



**Russell Environmental and  
Sustainability Services Limited**

# PART 1 STAGE 1 SCREENING FOR APPROPRIATE ASSESSMENT

STUDENT ACCOMMODATION, CORK ROAD,  
WATERFORD

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## 1.0 Introduction

This Stage 1 Screening report relates to the planning application for the proposed Student Accommodation Development at Cork Road Waterford by Noel Frisby Construction Ltd. The screening report has been completed as there are a number of European Sites within a 15km radius of the development site.

### 1.1 Background and Legislative Context

#### 1.1.1 EU Habitats Directive

Article 6(1) and article 6(2) of Council Directive 92/43/EEC of 21<sup>st</sup> May 1992 on the conservation of natural habitats and of wild fauna and flora aims to promote the maintenance of biodiversity. It forms the cornerstone of Europe's nature conservation policy with the Birds Directive and establishes the EU wide Natura 2000 ecological network of protected areas, safeguarded against potentially damaging developments." (EEC, 1992)

Article 6(1) and 6(2) are concerned with Special Areas of Conservation (SAC), whereby Member States are required to establish necessary conservation measures and appropriate statutory measures to ensure the protection of natural habitat types in Annex I and the species in Annex II present on the sites. This includes the avoiding the deterioration of natural habitats as well as the disturbance of any species included in Annex II (EHLG, 2009, p18).

The focus of Appropriate Assessment (AA) is targeted specifically on Natura 2000 sites and their conservation objectives. Articles 6(3) and 6(4) of the Habitats Directive (including the Birds Directive) place strict legal obligations on Member States, with the outcomes of AA fundamentally affecting the decisions that may lawfully be made. Articles 6(3) and 6(4) also detail the procedures to be completed when a development is likely to or has affected a Natura 2000 site. There is a Special Protection Area (SPAs) and Special Areas of Conservation (SACs) within 15km of the site. As both SAC and SPA sites are European sites and thus Natura 2000 sites, the likely effect of the proposed housing development requires screening for appropriate assessment (EHLG, 2009, p18).

Articles 6(3) and 6(4) are detailed as follows:

*6(3) – 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. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*

*6(4) – If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must*

*nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission to other imperative reasons of overriding public interest (EHLG, 2009, p18).*

### **1.1.2 Stage 1 Screening for Appropriate Assessment**

There are four stages involved in completing an AA. Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1. Screening for Appropriate Assessment Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- i) whether a plan or project is directly connected to or necessary for the management of the site.
- ii) whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA) (EHLG, 2009, p18).

Annex IV species are covered under the EU Habitats Directive Article 12.

Article 12 of the Habitats Directive reads as follows:

*1. Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range, prohibiting: (a) all forms of deliberate capture or killing of specimens of these species in the wild; (b) deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration; (c) deliberate destruction or taking of eggs from the wild; (d) deterioration or destruction of breeding sites or resting places.*

*2. For these species, Member States shall prohibit the keeping, transport and sale or exchange, and offering for sale or exchange, of specimens taken from the wild, except for those taken legally before this Directive is implemented.*

*3. The prohibition referred to in paragraph 1 (a) and (b) and paragraph 2 shall apply to all stages of life of the animals to which this Article applies.*

*4. Member States shall establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a). In the light of the information*

*gathered, Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned. (EEC, 1992).*

## **1.2 Author of the Report**

Russell Environmental and Sustainability Services Limited (RESS Ltd.) was contracted by Noel Frisby Construction Ltd. to complete a Stage 1 Screening for Appropriate Assessment in relation to the proposed Student Accommodation Development on the Cork Road, Waterford.

## **2.0 Site Description**

### **2.1 Development Description and Details of the Planning Application**

Permission is being sought for the following Large-Scale Residential Development (LRD), comprising of the construction of a student accommodation development which will consist of the construction of 85 no. student accommodation apartments (ranging in size from 5-bed apartments to 8-bed apartments) comprising a total of 582 no. bed spaces in 4 no. blocks ranging in height from 4-6 storeys, with student amenity facilities including 1 no. retail/cafe unit, communal areas, laundry room, reception, student and staff facilities, storage, ESB substation/switch room, bin and general stores and plant rooms. The development also includes the provision of landscaping and amenity areas including a central courtyard space, public realm/plaza (fronting on to the Cork Road), the provision of a set down area, 1 no. vehicular access point onto Ballybeg Drive, car and bicycle parking, footpaths, signage, boundary treatment, pedestrian and cycle improvements to Lacken Road (including a pedestrian crossing) and all ancillary development including pedestrian/cyclist facilities, lighting, drainage (including 2 no. bio retention ponds), landscaping, boundary treatments and plant including PV solar at roof level.

