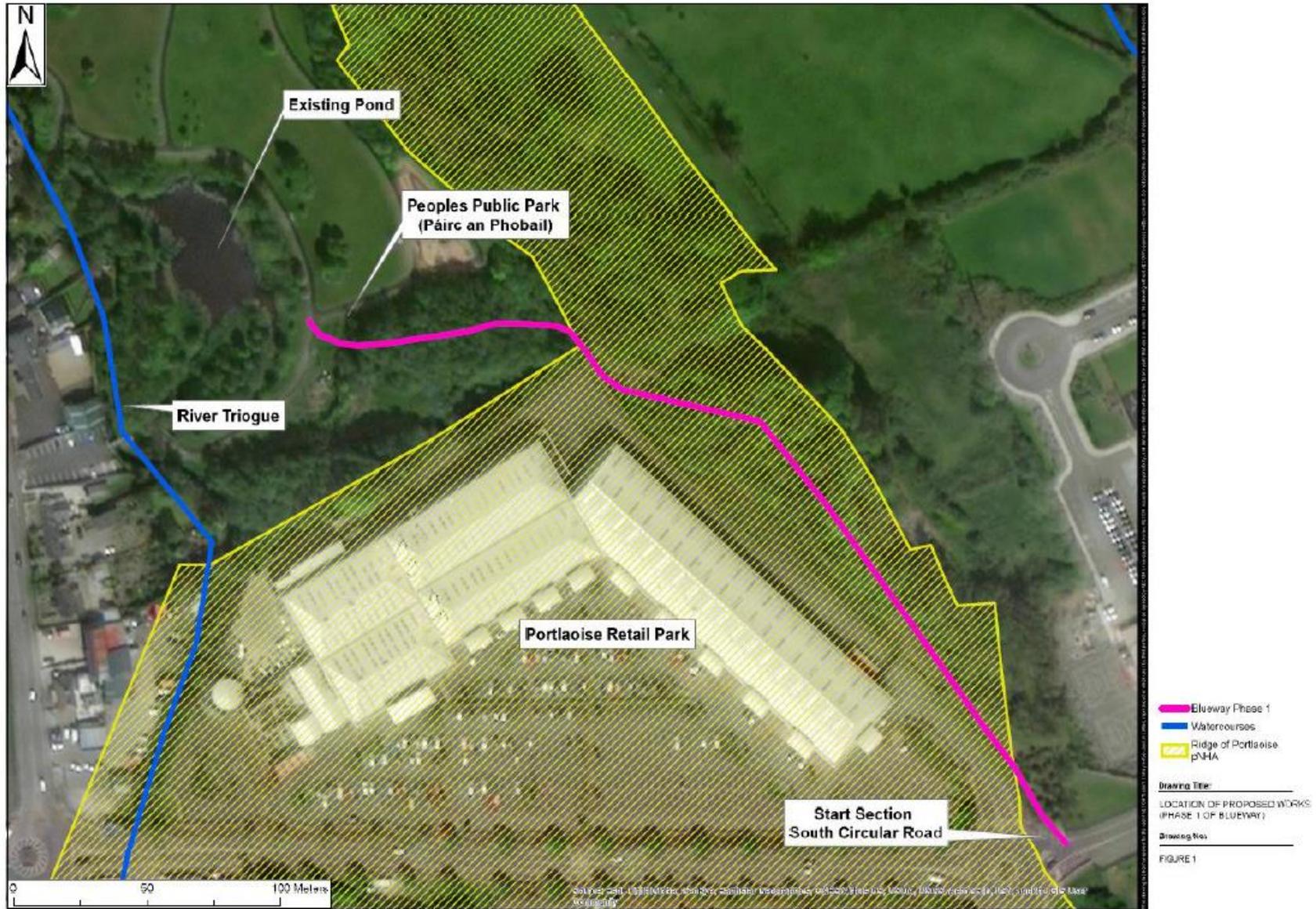


Figure 1 - Map of Triogue Blueway Phase 1

## Section 3 Existing Environment

This section of the report provides a baseline description of the ecological characteristics associated with Phase 1 of the scheme.

### 3.1.1 Ridge of Portlaoise Proposed Natural Heritage Area (pNHA) (site code: 000876)

Phase 1 of the scheme is largely concentrated within the Ridge of Portlaoise pNHA (refer to Figure 1), which was designated on a non-statutory basis in 1995 but has not since been statutorily designated. pNHAs are subject to limited protection, sometimes in the form of recognition of the ecological value of pNHAs by Planning and Licencing Authorities. Phase 1 of scheme is not located within a European site (the subject and focus of this AA Screening assessment).

The NPWS site synopsis indicates that the Ridge of Portlaoise pNHA has primarily been proposed for protection due to the presence of two nationally rare plant species, the nettle-leaved bellflower *Campanula trachelium* and blue fleabane *Erigeron acer*. The former is found in open woodland, and the latter on open gravelly areas. Nettle-leaved bellflower is a nationally rare species, which was protected under the Flora Protection Order 1987 (S.I. No. 274/1987), but was removed from this list when the revised Flora (Protection) Order 1999 (S.I. No. 94/1999) was drafted and this has remained unchanged with the more recent Flora (Protection) Order 2015 (S.I. No. 356/2015). Both plant species are listed as "Least Concern" under Ireland's most recent red list for vascular plants (Wyse Jackson et al., 2016). As defined by Wyse Jackson et al., (2016), a taxon is of 'Least Concern' when it has been evaluated against the criteria that does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in the category. Nettle-leaved bellflower and blue fleabane were both listed as "Vulnerable" in Ireland's previous red data book list of vascular plants (Curtis and McGough, 1988) but have since been removed and are now classified as "Least Concern" (Wyse Jackson et al., 2016). Therefore, the conservation importance of rare flora species associated with the pNHA have been downgraded since the site was originally proposed as a pNHA in 1995.

The pNHA is broadly characterised by habitats dominated by woodlands, calcareous grassland and disused gravel pits. Much of the adjacent Portlaoise retail park is located within the boundary of the pNHA.

### 3.1.2 Habitats (Phase 1 of the scheme)

The habitats (associated with Phase 1 of the scheme) described in the following paragraphs have been informed by a walkover survey of the site undertaken by Barry O'Loughlin (Independent Ecologist) on the 6<sup>th</sup> of March 2019, field surveys undertaken by Atkins Engineers on the 21<sup>st</sup> of June and 8<sup>th</sup> of August 2018, a review of desktop information sources including a review of an EIS prepared for Portlaoise Retail Park in the townland of Lismard, Portlaoise, Co. Laois; and a review of the NPWS Site Synopsis for the Ridge of Portlaoise pNHA (last updated on 09 December 2009 and available on <https://www.npws.ie/protected-sites/nha>). Habitats are classified in accordance with Fossitt (2000).

#### Ornamental/non-native shrub (WS3) and scrub (WS1)

This habitat category includes planting that can be found in formal beds and borders in gardens, parks and other landscaped areas. This habitat type occurs at the eastern section of the scheme from the south circular road and comprises a landscaped border dominated by non-native shrubs and ornamental garden plants comprising red robin *Photinia fraseri*, golden privet *Ligustrum Oval*, ornamental holly "Golden King" *Ilex altaderensis*, Bamboo sp. (*Phyllostachys* sp.), cherry laurel *Prunus laurocerasus*, and Larch (*Larix* sp.) recorded in March 2020. This area also grades into scrub (WS1) and comprises an abundance of common gorse *Ulex europaeus*. Phase 1 of the scheme uses an existing path through approximately 20 m of this habitat.

#### Dry calcareous and neutral grassland (GS1) / Recolonising bare ground (ED3) mosaic

The path opens up into an area of dry calcareous and neutral grassland (GS1) and recolonising bare ground (ED3) mosaic (refer to Appendix 3; Plate 1). The western side of the esker is dominated by

common gorse and Japanese rose *Rosa rugosa*. Plant species recorded include bird's-foot trefoil *Lotus corniculatus*, yarrow *Achillea millefolium*, self-heal *prunella vulgaris*, ox-eye daisy *Leucanthemum vulgare*, red clover *Trifolium pratense*, centaury *Centaureum erythraea*, bush vetch *Vicia sepium*, knapweed *Centaurea nigra*, ribwort plantain *Plantago lanceolata*, colt's-foot *Tussilago farfara*, perforate St. John's-wort *Hypericum perforatum*, fairy flax *Linum catharticum*, ivy *hedera helix* and field horsetail *Equisetum arvense*. There was some encroachment of bramble *Rubus fruticosus* agg., birch (*Betula* sp.) and beech *Fagus sylvatica* saplings, common gorse, ivy and nettle *Urtica dioica*. A single bee orchid *Orphys apifera* and pyramidal orchids *Anacamptis pyramidalis* (five orchids in total) were also recorded in June 2018. It should be noted that a colony of blue fleabane plants were recorded in August 2018 on the northern and southern side of the existing track (off the existing track with some specimens noted within 1 m of the track). The plants are located outside the footprint of the proposed works. Phase 1 of the scheme uses an existing path for approximately 70 m of this habitat.

#### Mixed broadleaved woodland (WD1)

This general category includes woodland areas with 75-100% cover of broadleaved trees, and 0-25% cover of conifers. The woodland canopy comprises mixed broadleaved tree stands (dominated by mature beech) with some occasional mature stands of scots pine that corresponds to mixed broadleaved woodland (WD1) (refer to Appendix 3; Plate 2). Tree stands attain heights of approximately 25 m. Other occasional trees recorded include hazel *Corylus avellana*, ash *Fraxinus excelsior*, elder *Sambucus nigra*, holly *Ilex aquifolium* and Hawthorn *Crataegus monogyna*. The existing track/laneway (approximately 1-2 wide) bisects the woodland where several windblown/fallen trees (predominantly beech) traverse the existing laneway known as "Downs Lane". The eastern side of the woodland track comprises a steep slope. The shrub and ground layer is dominated woodland plants comprising ivy, Atlantic ivy *Hedera hibernica*, bluebell *Hyanthoides non-scripta*, wild garlic/ramsons *Allium ursinum*, sanicle *Sanicula europaea*, meadow sweet *Filipendula ulmaria*, cleavers *Galium aparine*, herb Robert *Geranium robertianum*, bramble, honeysuckle *Lonicera periclymenum*, lords-and-ladies *Arum maculatum*, daffodil sp. *Narcissus* sp., lesser cellandine *Ficaria verna*, hart's-tongue fern *Asplenium scolopendrium*, hard fern *Blechnum spicant*, and common dog-violet *Viola riviniana*. Wild angelica *Angelica sylvestris* is present where the woodland canopy opens up. There is evidence of anti-social behaviour such as dumping and burning of rubbish; and graffiti recorded within the woodland habitat. There will be a requirement to fell trees that are unsafe in the woodlands area, the extent of this cannot be fully confirmed at this time until an arborist assesses the condition of the existing windblown/ dead trees to ascertain their stability. Phase 1 of the scheme uses an existing path through approximately 125 m of this habitat.

#### Recolonising bare ground (ED3), Dry meadows and grassy verges (GS2) and Mixed broadleaved woodland (WD1)

Emerging from the woodland, the laneway merges onto an existing gravel track surrounded by dry meadows and grassy verges (GS2) and recolonising bare ground (ED3). The proposed scheme continues along the gravel track for approximately 40 m before deviating off the gravel track. The proposed scheme exits the gravel track onto a worn pathway (used by members of the public) that traverses a small section of mixed broadleaved woodland (refer to Appendix 3; Plate 3) comprising semi-mature stands of beech for approximately 70 m where Phase 1 of the scheme links to the existing footway and ends at the "Peoples Public Park (Páirc an Phobail)". The semi-mature woodland in this section of the scheme is outside the pNHA and there will be a requirement to fell some semi-mature beech trees to facilitate widening of the proposed cycle track, the extent of this cannot be fully confirmed at this time until an arborist assesses the condition of the existing windblown/ dead trees to ascertain their stability.