## 2.2 Site Location and Topography

The site is situated on the R680 Cork Road, Waterford. The site is located at Longitude: -7.1312663 and Latitude: 52.2446197 (EPA, 2023). Figure 1 shows the location of the site. The site has varying levels, ranging from 4m at its lowest point and 9m at its highest point (OSI, 2023).

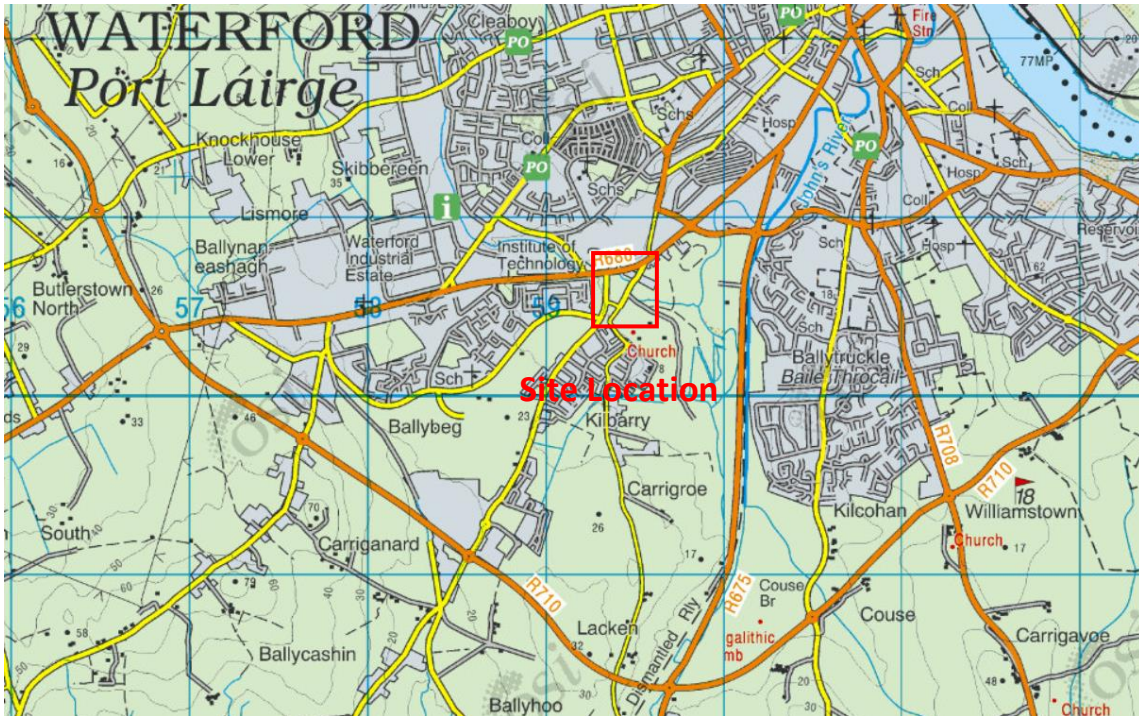


Figure 1 Site location (OSI, 2023)

## 2.3 Geology and Soils

There is one type of bedrock on the site, which is from the Palaeozoic, middle-upper Ordovician period comprised of greywacke, Ordovician slate, sandstone, and conglomerate (EPA, 2023; GSI, 2023). There are 3 types of soils on the site, 2 of which are well drained shallow brown earths and podzolics comprised of fine loamy drift from the Clonroche Series and the third is more poorly drained lake alluvium from the Gurteen Series as shown in Figure 2 (Teagasc, 2023).