No rare or protected flora listed on Annex II of the Habitats Directive (e.g. such as Killarney Fern *Trichomanes speciosum* was identified during field surveys). Furthermore, no badger setts or otter holts/natal dens, resting places or couches were identified within 50 to 150 m of the scheme (Phase 1) (NRA, 2006).

## Section 4 Methodology for AA Screening

### 4.1 Sources of Guidance

#### 4.1.1 European and National Guidance

This Report has been prepared in accordance with the European Commission guidance document 'Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC' (EC, 2001) and the Department of the Environment's Guidance 'Appropriate Assessment of Plans and Projects in Ireland' (December 2009, amended February 2010). In addition to the guidelines referenced above, the following relevant guidance was considered during the preparation of this report:

- European Communities (2018) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission
- Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission
- DEHLG (2010) Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular Letter NPWS 1/10 & PSSP 2/10. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin

The European Commission (EC) has published guidance on the provisions of Article 6 of the Habitats Directive, including AA (EC, 2018). This updates the original EC guidance on Article 6 (EC, 2000), but should be read in conjunction with this and other EC guidance available online.

### 4.2 Criteria to Identify Relevant European Sites

The 'source-pathway-receptor' model is used to identify a list of preliminary European sites and their QIs/SCIs potentially at risk of likely significant effects. 'Relevant' QIs/SCIs are those that occur within the Zone of Influence (ZoI) of likely significant effects.

#### 4.2.1 The Source-Pathway-Receptor Model

The assessment of impacts on European sites is carried out using a standard 'Source-Pathway-Receptor' model, where, for an impact to be established, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is enough to conclude that a potential effect is not of any relevance or significance. This assessment determines if direct, indirect and cumulative effects will arise from the Proposed Project. The model focuses on the QIs/SCIs for which European sites have been designated and identified within the ZoI. An example of this model is provided below:

- Source(s): e.g. excavations; earthworks
- Pathway(s): e.g. surface water pollution (i.e. suspended solids and sediment release)
- Receptor(s): e.g. pollution to aquatic environments downstream designated for QI otter

The model is focused solely on relevant QIs/SCIs for which European sites are designated. Any Conservation Objectives referred to in this report are referenced to identify the date of publication and version number.

#### 4.2.2 Establishing the Zone of Influence (ZoI)

The proposed works have the potential to result in a range of environmental effects. The analysis of these effects, using scientific knowledge and professional judgement, leads to the identification of a ZoI. The proximity of the proposed works to European sites, and more importantly their QI/SCI, can be critical in identifying source-pathway-receptor models which could result in significant effects. Habitats and plants are not mobile; however, fauna species are and their predicted mobility outside European sites (i.e. range) will affect whether they occur within the ZoI. Establishing a ZoI takes into consideration mobile species core foraging, roosting and breeding ranges.

The Department of Environment, Heritage and Local Government's Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DEHLG, 2010) was consulted to determine the approach for selecting European sites to be considered in AA Screening. It states that European sites with potential to be affected by the project should be identified taking into consideration the potential for direct, indirect and/or cumulative effects. It also states that the specific approach in each case is likely to differ depending on the scale and likely effects of the plan or project. However, it advises that the following sites should generally be included:

- All European sites within or immediately adjacent to the plan or project area;
- All European sites within the likely zone of impact of the plan or project; and,
- Adopting the Precautionary Principle, all European sites for which there is doubt as to whether or not such sites might be significantly affected.

The "likely zone of impact" (or sometimes referred to as 'likely zone of influence') of a plan or project is the geographic extent over which significant ecological effects are likely to occur. The departments guidance document prescribes a 15 km distance threshold for plans for the boundary of a plan area only. In the case of projects, the guidance acknowledges that the zone of influence must be devised on a case by case basis with reference to the following criteria: The nature, size/scale and location of the project, sensitivity of ecological receptors under consideration; and cumulative effects. The favourable reference range is the total geographical area within which all significant ecological variations of the habitat or species are included, and which is sufficiently large to allow the long-term survival of the habitat or species (NPWS, 2019a). The most up to date GIS spatial datasets for European sites were downloaded from the NPWS website ([www.npws.ie](http://www.npws.ie)) and potential pathways within the ZoI were identified. This assessment considers the ecological characteristics and requirements of the QIs/SCIs of European sites that have been identified within the ZoI.

#### 4.2.3 Desk Study

A desk study was carried out to determine key features of ecological interest in relation to Phase 1 of the scheme in the context of European sites. The following desktop sources of information were consulted to inform the AA Screening Assessment:

- Review of the NPWS site synopsis, conservation objectives and Natura 2000 Standard Data Forms for European sites identified within the ZoI of the project available online ([www.npws.ie](http://www.npws.ie));
- Information on "favourable reference ranges" of mobile QI populations in Volume 1 and Volume 3 of NPWS Article 17 Reports: Status of EU Protected Habitats and Species in Ireland (NPWS, 2019a and NPWS, 2019c) and associated digital shapefiles obtained from the NPWS Research branch;
- Distribution of mobile QI and SCI populations of European sites held online by the National Biodiversity Data Centre (NBDC)<sup>3</sup> and Irish Bird Atlas (Balmer et al. 2013);
- Information on threats to, conservation condition, and habitat characteristics of Annex 1 habitats in Volume 2 of NPWS' Status of EU Protected Habitats and Species in Ireland (NPWS, 2019b) and species assessments (NPWS, 2019c);
- Data including surface and ground water quality status, hydrometric data available from Environmental Protection Agency (EPA)<sup>4</sup> online database;
- Data on the extent and vulnerability of local groundwater bodies;
- Boundaries for catchments with confirmed or potential freshwater pearl mussel (*Margaritifera margaritifera*) populations available online from the NPWS;
- Estimates of waterbird numbers wintering in Ireland, 2011/12–2015/16 (Burke et al., 2018);
- Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10–2015/16 (Lewis et al., 2019);
- National Survey of Breeding Hen Harrier in Ireland (Ruddock et al., 2016);
- Review of EIS for Portlaoise Retail Park in the townland of Lismard, Portlaoise, Co. Laois (undated);

<sup>3</sup> <https://maps.biodiversityireland.ie/>. Accessed April 2020.

<sup>4</sup> EPA MAPS (2020) Available online at: <https://gis.epa.ie/EPAMaps/>. Accessed April 2020.

- Laois Esker Survey 2005 Volume 1: Report Text (Report Prepared for Laois Heritage Forum (Tubridy and Associates, 2005);
- Review of Ecology Technical Note in relation to the Portaoise Cycleway prepared for Laois County Council by Atkins Engineering Consultants (Atkins, 2018);
- National survey of native woodlands 2003-2008' report (Perrin et al., 2008), and the 'Results of a monitoring survey of old sessile oak woods and Alluvial Forests (O'Neill and Baron, 2013);
- The Irish semi-natural grasslands survey 2007-2012 (O'Neill et al., 2013);
- Interpretation Manual of European Union Habitats (EC, 2013);
- Assessing Connectivity with Special Protection Areas (SPAs) (SNH, 2016); and,
- Review of online planning applications<sup>5</sup>

### 4.3 Consultation

In order to inform the AA Screening report and taking into account the distribution of European sites in the wider surrounding environs, consultation was undertaken with statutory consultees including the Development Applications Unit (DAU)/National Parks and Wildlife Service (NPWS) in April 2020. Consultees were invited to provide commentary and observations in relation to the proposed scheme on biodiversity. The DAU acknowledged receipt of email correspondence in April 2020; however, the DAU did not make any observations in relation to the proposed development. No further response has been received to date (at the time of writing).

### 4.4 Field surveys

A walkover survey of the site and classification of habitats was undertaken by Mr. Barry O'Loughlin (Independent Ecologist) on the 6th of March 2019. The baseline description outlined in Section 3 (Existing Environment) was informed by field surveys undertaken by Atkins Engineers on the 21st of June and 8th of August 2018. Evidence of mammals, tracks and signs were identified and recorded as they were encountered in the field. All habitats were classified in accordance with Fossitt (2000).

### 4.5 Criteria for Assessment of Likely Significant Effects

The following parameters are described when characterising impacts<sup>6</sup>:

**Direct and Indirect Impacts** - An impact can be caused either as a direct or as an indirect consequence of a Plan/Project.

**Magnitude** - Magnitude measures the size of an impact, which is described as high, medium, low, very low or negligible.

**Extent** - The area over which the impact occurs – this should be predicted in a quantified manner.

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

- Temporary: Up to 1 Year;
- 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 the effect occurring taking into account all available information.

<sup>5</sup> [www.myplan.ie](http://www.myplan.ie). Accessed April 2020.

<sup>6</sup> These descriptions are informed by publications including: Chartered Institute of Ecology and Environmental Management (2018) "Guidelines for ecological impact assessment"; Environmental Protection Agency (2017) "Draft Guidelines on the Information to be contained in Environmental Impact Statements"; and National Roads Authority (2009) "Guidelines for Assessment of Ecological Impacts of National Roads Schemes".

- 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.

## Section 5 Screening for Appropriate Assessment

### 5.1 Introduction to Screening

This stage of the process identifies any potential significant effects to European sites from a project or plan, either alone or in combination with other projects or plans.

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. Known threats and pressures to the ecological / environmental conditions that are required to support QIs and SCIs are considered as part of the assessment.

Where available, Site-Specific Conservation Objectives (SSCOs) designed to define favourable conservation status (e.g. attributes and targets) for a particular habitat<sup>7</sup> or species<sup>8</sup> at the relevant European site have been considered in the preparation of this assessment.

### 5.2 Identification of Relevant European Sites

European sites within the ZoI were identified using relevant datasets (e.g. European designated site boundaries available from [www.npws.ie](http://www.npws.ie), hydrological features such as rivers and streams available from [www.epa.ie](http://www.epa.ie), groundwater features available from [www.gsi.ie](http://www.gsi.ie)) and were overlain on GIS software application work packages (ArcGIS). Furthermore, various desktop records and online databases were consulted to identify sites within the ZoI of the project (refer to Section 4).

Based on the nature and scale of the proposed development and potential impacts for effects (direct and indirect) both alone and in-combination with other plans and projects, relevant European sites are those that include the following: features within the site, features with hydrological connectivity, water catchments (in this case, Barrow catchment), proximal distance to European sites and those with mobile SCIs and QIs that may be present within or that could be impacted by Phase 1 of the scheme. The following criteria were also taken into consideration: size and scale, land-take, distance from the European site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements and duration of construction and operation. It should be noted that other European sites deemed to be outside of the ZoI were considered as part of this review but were discounted on the basis of a lack of a complete source-pathway-receptor linkage (e.g. absence of hydrological connectivity, located upstream, outside core foraging, breeding and distribution ranges for mobile species and absence of suitable habitat) (e.g. River Nore SPA (004233)). The relevant European sites are discussed within this section and summarised in Table 5.1. The distribution of the relevant European sites in relation to the ZoI of the project are presented in Figure 2.

In relation to screening of Special Protection Areas, in the absence of any specific European or Irish guidance in relation to such sites, the Scottish Natural Heritage (SNH) Guidance, *Assessing Connectivity with Special Protection Areas* (SNH, 2016) and other scientific publications was consulted. This document assesses connectivity between development proposals and SPAs. The guidance takes into consideration the core foraging distance ranges for a number of bird species from roost sites both within and outside SPAs. The guidance document also outlines information on

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<sup>7</sup> 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.