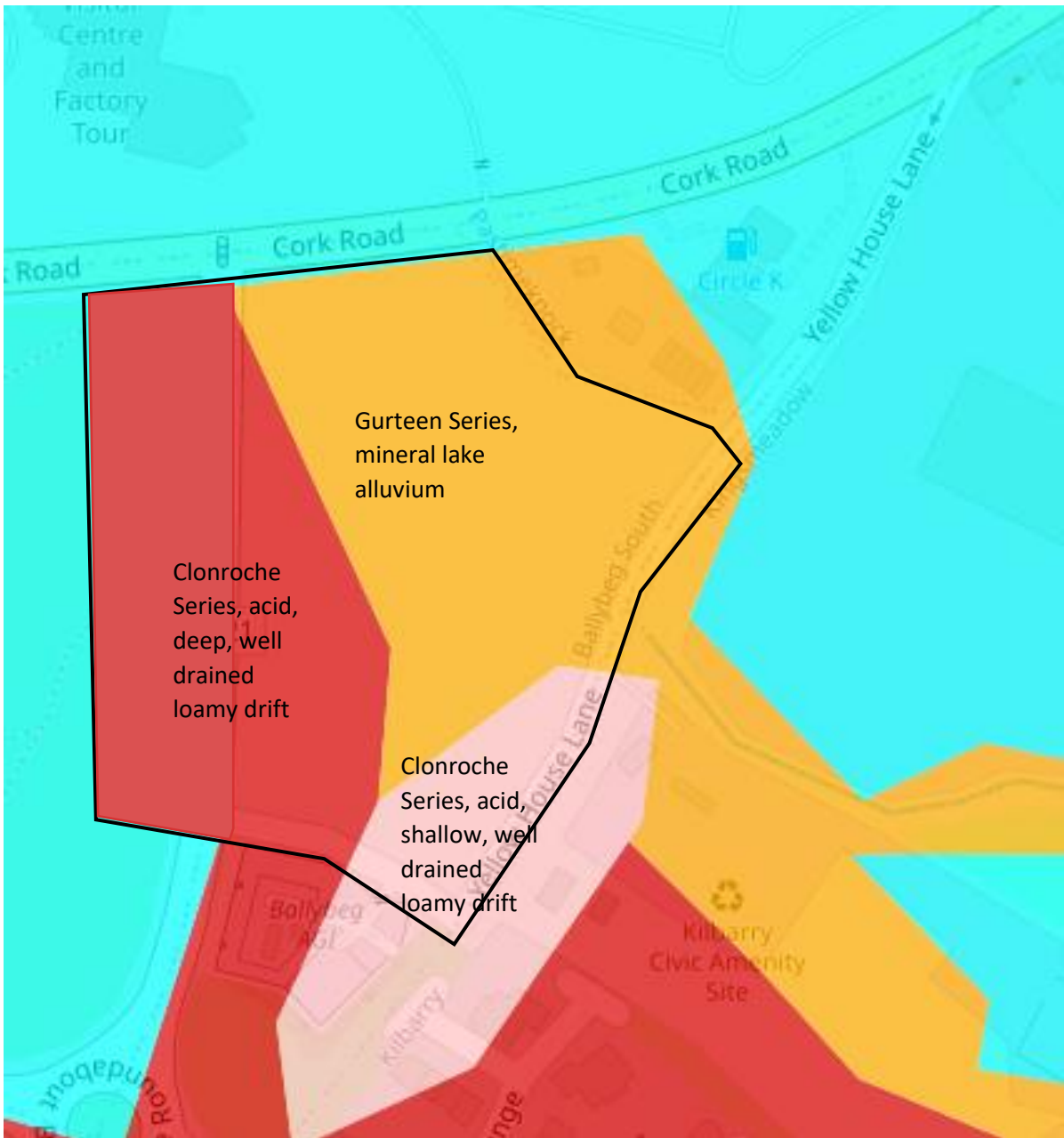


Figure 2 Soil types (EPA, 2023; Teagasc, 2023)

## 2.4 Hydrology

The John's River flows through the site and discharges into the River Suir approximately 3.4km down river (following the John's River). This section of River Suir is designated as the Lower River Suir SAC (Figures 3 and 4). The Lower River Suir SAC flows into the River Barrow and River Nore SAC.



Figure 3 Hydrology in the site (EPA, 2023).

## 2.5 Desk Based Study

A desk-based study was undertaken to determine the proximity of any designated sites within the vicinity of the proposed development site.

The EPA provides the AA Geotool that is a database of the protected sites and associated flow network for water courses within Ireland. The details of the European Sites within a 15km radius are detailed in Table 1 and Figure 4. The radius of 15km is as per the DEHLG Guidance (2010).

The NBDC provides a national database of biological records from Ireland. The database was consulted with regard to species distribution within the vicinity of the site.

The National Parks and Wildlife website was consulted to review the Site Synopsis and Conservation Objectives for the identified European Sites.