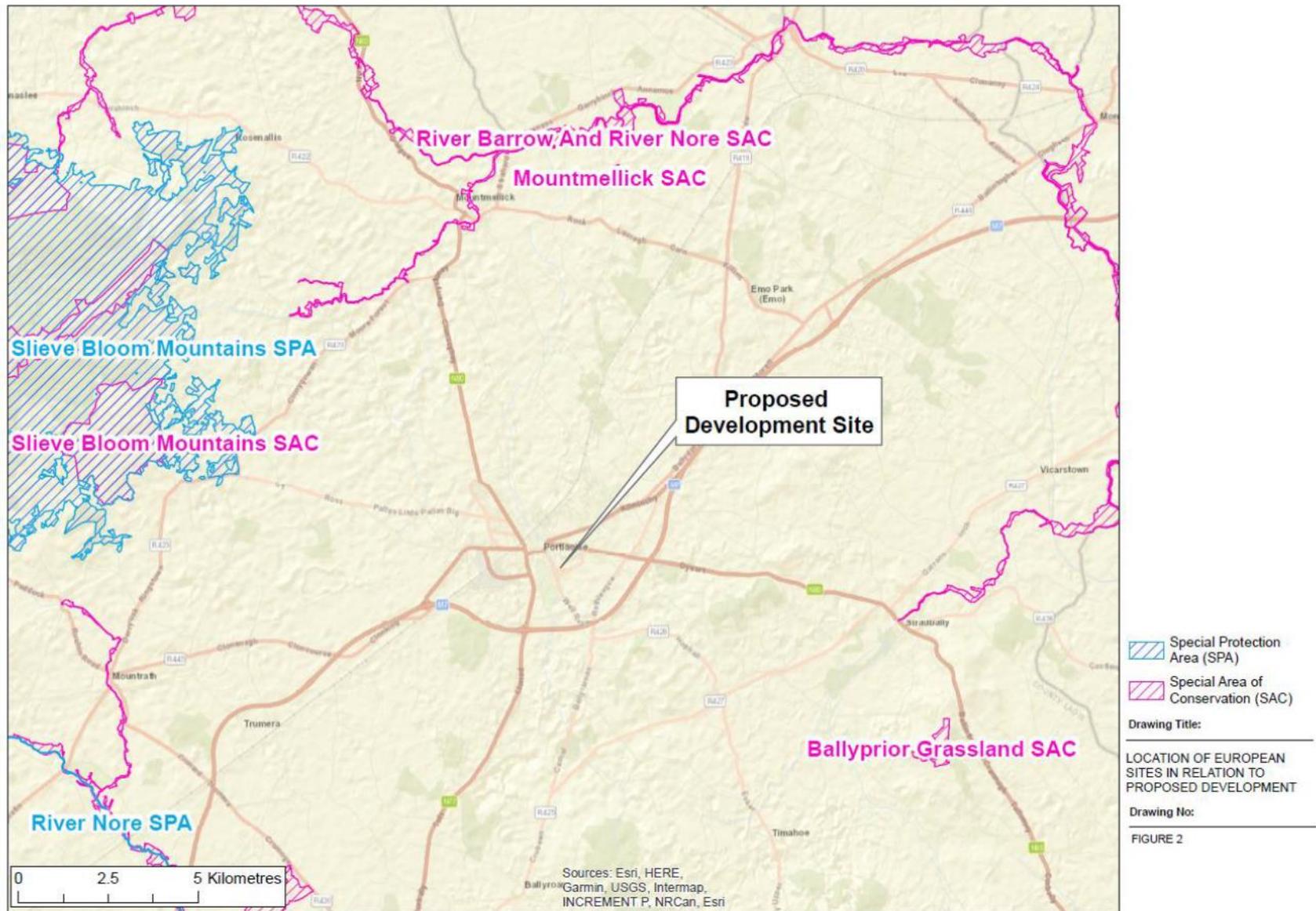
<sup>8</sup> The favourable conservation status of a species is achieved when: population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; the natural range of the species is neither being reduced nor is 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.

dispersal and foraging ranges of bird species which are frequently encountered when considering plans and projects.

**Table 5.1 European Sites Identified within the ZoI of the Project.**

Site Code	Site Name	Distance (Km)	Qualifying Features (QIs/SCIs)	Conservation Objectives	Connectivity to the Proposed Development / ZoI Determination	Potential Significant Effects
002162	River Barrow and River Nore SAC	8.8 km north	<ul style="list-style-type: none"> <li>• Estuaries [1130]</li> <li>• Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>• Reefs [1170]</li> <li>• Salicornia and other annuals colonising mud and sand [1310]</li> <li>• Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</li> <li>• Mediterranean salt meadows (<i>Juncetalia maritim</i>) [1410]</li> <li>• Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]</li> <li>• European dry heaths [4030]</li> <li>• <i>Hydrophilous</i> tall herb fringe communities of plains and of the montane to alpine levels [6430]</li> <li>• Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>• Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> <li>• <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</li> <li>• <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</li> <li>• <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]</li> <li>• <i>Petromyzon marinus</i> (Sea Lamprey) [1095]</li> <li>• <i>Lampetra planeri</i> (Brook Lamprey) [1096]</li> <li>• <i>Lampetra fluviatilis</i> (River Lamprey) [1099]</li> <li>• <i>Alosa fallax fallax</i> (Twaiite Shad) [1103]</li> <li>• <i>Salmo salar</i> (Salmon) [1106]</li> </ul>	To restore or maintain the favourable conservation status of the qualifying interests (QIs) for which the SAC is designated. (NPWS, 2011). Detailed conservation objectives have been prepared for the European site and are available at <a href="http://www.npws.ie">www.npws.ie</a> .	The proposed development is not directly hydrologically connected to the SAC. The Triogue River is located approximately 70 meters to the west of the proposed works at its nearest point. The River Triogue drains to the SAC located 13.8 km downstream. Potential exists for indirect hydrological connectivity associated with run-off during construction works. Consequently, the SAC is located within the ZoI of the proposed development.	<p>There is no potential for direct impacts for effects as the proposed works are located entirely outside of the SAC boundary. Therefore, direct effects on the SAC can be excluded.</p> <p>Potential indirect effects on the SAC during the construction phase of the project include:</p> <ul style="list-style-type: none"> <li>• Water pollution (run-off during site works with potential for discharge of pollutants to the River Triogue and consequently the SAC located further downstream; and,</li> <li>• Disturbance/Displacement to mobile QI species (e.g. otter) (noise; artificial lighting and increased human presence)</li> </ul>

Site Code	Site Name	Distance (Km)	Qualifying Features (QIs/SCIs)	Conservation Objectives	Connectivity to the Proposed Development / ZoI Determination	Potential Significant Effects
			<ul style="list-style-type: none"> <li><i>Lutra lutra</i> (Otter) [1355]</li> <li><i>Trichomanes speciosum</i> (Killarney Fern) [1421]</li> <li><i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]</li> </ul>			
004160	Slieve Bloom Mountains SPA	9.2 km west	<ul style="list-style-type: none"> <li>Hen Harrier (<i>Circus cyaneus</i>) [A082]</li> </ul>	<p>The generic conservation objective (NPWS, 2018) for this designated site is as follows:</p> <p><i>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests of the SPA.</i></p>	<p>The proposed development is located within the maximum foraging range for breeding hen harrier associated with the SPA (i.e. 10 km (SNH, 2016)). Consequently, the SPA is located within the ZoI of the proposed development.</p>	<p>There is no potential for direct impacts as the proposed works are located entirely outside of the SPA boundary. Therefore, direct effects on the SPA can be excluded.</p> <p>Potential indirect effects on the SPA during the construction and operational phase of the project include:</p> <ul style="list-style-type: none"> <li>Disturbance/Displacement to SCI mobile species: noise; artificial lighting, increased human presence.</li> </ul>



**Figure 2 - Site location**

European sites located in the wider surroundings were also considered as part of the screening exercise but have been discounted on the basis of an absence of a complete source-pathway-receptor chain. This encompasses sites that are located upstream or in a separate river catchment to the proposed development, lack of hydrological pathways; or sites whose species core foraging, roosting and breeding ranges occur outside the ZoI of the proposed development:

- Mountmellick SAC (Site Code: 002141) (10.3 km north). No hydrological connectivity or otherwise linking the proposed scheme to the SAC. The SAC is designated for *Vertigo moulinsiana* (Desmoulin's Whorl Snail) [1016].
- Ballyprior Grassland SAC (Site Code: 002256) (10.8 km south-east). No hydrological connectivity or otherwise linking the proposed scheme to the SAC. The SAC is designated for Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (\* important orchid sites) [6210].
- Slieve Bloom Mountains SAC (Site Code: 000412) (11 km west). No hydrological connectivity or otherwise linking the proposed scheme to the SAC. The SAC is designated for Northern Atlantic wet heaths with *Erica tetralix* [4010], Blanket bogs (\* if active bog) [7130] and Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0].
- River Nore SPA (Site Code: 004233) (12.4 km south-west). No hydrological connectivity or otherwise linking the proposed scheme to the SPA. The SPA is designated for Kingfisher (*Alcedo atthis*) [A229]. Phase 1 of the scheme is located outside the core foraging distance range for the SCI species associated with the SPA (kingfisher territories tend to cover at least 1 km of watercourse and may extend to 3-5 km (NRA, 2009)).
- Knockacoller Bog SAC (Site Code: 002333) (17.3 km south-west). No hydrological connectivity or otherwise linking the proposed scheme to the SAC. The SAC is designated for Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the *Rhynchosporion* [7150].

### 5.2.1 Conservation Objectives

The Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. It is an aim of NPWS to draw up conservation management plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site.

Site-specific conservation objectives have been prepared for a number of European sites. These detailed conservation objectives aim to define favourable conservation condition for the qualifying habitats and species at that site by setting targets for appropriate attributes which define the character habitat and/or species. The maintenance of the favourable condition for these habitats and species at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat can be described as being achieved when: '*its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that 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*'.

Favourable conservation status of a species can be described as being achieved when: '*population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or 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*'.

#### Generic Conservation Objective for SACs:

- To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

#### One generic Conservation Objective for SPAs:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

The NPWS site synopsis for the River Barrow and River Nore SAC and Slieve Bloom Mountains SPA is presented in Appendix 4. A review of site-specific conservation objectives (NPWS, 2011) of River Barrow and River Nore SAC was conducted to inform the AA Screening. The associated attributes and targets for the relevant QIs as described in the conservation objective document (NPWS, 2011) was reviewed and considered as part of this assessment. The generic conservation objectives (NPWS, 2018) for the Slieve Bloom Mountains SPA was taken into consideration during the preparation of this AA Screening report.

### 5.2.2 Threats and Pressures

The site-specific threats, pressures and activities (Natura 2000 Standard Data Form for the River Barrow and River Nore SAC and Slieve Bloom Mountains SPA) with potential to affect European sites within the ZoI were reviewed and considered in relation to the proposed development and are presented in Table 5.2 and Table 5.3.

**Table 5.2 Identified threats, pressures and activities with impacts on the River Barrow and River Nore SAC (Natura 2000 Standard Data Form ([www.npws.ie](http://www.npws.ie)))**

Rank	Threats and Pressures (including code)	Activities, Management	Inside / outside (or both)	Impact Type
Medium	Intensive cattle grazing (A04.01.01)	Not Applicable (N/A)	Inside	Negative
High	Pollution to surface waters (limnic, terrestrial, marine & brackish) (H01)	N/A	Both	Negative
Medium	Water abstractions from surface waters (J02.06)	N/A	Inside	Negative
Medium	Use of fertilizers (forestry) (B05)	N/A	Both	Negative
Medium	Forest and Plantation management & use (B02)	N/A	Both	Negative
Low	Netting (F02.01.02)	N/A	Inside	Negative
Medium	Changes in abiotic conditions (M01)	N/A	Inside	Negative
Low	Removal of hedges and copses or scrub (A10.01)	N/A	Inside	Negative
Medium	Fishing and harvesting aquatic resources (F02)	N/A	Outside	Negative
High	Dykes and flooding defense in inland water systems (J02.12.02)	N/A	Inside	Negative
Low	Intensive fish farming, intensification (F01.01)	N/A	Inside	Negative
Low	Leisure fishing (F02.03)	N/A	Inside	Negative
Medium	Peat extraction (C01.03)	N/A	Outside	Negative
High	Modifying structures of inland water courses (J02.05.02)	N/A	Inside	Negative
Low	Sand and gravel quarries (C01.01.01)	N/A	Both	Negative
Medium	Reduction in migration/ migration barriers (J03.02.01)	N/A	Inside	Negative
Medium	Invasive non-native species (I01)	N/A	Inside	Negative
Medium	Dredging/ removal of limnic sediments (J02.02.01)	N/A	Inside	Negative
High	Erosion (K01.01)	N/A	Inside	Negative
Low	Industrial or commercial areas (E02)	N/A	Outside	Negative
Medium	Human induced changes in hydraulic conditions (J02)	N/A	Both	Negative
Medium	Forestry activities not referred to above (B07)	N/A	Both	Negative
High	Agricultural intensification (A02.01)	N/A	Both	Negative
Low	Port areas (D03.01)	N/A	Inside	Negative
Low	N/A	(B02.01.01)	Both	Positive

**Table 5.3 Identified threats, pressures and activities with impacts on Slieve Bloom Mountains SPA (Natura 2000 Standard Data Form ([www.npws.ie](http://www.npws.ie)))**

Rank	Threats and Pressures (including code)	Activities, Management	Inside / outside	Impact Type
Low	Dispersed habitation (E01.03)	N/A	Inside	Negative
High	Grazing (A04)	N/A	Outside	Negative
High	Silviculture, forestry (B)	N/A	Outside	Negative
Low	Paths, tracks, cycling tracks (D01.01)	N/A	Inside	Negative
Low	Grazing (A04)	N/A	Inside	Negative
High	Silviculture, forestry (B)	N/A	Inside	Negative
Low	Roads, motorways (D01.02)	N/A	Inside	Negative
Medium	Peat extraction (C01.03)	N/A	Inside	Negative
Low	Dispersed habitation (E01.03)	N/A	Outside	Negative
Low	N/A	Paths, tracks, cycling tracks (D01.01)	Inside	Positive
Low	N/A	Dispersed habitation (E01.03)	Inside	Positive
Low	N/A	Dispersed habitation (E01.03)	Outside	Positive
High	N/A	Silviculture, forestry (B)	Outside	Positive
High	N/A	Silviculture, forestry (B)	Inside	Positive
High	N/A	Grazing (A04)	Inside	Positive
Low	N/A	Grazing (A04)	Inside	Positive

## 5.3 Potential Significant Effects on European Sites

### 5.3.1 Potential Sources of Impact with Potential to Give Rise to Effects

The construction phase elements of the project also introduce potential sources for effects to ecological processes such as:

- Deterioration in water quality (surface water pollution); and,
- Disturbance (e.g. noise, artificial lighting and increased human presence)

Given the relatively small-scale nature of the proposed works, operational phase sources of effects are limited to increased human activity. The proposed project is small and localised in scale and the proposed timeline is four to six weeks to complete. Therefore, the construction and operational phase effects identified are considered in the context of European sites identified above, including their sensitivities and conservation objectives.

## 5.4 Screening for Appropriate Assessment Matrix

### 5.4.1 Article 6(3) Assessment Criteria

The Screening Assessment criteria examined in the impact assessment section of this document follows the recommended screening matrix structure detailed in the European Commission's Guidance 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" (EC, 2001). This section provides a Screening for AA for the proposed development works. Table 5.4 provides a matrix assessing potential effects, direct and indirect, to European sites within the project ZoI.

In order to determine the potential for impacts and effects associated with the proposed scheme on European sites, threats and pressures on the relevant QIs and SCIs of European sites were considered (see Tables 5.2 and Table 5.3). Since the conservation objectives for the European sites focus on maintaining the favourable conservation condition of the qualifying interests of each site, the screening process concentrates on assessing the potential implications of the scheme (Phase 1) against the QIs and SCIs of European sites.

#### 5.4.2 Is the proposed project Necessary to the Management of European sites?

The proposed works are not directly connected with or necessary to the management of any European site. The overarching objective of the proposed project is to install a cycle track equipped with line marking, ducting and public lighting; and all associated site works in an area located outside the boundary of any European site.

#### 5.4.3 Description of Individual Elements of the Project with Potential to give Rise to Effects on the European Site

Phase 1 of the scheme will comprise the construction of a cycle track, installation of line marking, ducting and public lighting; and all associated site works (e.g. removal of woodland debris and foliage, adjustments to existing embankment; and preliminary surveys to assess the stability and condition of adjacent woodland trees). Elements of the project that could give rise to potential significant effects on European sites include:

- Construction of the cycle track with potential for run-off of pollutants to watercourses in the wider surroundings; and,
- Noise generation associated with construction of the cycle track and increased human presence (e.g. cyclists, walkers) during the operational phase with potential to disturb QI species and SCI birds within the ZoI of the project.

#### 5.4.4 Description of any Likely Direct, Indirect or Secondary Effects of the Project on European Sites

Any likely direct, indirect or secondary effects of the Proposed Project, both alone and in combination with other plans and projects, on the identified European sites in light of their conservation objectives by virtue of the following criteria: size and scale, land-take, distance from the European site or key features of the site, resource requirements (such as water abstraction), emissions (disposal to land, water or air), excavation requirements, transportation requirements and duration of construction, operation or decommissioning are presented in Table 5.4.

**Table 5.4 Likely Significant Effects of the Proposed Project on European Sites**

Likely Direct, Indirect or Secondary Effects of the Project on European Sites	
<b>Size and Scale</b>	There will be no potential for significant effects as a result of the size and scale of the proposed works. The project is of a nature, type, size and scale such that any changes are unlikely to result in any negative effects on any European site. Given that the proposed works are temporary in duration; and restricted outside the boundary of any European site, no potential for significant effects with respect to size and scale are foreseen.
<b>Land-take</b>	There will be no land take associated with the proposed development within any European site (i.e. River Barrow and River Nore SAC and Slieve Bloom Mountains SPA). All works will be confined within the proposed development footprint and no potential for significant effects on European sites are anticipated.
<b>Distance from European Sites or Key Features of the Site</b>	The proposed development is not located within the boundary of any European site and potential direct effects are not anticipated. The River Barrow and River Nore SAC is located 8.8 km north and the Slieve Bloom Mountains SPA is located 9.2 km west. The SAC is located 13.8 km downstream (River Triogue located 70 m west of the scheme).
<b>Resource Requirements</b>	There will be no exploitation of any resources within any European site as part of the proposed development and therefore effects in this regard on any of the European sites within the ZoI of the proposed development can be discounted.
<b>Emissions</b>	No direct effects on any European sites are predicted.  Potential indirect effects during the construction phase could include discharge (run-off) to receiving watercourses in the wider surroundings should silt and sediment become entrained or suspended solids become mobilised via the River Triogue and transported to the River Barrow and River Nore SAC further downstream. However, such a scenario arising is deemed to be an unlikely occurrence given that the River Triogue is located over 70 m west of the scheme and is buffered by an area of amenity grassland (associated

<b>Likely Direct, Indirect or Secondary Effects of the Project on European Sites</b>	
	<p>with the Public Park) with suitable filtration capacity to absorb any potential run-off. While the River Triogue is located 70 m away from the Phase 1 of the scheme, a review of hydrometric data for the River Triogue (flow rates and water levels) indicates that dilution factors associated with the watercourse are high (<a href="https://gis.epa.ie/EPAMaps/">https://gis.epa.ie/EPAMaps/</a> (Accessed April 2020)). Significant effects on water quality in the downstream catchment and SAC is not anticipated.</p> <p>Taking into consideration the localised nature and temporary duration (four to six weeks) of the proposed works together with separation distance of the River Barrow and River Nore SAC (8.8 km north and 13.8 km downstream from the nearest watercourse to Phase 1 of the scheme), no potential for significant effects associated with emissions on European sites are anticipated.</p> <p>Groundwater – source-pathway-receptors to ground water systems were considered during the assessment of impacts. The proposed works are located in a Regionally Important Aquifer – karstified (diffuse) (Rkd)) (groundwater predominantly flows through fractures, fissures, joints or conduits). The bedrock geological characteristics (consist of thick bedded limestone while underlying soils and sub-soils are made up of esker sands and gravels. The aquifer vulnerability rating is classed as “moderate’ to “high” (<a href="https://gis.epa.ie/EPAMaps/">https://gis.epa.ie/EPAMaps/</a> (Accessed April 2020)). A review of groundwater datasets held on EPA’s map viewer reveals that Phase 1 of the scheme lies outside “groundwater in SAC habitats” and “groundwater in SAC species”. This indicates that the scheme lies outside WFD groundwater bodies that intersect with designated SACs Conservation Objectives habitats and species under the EU Habitats Directive (together with the Birds Directive). No significant effects associated with hydro-geological pathways on European sites within the ZoI of the project are anticipated.</p> <p>With regards to emissions, no significant effects on European sites are anticipated as a result of the proposed works.</p>
<b>Excavation Requirements</b>	<p>There is no requirement for excavations within the boundary of any European site, therefore, no direct impacts relating to site excavations are predicted.</p> <p>The proposed works will require some excavations to construct the cycle track and to make adjustments in elevations to the manmade embankment at the eastern end of the scheme. The Cycle track will be constructed to a 40mm depth with AC20 Dense bitumen macadam with a final 20mm deep wearing course of 10mm AC closed surface macadam. There will be no requirement for instream works or interference with any watercourse. Taking into consideration the localised nature and temporary duration of the proposed works, together with the location of the nearest watercourse (River Triogue) is located over 70 m from Phase 1 of the scheme, no potential indirect effects are foreseen. Emissions of pollutants to surface waters have been discounted on this basis.</p> <p>With regard to excavation requirements, no significant effects on European sites are anticipated as a result of Phase 1 of the proposed works.</p>
<b>Transportation Requirements</b>	<p>There is no requirement for transportation within the boundary of any European site, therefore, no direct effects associated with the scheme (Phase 1) is anticipated. Access to the site will be restricted to areas outside the boundary of European sites including River Barrow and River Nore SAC and Slieve Bloom Mountains SPA. No pathway for direct or indirect effects on the QIs and SCIs of any European site as a result of the transportation requirements associated with the proposed development has been identified. With regards to transportation requirements, no significant effects on European sites are anticipated as a result of the proposed works.</p>
<b>Duration of Construction, Operation, Decommissioning</b>	<p>The programme for Phase 1 of the scheme is scheduled to last for four to six weeks. The proposed works will be temporary in duration. No potential for effects arising specifically as a result of each phase of Phase 1 of the scheme have been identified. No potential for significant effects on European sites is anticipated.</p>

#### 5.4.5 Description of any Likely Changes to European Sites

Any potential changes to the European sites are described in Table 5.5 with reference to the following criteria: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value (e.g. water quality and disturbance) and climate change.

**Table 5.5 Likely Changes to European Sites**

<b>Likely Changes to European Sites</b>	
<b>Reduction of Habitat Area</b>	There will be no reduction of habitat area associated with Phase 1 of the scheme within any European site. All works will be confined within the footprint of the proposed works and no potential for significant effects on European sites are anticipated.