Location	Distance	Direction	Potential risk
Lower River Suir SAC	2.31km	Northeast	Yes, hydrological connectivity with the proposed development site.
River Barrow and River Nore SAC	9.09km	Northeast	Potential as hydrologically connected down river from the proposed development site
Tramore Dunes and Back strand SAC	7.77km	South	No hydrological connectivity and sufficient geographical separation, so no potential pathway for impacts
Tramore Back strand SPA	7.77 km	South	No hydrological connectivity and sufficient geographical separation,



			so no potential pathway for impacts
Mid-Waterford Coast SPA	11.49km	Southwest	No hydrological connectivity and sufficient geographical separation, so no potential pathway for impacts

Table 1 European Sites within a 15km radius of the development site (EPA, 2023)

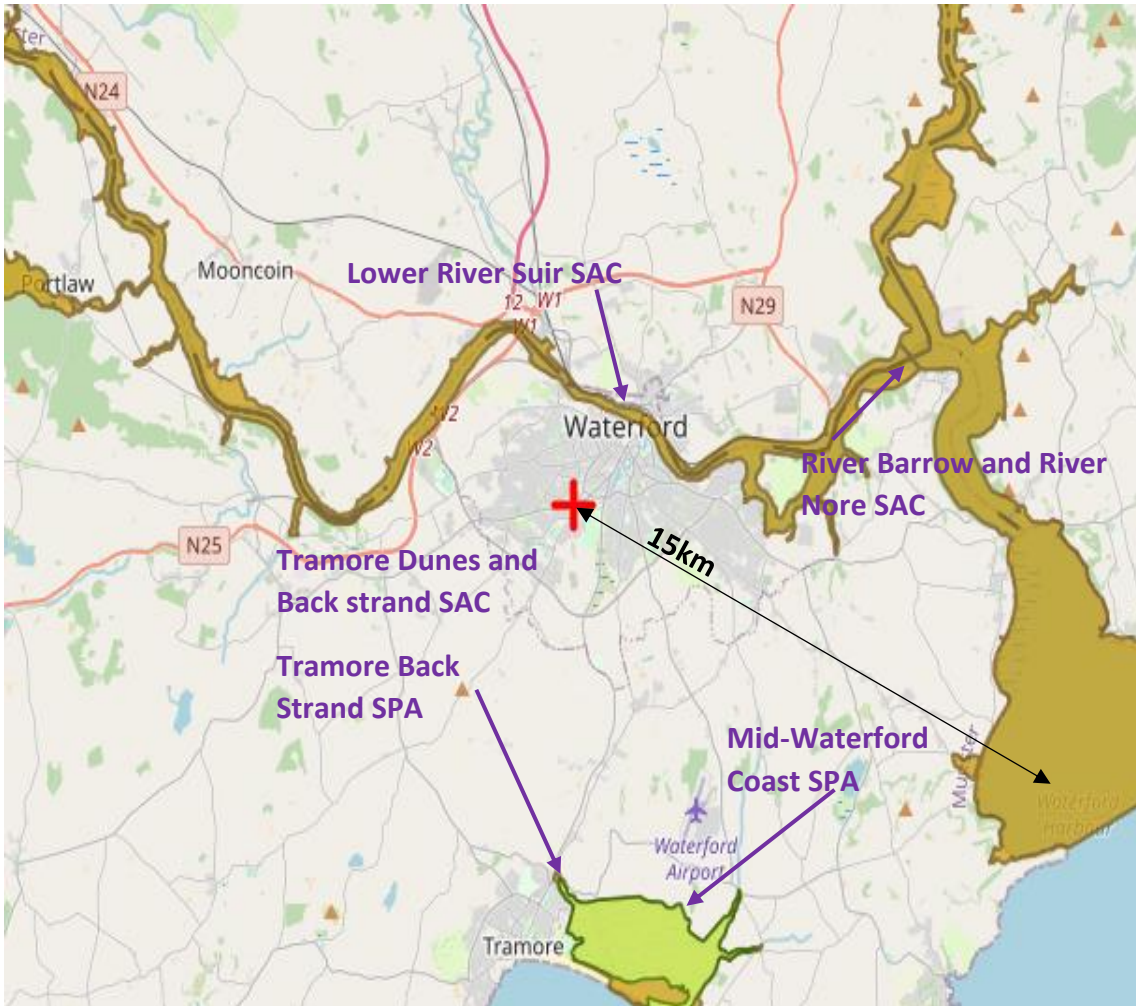


Figure 4 Location of the development site in relation to European Sites in a 15km radius (EPA, 2023)

## 2.6 Field Survey

### Flora

The vegetation survey that took place was based on the Best Practice Guidance for Habitat Surveying and Mapping (Smith *et al.*, 2011) whereby the habitats are classified according to Fossitt (2000). In addition, the habitats mapped were compared with the Qualifying Interests (QI) listed for the European Sites in a 15km radius.