Likely Changes to European Sites	
<b>Disturbance to Key Species</b>	<p>There will be no requirement for works within the boundary of any European site; therefore, direct effects on key species associated with European sites is not anticipated.</p> <p><b>River Barrow and River Nore SAC</b></p> <p>Indirect effects on mobile species such as otter associated with the River Barrow and River Nore SAC was considered in this assessment. The National Otter Survey of Ireland 2010/12 (Reid et al., 2013) reports that the territory of female otters in mesotrophic rivers is approximately 7.5 +/- 1.5km in length and 6.5km +/- 1.0km in coastal environments. The territory of male otters in mesotrophic and oligotrophic rivers is approximately 13.2k +/- 5.3km in length with a high degree of variability as territorial males respond quickly to social perturbation (Ó'Néill, 2008). Taking into consideration the separation distance (SAC is located 13.8 km downstream), the scheme is located on the outer territorial ranges for the species associated with the SAC and no disturbance displacement effects on QI otter are anticipated in this regard.</p> <p>Otters are considered highly likely to use stretches of the River Triogue for commuting and foraging. The river water quality status of the River Triogue is of "poor status" (<a href="https://gis.epa.ie/EPAMaps/">https://gis.epa.ie/EPAMaps/</a> (Accessed April 2020)). There were no otter holts, natal dens, couches and/or resting places recorded within 150 m of the scheme (150 m maximum disturbance distance threshold advocated by NRA (2006) guidelines) during field surveys. The proposed works are located within and surrounding the urban environs of Portlaoise town and adjacent to a retail park and residential development that comprises a high level of human activity, artificial lighting and movement of vehicular traffic on a daily basis. Indirect effects on QI otter can be ruled out on this basis. As the proposed scheme avoids any form of instream works and is located over 70 m from the nearest watercourse (River Triogue) and approximately over 20 m from the pond at the public park, no potential for significant effects on any other QI species of the SAC is foreseen. Therefore, no potential significant effects in relation to water quality, and disturbance (e.g. noise, artificial lighting and increased human activity) during the construction and operational phase of the scheme (Phase 1) are anticipated on QI species of the River Barrow and River Nore SAC and can be discounted.</p> <p><b>Slieve Bloom Mountains SPA</b></p> <p>The proposed scheme (Phase 1) is located within the maximum foraging range (10 km (SNH, 2016)) for hen harrier associated with the Slieve Bloom Mountains SPA. Hen harrier demonstrates a preference open moorland (upland blanket bog, heath) and scrub for its foraging and breeding requirements (Ruddock et al., 2016). The species will also use rough grassland for foraging. Male hen harriers have a core foraging range of 2km and a maximum foraging range of up to 10 km outwith SPAs and nest sites (SNH, 2016). The habitats of the proposed scheme (Phase 1) consist of broadleaved woodland, ornamental/non-native shrubs, calcareous grassland and recolonising bare ground deemed to be sub-optimal for the species foraging, roosting and breeding requirements. In relation to disturbance distance tolerances for the species, Currie and Elliott (1997) and Petty (1998) suggested a buffer of 500 - 1000m and 500 – 600m respectively for Hen Harriers. Ruddock and Whitfield (2007) reviewed disturbance distances of several bird species including hen harrier. Informed by a review of literature, some empirical evidence and by expert opinion; the authors assign a buffer of 500 – 750m of works should apply to hen harrier during the breeding season to avoid disturbance effects. The proposed scheme is significantly removed from the SPA located 9.2km to the east that no significant disturbance effects (e.g. noise, artificial light and increased human presence) on hen harrier populations are foreseen. Potential significant effects in this regard are deemed to be negligible.</p> <p>No potential significant effects in relation to disturbance (e.g. noise, artificial lighting and increased human activity) during the construction and operational phase are anticipated and potential significant effects on European sites can be discounted.</p>
<b>Habitat or Species Fragmentation</b>	<p>Given an absence of watercourses within the footprint of the proposed works, there are no significant ecological corridors directly connecting any of the European sites identified within the ZoI of the project. Similarly, there were no Annex I habitats or supporting habitat for mobile species such as QIs of the River Barrow and River Nore SAC and SCIs of the Slieve Bloom Mountains SPA. The proposed scheme (Phase 1) is buffered from the SAC and SPA by a network of public road infrastructure, conifer forestry plantations and an intensively managed agricultural landscape. Therefore, there will be no effects posed to European sites within the ZoI of the project in this regard.</p>
<b>Reduction in Species Density</b>	<p>There are no significant ecological corridors that connect Phase 1 of the scheme and European sites within the ZoI of the project. The proposed scheme (Phase 1) is buffered from the SAC and SPA by a network of public road infrastructure, conifer forestry plantations and an intensively managed agricultural landscape. The proposed scheme is located outside the core foraging range (Ruddock and Whitfield (2007); Currie and Elliott (1997) and Petty (1998)) for SCI hen harrier associated with the Slieve Bloom Mountains SPA and outside the territorial ranges (Reid et al., 2013) for QI otter associated with the River Barrow and River Nore SAC. In addition, there were no otter holts, natal dens, couches and resting places within 150 m of the proposed works (NRA, 2006). The proposed</p>

<b>Likely Changes to European Sites</b>	
	works are located within and surrounding the urban environs of Portlaoise town. There will be no reduction in species density within any European site associated with the proposed works.
<b>Changes in Key Indicators of Conservation Value</b>	The River Barrow and River Nore SAC and Slieve Bloom Mountains SPA are located 8.8 km and 9.2 km respectively from the proposed scheme (Phase 1). The SAC and SPA are not considered to be at risk arising from potential significant negative effects based on separation distance from the proposed works and the localised and small-scale nature of the project. Potential for significant effects on the QIs of the River Barrow and River Nore SAC and Slieve Bloom Mountains SPA are considered to be negligible. Consequently, there is no risk posed to the key indicators of conservation value for European sites identified within the ZoI of the project.
<b>Climate Change</b>	Laos County Council has prepared a Walking and Cycling Strategy with the aim of providing sustainable travel patterns within Portlaoise town to achieve objectives set out in the low carbon town project. The proposed works will not result in any greenhouse gas (GHG) emissions to air during the construction or operational phase of the project. The footprint of the proposed works is restricted to habitats that are highly modified (existing pathways) with limited potential for GHG emissions. There will be no requirement for works in peatland habitats that could give rise to carbon emissions or result in carbon sources of GHG emissions. It is not anticipated that the proposed development will have any significant effects on the European sites or their qualifying features with respect to climate change.

#### **5.4.6 Description of any Likely Impacts on the European Site as a Whole in Terms of Interference with Key Relationships that Define the Structure and Function of the Site**

Phase 1 of the scheme will comprise the construction of a cycle track, installation of line marking, ducting and public lighting; and all associated site works (e.g. removal of woodland debris and foliage, adjustments to existing embankment; and preliminary surveys to assess the stability and condition of adjacent woodland trees). The potential for impacts and effects on European sites within the ZoI as identified in the preceding sections can be discounted. Given the nature and localised scale of the scheme (Phase 1), separation distance and location of the proposed works outside the core ranges for QI and SCI mobile species of the River Barrow and River Nore SAC and the Slieve Bloom Mountains SPA, no potential for significant effects associated with deterioration in water quality and disturbance (e.g. noise, artificial lighting and human presence) are anticipated. Consequently, there will be no likely impacts on any European site in terms of interference with key relationships that define the structure and function of a European site.

#### **5.4.7 Indicators of Significance as a Result of the Identification of Effects**

Indicators of significance are provided in Table 5.6 for any effects identified above in terms of loss, fragmentation, disruption, disturbance and changes to key elements of the European sites, such as water quality.

**Table 5.6 Likely Changes to European Sites**

<b>Likely Direct, Indirect or Secondary Effects of the Project on European Sites</b>	
<b>Loss</b>	There will be no loss of habitats within any European site identified within the ZoI as a result of the proposed development. Potential effects with respect to loss of European sites are assessed in Table 5.4 and Table 5.5 under "land take" and "reduction of habitat area".
<b>Fragmentation</b>	There will be no fragmentation of habitats within any European sites identified in the ZoI as a result of Phase 1 of the scheme. Potential effects with respect to fragmentation of European sites are assessed in Table 5.4 and Table 5.5 under and "habitat or species fragmentation".
<b>Disruption</b>	There will be no disruption to the ecological processes within any European sites identified within the ZoI of the project. The proposed works are temporary in duration and localised in scale. This impact has been assessed further in Table 5.4 and Table 5.5.
<b>Disturbance</b>	There will be no disturbance to key species of any European sites identified within the ZoI of the project. Potential effects with respect to disturbance of QIs/SCIs of European sites are assessed in Table 5.4 and Table 5.5 under "Disturbance to Key Species".
<b>Changes to Key Elements of the Site</b>	There will be no changes to key elements of the site with regard to European sites within the ZoI. Potential effects with respect to changes to key elements of European sites are assessed in Table 5.4 and Table 5.5 under and "Changes in Key Indicators of Conservation Value".

## 5.5 In-combination Effects

### 5.5.1 Other Plans and Projects

In adherence with Article 6(3) of the Habitats Directive, the proposed works were considered in combination with other plans and projects in the area that could result in cumulative effects on European sites.

#### 5.5.1.1 Plans

In the assessment for in-combination effects the following strategic plans was considered as part of this process:

- Laois County Development Plan 2017-2023
- Portlaoise Local Area Plan 2018-2024

No in-combination/cumulative effects are predicted in relation to Laois County Development Plan 2017-2023 as the plan has been subject to Appropriate Assessment (AA). The plan contains natural heritage policies (NH1 to NH36) and environment/biodiversity policies (BIO1, BIO2 and BIO3) and objectives relating to green infrastructure, designated and non-designated sites and the protection of European sites with reference to Policy NH8 and NH9 in particular. Policy NHP2 of Portlaoise Local Area Plan 2018-2024 aims to "*Develop a greenway/blueway walking and cycling route along the River Triogue*". Under Objective NHO6 of the plan, it is an objective of the Council to "*open up visual and physical access via the River Triogue from People's Park as a continuous pedestrian and cycle link through the town centre, and potentially through the Convent Lands having regard to ecological considerations including protected species and habitats*". A Natura Impact Assessment report was prepared for Portlaoise Local Area Plan 2018-2024. The policies and objectives of the plan have been subject to Appropriate Assessment and affords protection to European sites against specific policies and objectives that could otherwise result in likely significant effects. Potential In-combination/cumulative effects are not anticipated.

#### 5.5.1.2 Projects

A search was conducted in April 2020 of planning applications within the vicinity of the proposed development site on Laois County Council Planning Enquiry System<sup>9</sup> and the National Planning Application Map Viewer<sup>10</sup>. A planning search of granted and pending planning applications made within the vicinity of the Proposed Project within the last five years (duration of a permission generally set out in the conditions to the permission, often limited to 5 years) was completed. Withdrawn, incomplete and refused planning applications are not included. The relevant planning applications reviewed are presented in Table 5.7.

**Table 5.7 Planning Application Search**

Planning Reference Number	Development Address	Summary Development Description	Application Status /Outcome	Grant Date /Decision Date
1631	Units 5 & 6 Portlaoise Retail Park, New Road, Portlaoise, Co. Laois.	Amalgamate Units 5 and 6 at Portlaoise Retail Park, to provide a single retail warehouse of 2395 m <sup>2</sup> , including associated minor internal works to remove internal partition walls at Units 5 & 6 Portlaoise Retail Park, New Road, Portlaoise, Co. Laois. The subject site is located to the north of the New Road (Portlaoise Orbital Route) and to the east of Timahoe Road.	Conditional	04/04/2016
17233	Portlaoise Retail Park, New Road, Portlaoise, Co. Laois	Construct a standalone café/restaurant unit with an overall height of 5.02m and a gross floor area of 232 sq.m, to be located within the central section of the car park of Portlaoise Retail Park. The proposal includes signage for the unit, associated outdoor seating area, bin store, landscaping and all associated site works on the 0.064 ha site.	Conditional	20/10/2017
18478	Lismard Business Park, Timahoe Road, Portlaoise.	Erect a 799.3 sq m single storey Kidney Dialysis Treatment Centre and connected 49.0sq m open service compound area, building and site signage together with 29 no. car parking spaces.	Conditional	12/11/2018

<sup>9</sup> Available at <https://laois.ie/departments/planning/> [Accessed April 2020].

<sup>10</sup> Available at <https://myplan.ie/national-planning-application-map-viewer/> [Accessed April 2020].

Planning Reference Number	Development Address	Summary Development Description	Application Status /Outcome	Grant Date /Decision Date
17362	Unit 11, Lismard Business Park, Timahoe Road, Portlaoise, Co. Laois.	(a) change use from existing light industrial to health centre/gymnasium totalling 1728.9 sqm and (b) revisions to rear elevation, together with all associated site and development works	Conditional	25/9/2017
16273	Timahoe Road, Portlaoise, Co. Laois.	Retain the following: (a) single storey lean-to extension to building and sub-division of building into 2 no. commercial units; (b) first floor offices and canteen; (c) canopy over service area; (d) 2.0m high boundary wall; (e) 2 no. steel storage containers; (f) alteration to front façade; (g) signage; (h) carwash facility; (I) entrance; (j) change of site boundaries and all associated site works	Conditional	31/8/2016
19568	Unit 1, Lismard Business Park, New Road, Portlaoise	Change use from a general warehouse to a warehouse with ancillary trade counters (for the sale of building related products principally to trade) and external amendments to the property including: additional car parking spaces towards the rear of the building. On the south east elevation: fill in existing goods ramp and existing good-in door and construct two new ramps to service a new customer entrance to the trade counters and a new good entrance. On the north east of the building include security bollards and mark out a hatched pedestrian route. On the south west elevation include an area for mechanical plant. On the north west elevation, cladding of either side of the door and insert new doors. The proposal includes all associated works to facilitate the development	Conditional	14/1/2020
2050	Unit 1, Lismard Business Park, New Road, Portlaoise	Erect signage relating to the use of the development granted under 19/568 including downlighters on the two largest signs. Condition 6 of 19/568 requires planning permission for all new signage	Decision made	Decision due date: 26/3/2020
17521	No. 2 Rose Cottage, New Road, Portlaoise	Retain existing domestic garage.	Conditional	15/1/2018
151	Aghnaharna Drive, Summerhill, Portlaoise, Co. Laois.	Construct 5 no. detached two storey dwelling houses in place of 4 detached two storey houses previously granted under planning permission reference no. 99/1404 (Grounding permission) and planning permission reference no. 06/1640 and will comprise of: 1 no. house type 408 and 4 no. house type 405. Permission is also sought for alterations to the layout of this section of the overall development. Permission is also sought for all ancillary site development works	Conditional	13/7/2015
18450	Aghnaharna, Portlaoise, Co. Laois	Remove existing foundation pads for a previously permitted apartment block and the provision of 79 no. two-storey terraced, semi-detached and detached dwellings (19 no. 4 Bedroom house and 60 no. 3 bedroom houses ); a total of 158 no. new parking spaces; the creation and landscaping of a vehicular entrance from the Portlaoise Southern Circular Road to Aghnaharna Drive; the provision of a pedestrian access located off the Portlaoise Southern Circular Road at the south-eastern corner of the site; hard and soft landscaping; boundary treatments; sub-station; solar panels; and all associated site development works above and below ground	Conditional	7/3/2019
19217	Aghnaharna, Portlaoise, Co. Laois	Amend house no.53 (134.6 sq m) in the permitted 79 No. unit residential scheme as granted planning permission under Reg. Ref. 18/450 and comprises a single storey extension to the rear of the property measuring 28.1 sq m; amendments to the door and window arrangements on the 4 No. facades; internal changes to the layout of the permitted dwelling; and all associated works	Conditional	5/7/2019

Planning Reference Number	Development Address	Summary Development Description	Application Status /Outcome	Grant Date /Decision Date
19690	The Drive, Mount Stewart, Portlaoise	Consist of amendments to the previously approved development permitted under reg ref 18/450 to omit a pair of semi-detached 3 bed two storey houses on site no's 1 and 2 The Drive, Mount Stewart and replaced with a new 4 bed two storey detached house type F3 and including all associated site development works.	Conditional	24/3/2020

Other similar Blueway green infrastructure projects such as the Barrow Navigation (Grand Canal - Barrow Line) and (River Barrow) (PI Ref: 1737 and ABP Ref: PL01.301245) was considered in this assessment. The project comprises a multi-use shared leisure route (Blueway), approximately 115 kilometres (KM) in length, on the existing navigation towpath, to include tailored surface finishes, information directional, and safety signage, and all other associated ancillary works. Approximately 16km of the route is located in Co. Laois. The project was originally granted planning consent by the relevant local authorities (PI Ref: 1737) but subsequently refused planning permission by An Bord Pleanála (ABP Ref: PL01.301245) on appeal in April 2019.

The planning search in Table 5.7 includes a number of small-scale projects such as internal works and construction of retail units, alterations and modifications to existing commercial units; and amendments and construction of residential developments and dwelling houses within the vicinity of the study area. The works outlined above are small scale in nature and typical of an urban environment in which the proposed works are situated. According to landuse zoning (Laois County Development Plan 2017-2023) for Portlaoise town, much of the surrounding area of the scheme is zoned for 'General Business (C1.1 commercial, retail)' and 'Community, Educational and Institutional (S5 mixed/general community services/facilities uses)' and this is reflected in the planning applications presented in Table 5.7. Similarly, no in-combination effects are foreseen with regard to Phase 2 and 3 of the scheme given that both phases will be subject to Appropriate Assessment. Taking into account the localised nature and temporary duration of the scheme under consideration, no potential for significant effects on European sites as a result of the scheme (Phase 1) either alone or in-combination with other permitted or proposed projects in the area is anticipated. In view of best scientific knowledge and on the basis of objective information, the project either individually or in combination with other plans or projects, is not likely to have significant effects on European sites.

## Section 6 AA Screening Conclusion

This stage 1 Screening for AA to install a cycle track, line marking, ducting and public lighting; and all associated site works (e.g. removal of woodland debris and foliage, adjustments to existing embankment; and preliminary surveys to assess the stability and condition of adjacent woodland trees) as part of Phase 1 of the proposed cycleway scheme (starting at the South Circular Road and ending in the "Peoples Public Park (Páirc an Phobail)") at Portlaoise, has demonstrated that Phase 1 of the scheme will not have any likely significant effects on any European site.

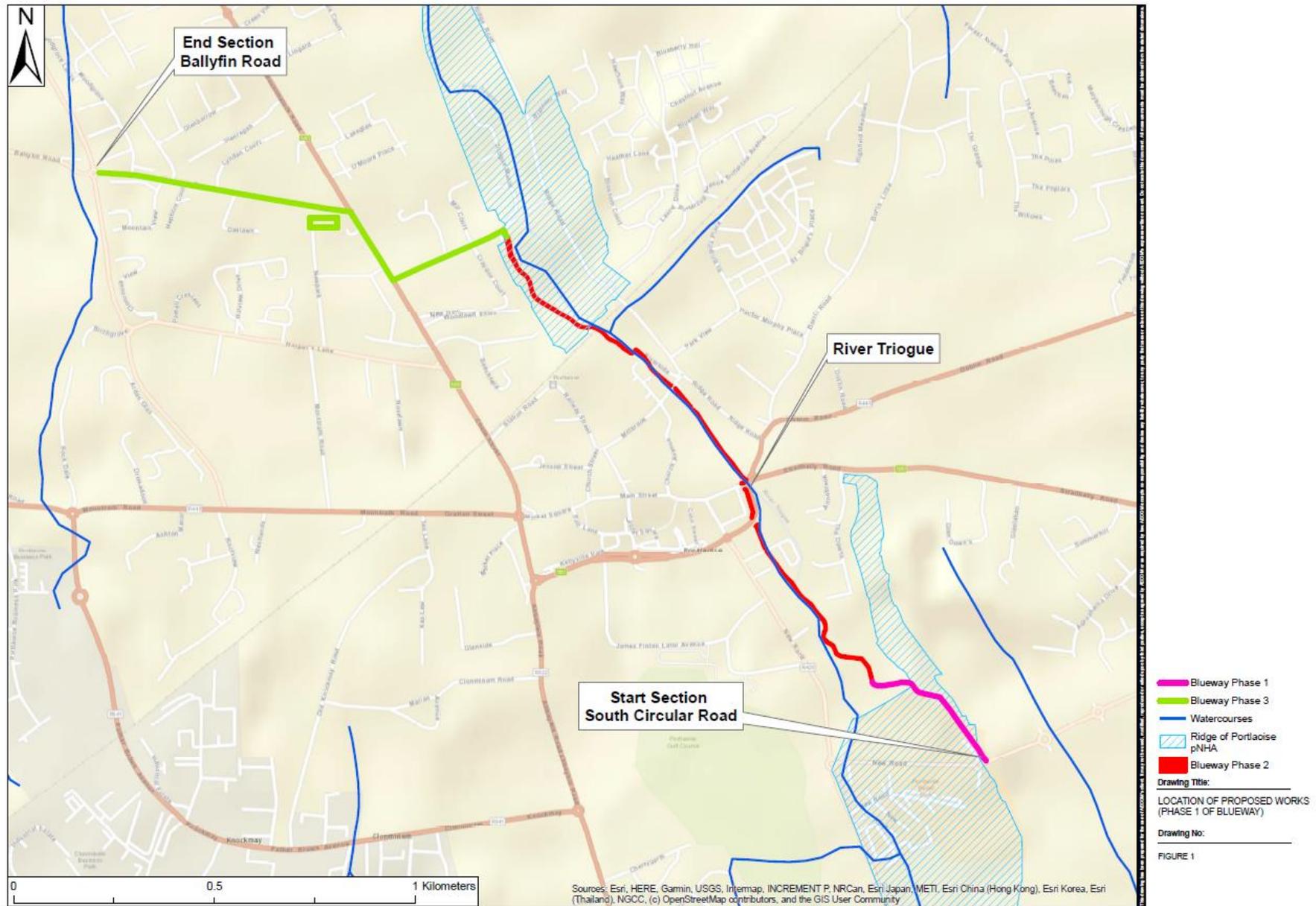
The AA screening process has considered potential effects which may arise during the construction and operational phases as a result of the implementation of the project on European sites. Through an assessment of the pathways for effects and an evaluation of the project characteristics, there is no likelihood of significant effects on the qualifying interests, special conservation interest or the conservation objectives of any designated European site. In view of best scientific knowledge and on the basis of objective information, it is concluded that Phase 1 of the scheme, whether individually or in combination with other plans or projects, beyond reasonable scientific doubt will not have significant effects on European sites identified during the AA Screening process. There is therefore no requirement to proceed to Stage 2, Appropriate Assessment. In summary, there is no potential for significant effect as a result of the proposed works on the conservation objectives or overall integrity of the River Barrow and River Nore SAC and the Slieve Bloom Mountains SPA or any European site.

## References

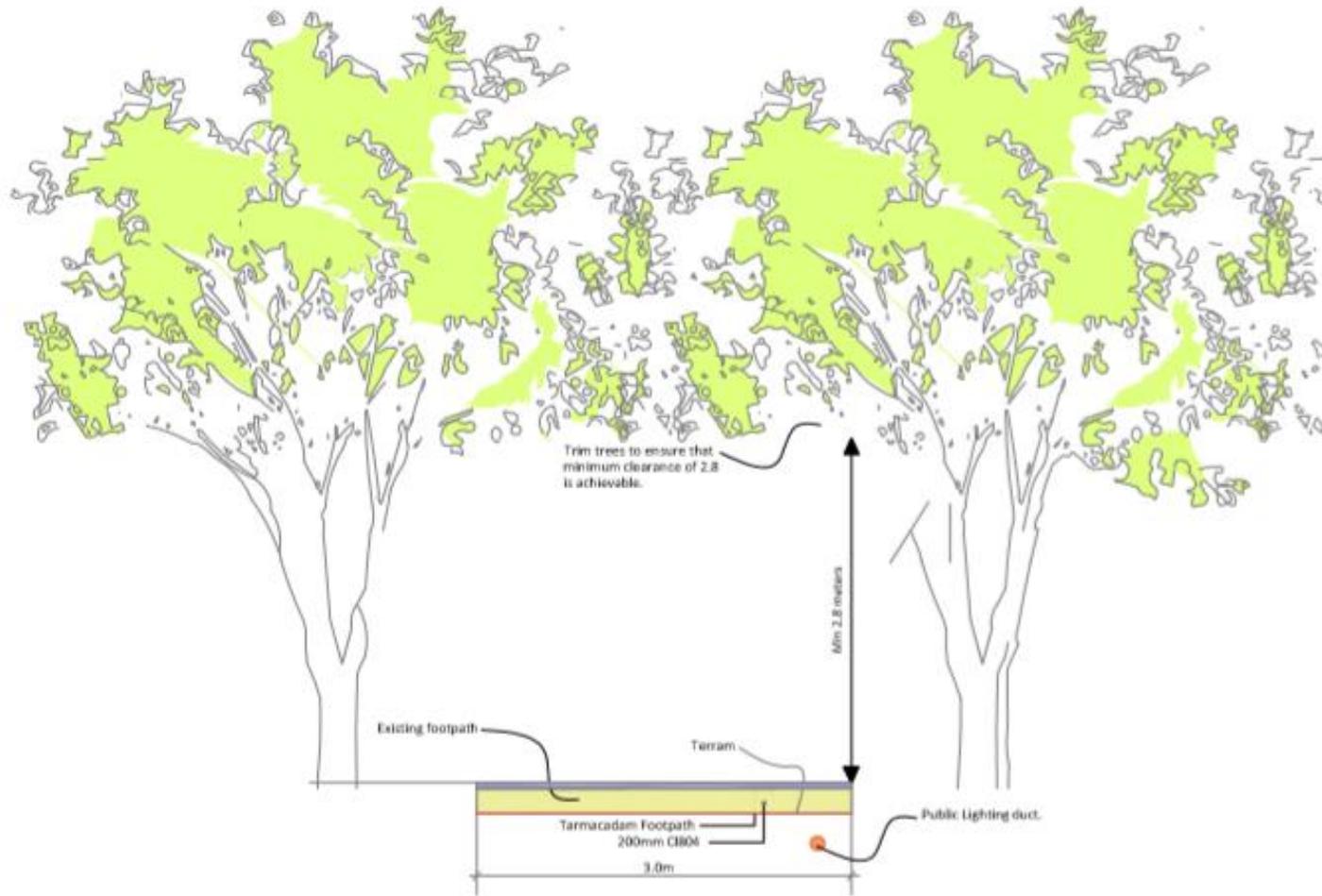
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## **Appendix 1: Map of Triogue Blueway**



## Appendix 2: Drawing (Section B-B Construction Build Up of the Track)



**Section B-B.**  
**New combined cycleway and footpath**

## Appendix 3 Plates



**Plate 1:** The proposed scheme follows an existing track surrounded by habitats comprising calcareous grassland (GS1), recolonising bare ground (ED3) and scrub (WS1).



**Plate 2:** Phase 1 of the scheme follows an existing laneway in an area of mixed broadleaved woodland (WD1) comprising mature beech and scots pine. It is proposed to remove the windblown trees as part of the proposed works.



**Plate 3: The scheme follows an existing path near the public park comprising semi-mature broadleaved trees. There will be a requirement to remove some of the trees to facilitate widening of the cycle track.**

# **Appendix 4 NPWS Site Synopsis River Barrow and River Nore SAC and Slieve Bloom Mountains SPA**

**Site Name: River Barrow and River Nore SAC**

**Site Code: 002162**

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. The site passes through eight counties – Offaly, Kildare, Laois, Carlow, Kilkenny, Tipperary, Wexford and Waterford. Major towns along the edge of the site include Mountmellick, Portarlinton, Monasterevin, Stradbally, Athy, Carlow, Leighlinbridge, Graiguenamanagh, New Ross, Inistioge, Thomastown, Callan, Bennettsbridge, Kilkenny and Durrow. The larger of the many tributaries include the Lerr, Fushoge, Mountain, Aughavaud, Owenass, Boherbaun and Stradbally Rivers of the Barrow, and the Delour, Dinin, Erkina, Owveg, Munster, Arrigle and King’s Rivers on the Nore.

Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains before passing through a band of Carboniferous shales and sandstones. The Nore, for a large part of its course, traverses limestone plains and then Old Red Sandstone for a short stretch below Thomastown. Before joining the Barrow it runs over intrusive rocks poor in silica. The upper reaches of the Barrow also run through limestone. The middle reaches and many of the eastern tributaries, sourced in the Blackstairs Mountains, run through Leinster Granite. The southern end, like the Nore runs over intrusive rocks poor in silica. Waterford Harbour is a deep valley excavated by glacial floodwaters when the sea level was lower than today. The coast shelves quite rapidly along much of the shore.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (\* = priority; numbers in brackets are Natura 2000 codes):

- [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*)

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. Typical species seen include Almond Willow (*Salix triandra*), White Willow (*S. alba*), Rusty Willow (*S. cinerea* subsp. *oleifolia*), Crack Willow (*S. fragilis*) and Osier (*S. viminalis*), along with Iris (*Iris pseudacorus*), Hemlock Water-dropwort (*Oenanthe crocata*), Wild Angelica (*Angelica sylvestris*), Thin-spiked Wood-sedge (*Carex strigosa*), Pendulous Sedge (*C. pendula*), Meadowsweet (*Filipendula ulmaria*), Common Valerian (*Valeriana officinalis*) and the Red Data Book species Nettle-leaved Bellflower (*Campanula trachelium*).

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. These hard water springs are characterised by lime encrustations, often associated with small waterfalls. A rich bryophyte flora is typical of the habitat and two diagnostic species, *Palustriella commutata* and *Eucladium verticillatum*, have been recorded.

The best examples of old oak woodlands are seen in the ancient Park Hill woodland in the estate at Abbeyleix; at Kyleadohir, on the Delour, Forest Wood House, Kylecorragh and Brownstown Woods on the Nore; and at Cloghristic Wood, Drummond Wood and Borris Demesne on the Barrow, though other patches occur throughout the site. Abbeyleix Woods is a large tract of mixed deciduous woodland which is one of the only remaining true ancient woodlands in Ireland. Historical records show that Park Hill has been continuously wooded since the 16<sup>th</sup> century and has the most complete written record of any woodland in the country. It supports a variety of woodland habitats and an exceptional diversity of species including 22 native trees, 44 bryophytes and 92 lichens. It also contains eight indicator species of ancient woodlands. Park Hill is also the site of two rare plants, Nettle-leaved

Bellflower and the moss *Leucodon sciuroides*. The rare Myxomycete fungus, *Licea minima* has been recorded from woodland at Abbeyleix.

Oak woodland covers parts of the valley side south of Woodstock and is well developed at Brownsford where the Nore takes several sharp bends. The steep valley side is covered by oak (*Quercus* spp.), Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*) and Downy Birch (*Betula pubescens*), with some Beech (*Fagus sylvatica*) and Ash (*Fraxinus excelsior*). All the trees are regenerating through a cover of Bramble (*Rubus fruticosus* agg.), Foxglove (*Digitalis purpurea*), Great Wood-rush (*Luzula sylvatica*) and Broad Buckler-fern (*Dryopteris dilatata*).

On the steeply sloping banks of the River Nore, about 5 km west of New Ross, in Co. Kilkenny, Kylecorragh Woods form a prominent feature in the landscape. This is an excellent example of relatively undisturbed, relict oak woodland with a very good tree canopy. The wood is quite damp and there is a rich and varied ground flora. At Brownstown, a small, mature oak dominated woodland occurs on a steep slope. There is younger woodland to the north and east of it. Regeneration throughout is evident. The understorey is similar to the woods at Brownsford. The ground flora of this woodland is developed on acidic, brown earth type soil and comprises a thick carpet of Bilberry (*Vaccinium myrtillus*), Heather (*Calluna vulgaris*), Hard Fern (*Blechnum spicant*), Common Cow-wheat (*Melampyrum pratense*) and Bracken (*Pteridium aquilinum*).

Borris Demesne contains a very good example of a semi-natural broadleaved woodland in very good condition. There is quite a high degree of natural regeneration of oak and Ash through the woodland. At the northern end of the estate oak species predominate. Drummond Wood, also on the Barrow, consists of three blocks of deciduous woods situated on steep slopes above the river. The deciduous trees are mostly oak species. The woods have a well-established understorey of Holly, and the herb layer is varied, with Bramble abundant. The whitebeam *Sorbus devoniensis* has also been recorded here.

Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the floodplain of the river is intact. Characteristic species of the habitat include Meadowsweet, Purple Loosestrife (*Lythrum salicaria*), Marsh Ragwort (*Senecio aquaticus*), Ground Ivy (*Glechoma hederacea*) and Hedge Bindweed (*Calystegia sepium*). Indian Balsam (*Impatiens glandulifera*), an introduced and invasive species, is abundant in places.

Floating river vegetation is well represented in the Barrow and in the many tributaries of the site. In the Barrow the species found include water-starworts (*Callitriche* spp.), Canadian Pondweed (*Elodea canadensis*), Bulbous Rush (*Juncus bulbosus*), water-milfoils (*Myriophyllum* spp.), the pondweed *Potamogeton x nitens*, Broad-leaved Pondweed (*P. natans*), Fennel Pondweed (*P. pectinatus*), Perfoliated Pondweed (*P. perfoliatus*) and crowfoots (*Ranunculus* spp.). The water quality of the Barrow has improved since the vegetation survey was carried out (EPA, 1996).

Dry heath at the site occurs in pockets along the steep valley sides of the rivers especially in the Barrow Valley and along the Barrow tributaries where they occur in the foothills of the Blackstairs Mountains. The dry heath vegetation along the slopes of the river bank consists of Bracken and Gorse (*Ulex europaeus*) with patches of acidic grassland vegetation. Additional typical species include Heath Bedstraw (*Galium saxatile*), Foxglove, Common Sorrel (*Rumex acetosa*) and Creeping Bent (*Agrostis stolonifera*). On the steep slopes above New Ross the Red Data Book species Greater Broomrape (*Orobanche rapum-genistae*) has been recorded. Where rocky outcrops are shown on the maps Bilberry and Great Wood-rush are present. At Ballyhack a small area of dry heath is interspersed with patches of lowland dry grassland. These support a number of clover species, including the legally protected Clustered Clover (*Trifolium glomeratum*) - a species known from only one other site in Ireland. This grassland community is especially well developed on the west side of the mud-capped walls by the road. On the east of the cliffs a group of rock-dwelling species occur, i.e. English Stonecrop (*Sedum anglicum*), Sheep's-bit (*Jasione montana*) and Wild Madder (*Rubia peregrina*). These rocks also support good lichen and moss assemblages with *Ramalina subfarinacea* and *Hedwigia ciliata*.

Dry heath at the site generally grades into wet woodland or wet swamp vegetation lower down the slopes on the river bank. Close to the Blackstairs Mountains, in the foothills associated with the Aughnabriskey, Aughavaud and Mountain Rivers there are small patches of wet heath dominated by Purple Moor-grass (*Molinia caerulea*) with Heather, Tormentil (*Potentilla erecta*), Carnation Sedge (*Carex panicea*) and Bell Heather (*Erica cinerea*).

Salt meadows occur at the southern section of the site in old meadows where the embankment has been breached, along the tidal stretches of in-flowing rivers below Stokestown House, in a narrow band on the channel side of Common Reed (*Phragmites australis*) beds and in narrow fragmented strips along the open shoreline. In the larger areas of salt meadow, notably at Carrickloney, Ballinlaw Ferry and Rochestown on the west bank; Fisherstown, Alderton and Great Island to Dunbrody on the east bank, the Atlantic and Mediterranean sub types are generally intermixed. At the upper edge of the salt meadow in the narrow ecotonal areas bordering the grasslands where there is significant percolation of salt water, the legally protected species Borrer's Saltmarsh-grass (*Puccinellia fasciculata*) and Meadow Barley (*Hordeum secalinum*) are found. The very rare and also legally protected Divided Sedge (*Carex divisa*) is also found. Sea Rush (*Juncus maritimus*) is also present. Other plants recorded and associated with salt meadows include Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Sea Couch (*Elymus pycnanthus*), Spear-leaved Orache (*Atriplex prostrata*), Lesser Sea-spurrey (*Spergularia marina*), Sea Arrowgrass (*Triglochin maritima*) and Sea Plantain (*Plantago maritima*).

Glassworts (*Salicornia* spp.) and other annuals colonising mud and sand are found in the creeks of the saltmarshes and at the seaward edges of them. The habitat also occurs in small amounts on some stretches of the shore free of stones.

The estuary and the other E.U. Habitats Directive Annex I habitats within it form a large component of the site. Extensive areas of intertidal flats, comprised of substrates ranging from fine, silty mud to coarse sand with pebbles/stones are present. Good quality intertidal sand and mudflats have developed on a linear shelf on the western side of Waterford Harbour, extending for over 6 km from north to south between Passage East and Creadaun Head, and in places are over 1 km wide. The sediments are mostly firm sands, though grade into muddy sands towards the upper shore. They have a typical macro-invertebrate fauna, characterised by polychaetes and bivalves. Common species include *Arenicola marina*, *Nephtys hombergii*, *Scoloplos armiger*, *Lanice conchilega* and *Cerastoderma edule*. An extensive area of honey-comb worm biogenic reef occurs adjacent to Duncannon, Co. Wexford on the eastern shore of the estuary. It is formed by the polychaete worm *Sabellaria alveolata*. This intertidal *Sabellaria alveolata* reef is formed as a sheet of interlocking tubes over a considerable area of exposed bedrock. This polychaete species constructs tubes, composed of aggregated sand grains, in tightly packed masses with a distinctive honeycomb-like appearance. These can be up to 25cm proud of the substrate and form hummocks, sheets or more massive formations. A range of species are reported from these reefs including: *Enteromorpha* sp.; *Ulva* sp.; *Fucus vesiculosus*; *Fucus serratus*; *Polysiphonia* sp.; *Chondrus crispus*; *Palmaria palmate*; *Coralinus officinalis*; *Nemertea* sp.; *Actinia equine*; *Patella vulgate*; *Littorina littorea*; *Littorina obtusata* and *Mytilus edulis*.

The western shore of the harbour is generally stony and backed by low cliffs of glacial drift. At Woodstown there is a sandy beach, now much influenced by recreation pressure and erosion. Behind it a lagoonal marsh has been impounded which runs westwards from Gaultiere Lodge along the course of a slow stream. An extensive reedbed occurs here. At the edges is a tall fen dominated by sedges (*Carex* spp.), Meadowsweet, willowherbs (*Epilobium* spp.) and rushes (*Juncus* spp.). Wet woodland also occurs.

The dunes which fringe the strand at Duncannon are dominated by Marram (*Ammophila arenaria*) towards the sea. Other species present include Wild Clary/Sage (*Salvia verbenaca*), a rare Red Data Book species. The rocks around Duncannon ford have a rich flora of seaweeds typical of a moderately exposed shore and the cliffs themselves support a number of coastal species on ledges, including Thrift, Rock Samphire (*Crithmum maritimum*) and Buck's-horn Plantain (*Plantago coronopus*).

Other habitats which occur throughout the site include wet grassland, marsh, reedswamp, improved grassland, arable land, quarries, coniferous plantations, deciduous woodland, scrub and ponds.

Seventeen Red Data Book plant species have been recorded within the site, most in the recent past. These are Killarney Fern (*Trichomanes speciosum*), Divided Sedge, Clustered Clover, Basil Thyme (*Acinos arvensis*), Red Hemp-nettle (*Galeopsis angustifolia*), Borrer's Saltmarsh-grass, Meadow Barley, Opposite-leaved Pondweed (*Groenlandia densa*), Meadow Saffron/Autumn Crocus (*Colchicum autumnale*), Wild Clary/Sage, Nettle-leaved Bellflower, Saw-wort (*Serratula tinctoria*), Bird Cherry

(*Prunus padus*), Blue Fleabane (*Erigeron acer*), Fly Orchid (*Ophrys insectifera*), Ivy Broomrape (*Orobanche hederæ*) and Greater Broomrape. Of these, the first nine are protected under the Flora (Protection) Order, 2015. Divided Sedge was thought to be extinct but has been found in a few locations in the site since 1990. In addition plants which do not have a very wide distribution in the country are found in the site including Thin-spiked Wood-sedge, Field Garlic (*Allium oleraceum*) and Summer Snowflake. Six rare lichens, indicators of ancient woodland, are found including *Lobaria laetevirens* and *L. pulmonaria*. The rare moss *Leucodon sciuroides* also occurs.

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 *Margaritifera margaritifera* and *M. m. durrovensis*), White-clawed Crayfish, Salmon, Twaite Shad, three lamprey species – Sea Lamprey, Brook Lamprey and River Lamprey, the tiny whorl snail *Vertigo moulinsiana* and Otter. This is the only site in the world for the hard water form of the Freshwater Pearl Mussel, *M. m. durrovensis*, and one of only a handful of spawning grounds in the country for Twaite Shad. The freshwater stretches of the River Nore main channel is a designated salmonid river. The Barrow/Nore is mainly a grilse fishery though spring salmon fishing is good in the vicinity of Thomastown and Inistioge on the Nore. The upper stretches of the Barrow and Nore, particularly the Owenass River, are very important for spawning.

The site supports many other important animal species. Those which are listed in the Irish Red Data Book include Daubenton's Bat, Badger, Irish Hare and Common Frog. The rare Red Data Book fish species Smelt (*Osmerus eperlanus*) occurs in estuarine stretches of the site. In addition to the Freshwater Pearl Mussel, the site also supports two other freshwater mussel species, *Anodonta anatina* and *A. cygnea*.

Three rare invertebrates have been recorded in alluvial woodland at Murphy's of the River. These are: *Neoascia obliqua* (Order Diptera: Syrphidae), *Tetanocera freyi* (Order Diptera: Sciomyzidae) and *Dictya umbrarum* (Order Diptera: Sciomyzidae). The rare invertebrate, *Mitostoma chrysomelas* (Order Arachnida), occurs in the old oak woodland at Abbeyleix and only two other sites in the country. Two flies (Order Diptera) *Chrysogaster virescens* and *Hybomitra muhlfeldi* also occur at this woodland.

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.

Land use at the site consists mainly of agricultural activities – mostly intensive in nature and principally grazing and silage production. Slurry is spread over much of the area. Arable crops are also grown. The spreading of slurry and fertiliser poses a threat to the water quality of the salmonid river and to the populations of E.U. Habitats Directive Annex II animal species within the site. Many of the woodlands along the rivers belong to old estates and support many non-native species. Little active woodland management occurs. Fishing is a main tourist attraction along stretches of the main rivers and their tributaries and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. There is net fishing in the estuary and a mussel bed also. Other recreational activities such as boating, golfing and walking, particularly along the Barrow towpath, are also popular. There is a golf course on the banks of the Nore at Mount Juliet and GAA pitches on the banks at Inistioge and Thomastown. There are active and disused sand and gravel pits throughout the site. Several industrial developments, which discharge into the river, border the site. New Ross is an important shipping port. Shipping to and from Waterford and Belview ports also passes through the estuary.

The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, over-grazing within the woodland areas, and invasion by non-native species, for example Cherry Laurel (*Prunus laurocerasus*) and Rhododendron (*Rhododendron ponticum*). The water quality of the site remains vulnerable. Good quality water is necessary to maintain the populations of the Annex II animal species listed above. Good quality is dependent on controlling fertilisation of the grasslands, particularly along the Nore. It also requires that sewage be properly treated before discharge. Drainage activities in the catchment can lead to flash floods which can damage the many Annex II species present. Capital and maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such as lamprey and shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein.

Overall, the site is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on 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.

## SITE SYNOPSIS

**SITE NAME: SLIEVE BLOOM MOUNTAINS SPA**

**SITE CODE: 004160**

The Slieve Bloom Mountains SPA is situated on the border between Counties Offaly and Laois, and runs along a north-east/south-west aligned ridge for approximately 25 km. Much of the site is over 200 m in altitude, rising to a maximum height of 527 m at Arderin. The mountains are of Old Red Sandstone, flanked by Silurian rocks. Several important rivers rise within the site, including the Barrow, Delour and Silver.

The site has a near continuous ridge of mountain blanket bog, with wet and dry heaths also well represented. Species present in these habitats include Ling Heather (*Calluna vulgaris*), Crowberry (*Empetrum nigrum*), Bilberry (*Vaccinium myrtillus*), Cottongrasses (*Eriophorum* spp.), Deergrass (*Scirpus cespitosus*) and Bog Asphodel (*Narthecium ossifragum*). Much of the slopes are afforested, and overall coniferous plantations account for c. 60% of the site. The forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. The principal tree species present are Sitka Spruce (*Picea sitchensis*) and Lodgepole Pine (*Pinus contorta*). The remainder of the site is mostly rough grassland that is used for hill farming. This varies in composition and includes some wet areas with rushes (*Juncus* spp.) and some areas subject to scrub encroachment. Some stands of deciduous woodland also occur, especially within the river valleys.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier.

This SPA is one of the strongholds for Hen Harrier in the country and, indeed, is the most easterly regular population. A survey in 2005 recorded eight pairs, whereas eleven pairs had been recorded in the 1998-2000 period. The numbers recorded in 2005 represent c. 3.7% of the all-Ireland total. The mix of forestry and open areas provides optimum habitat conditions for this rare bird, which is listed on Annex I of the E.U. Birds Directive. The early stages of new and second-rotation conifer plantations are the most frequently used nesting sites, though some pairs may still nest in tall heather of unplanted bogs and heath. Hen Harriers will forage up to c. 5 km from the nest site, utilising open bog and moorland, young conifer plantations and hill farmland that is not too rank. Birds will often forage in openings and gaps within forests. In Ireland, small birds and small mammals appear to be the most frequently taken prey.

The site is also a traditional site for a breeding pair of Peregrine. Several pairs of Merlin are known to breed within the site but further survey is required to determine the exact status of this small falcon. Red Grouse is found on many of the unplanted areas of bog and heath – this is a species that has declined in Ireland and is now Red-listed.

The Slieve Bloom Mountains SPA is of ornithological importance because it provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top sites in the country for the species. The presence of three species, Hen Harrier, Merlin and Peregrine, which are listed on Annex I of the E.U. Birds Directive is of note. The Slieve Bloom Mountains is a Ramsar Convention site and a Biogenetic Reserve. Part of the Slieve Bloom Mountains SPA is a Statutory Nature Reserve.