Both the common name and the Latin names have been provided for the main plant species identified. The Latin names are in italics. The letter and number codes i.e. GA1 for *Improved grassland* are the standard codes for habitat

classification in Ireland (Fossitt, 2000). The vegetation was also mapped to the habitats listed on Annex I/II of the E.U. Habitats Directive

This report presents the results of site visits by ecologists from RESS Ltd. on 1<sup>st</sup> October 2022, 22<sup>nd</sup> February 2023, 8<sup>th</sup> of April 2023 and the 22<sup>nd</sup> of June 2023 when the site was surveyed. The conditions were dry and there were no constraints to the survey.

Within the site, there were nine habitats identified and are illustrated in Appendix i (Fossitt, 2000). These are as follows:

#### *WD5 Scattered Trees*

There are approximately eight trees that have either been planted or self-seeded on the amenity grassland. The species present are:

Holme oak *Quercus ilex*, Goat willow *Salix caprea* and Field maple *Acer campestre*

#### *WL2 Treeline*

This is adjacent to the Cork Road and appears to be mostly self-seeded as opposed to planted. The treeline does have a number of gaps and is comprised of Ash *Fraxinus excelsior*, Alder *Alnus glutinosa*, Goat willow *Salix caprea*, Hawthorn *Crataegus monogyna* and Sycamore *Acer pseudoplatanus* with Bramble *Rubus fruticosus* agg., Gorse *Ulex europeaus* and Ivy *Hedera helix*.

#### *FW2 Depositing Lowland Stream*

This stream is John's River that discharges into the Lower River Suir SAC. It runs partially within the site boundary and just outside, adjacent to it. The water quality was investigated in more detail, the results of which are discussed in the accompanying Ecological Impact Assessment. The flow of this river, which is more like a stream at this point was moderate on all of the four site visits. The predominant species present at the stream margins are Water-cress *Apium nodiflorum*, Figwort (Water) *Scrophularia auriculata* and Water mint *Mentha aquatic*. The species present on the banks of this habitat are discussed under FS2/WN5 Tall-Herb Swamp/Riparian Woodland Mosaic (Figure 5).

#### *WS1 Scrub*

There is a small section of scrub adjacent to the amenity grassland and also present on the bank of the stream (John's River).

#### *ED2 Spoil and Bare Ground*

This is the habitat that covers the majority of the site and is where spoil has been levelled and colonisation of plants has begun. However, the plant cover is significantly less than 50% and thus falls into this habitat classification. A range of mostly broad-leaved species are present with a number of grass species also colonising. The predominant species present are: Creeping bent *Agrostis*

*stolonifera*, False oat-grass *Arrhenatherum elatus*, Perennial rye grass *Lolium perenne*, Bindweed (Hedge) *Calystegia sepium*, Black medick *Medicago lupulina*, Broadleaf plantain *Plantago major*, Chickweed (Common) *Stellaria media*, Dandelion *Taraxacum officinale*, Dock *Rumex obtusifolius*, Perennial Sowthistle *Sonchus arvensis*, Petty Spurge *Euphorbia peplus*, Common Poppy *Papaver rhoeas*, Ragwort *Jacobaea vulgaris*, Ribwort plantain *Plantago lanceolata*, Silverweed *Potentilla anserine*, Smooth Hawksbeard *Crepis capillaris*, Spear thistle *Cirsium vulgare*, Teasel *Dipsacus fullonum*, Weld *Reseda luteola*, Wild mustard *Sinapsis arvensis*, Willowherb (hoary) *Epilobium parviflorum* and Yarrow *Achillea millefolium* (Figure 5).



Figure 5 Stream to the left with FS2/WN5 Tall-Herb Swamp/Riparian Woodland Mosaic ED2 Spoil and Bare Ground

### *ED3 Recolonising Bare Ground*

The spoil and bare ground grades into more established vegetation, where there has been less disturbance. The species present here are similar to those above with the addition of additional grass species Cocks-foot *Dactylis glomerata*, Annual meadow grass *Poa annua* and Yorkshire Fog *Holcus lanatus*. False oat-grass *Arrhenatherum elatus* is much more prolific in this habitat and is the dominant monocotyledon species. The broad leaved species are as above and with the additional species: Birds-foot trefoil *Trifolium repens*, Bramble *Rubus fruticosus* agg., Buddleia *Buddleja davidii*, Cleavers *Galium aparine*, Clover (red) *Trifolium pratense*, Clover (white) *Trifolium repens*, Cow Parsley *Anthriscus sylvestris*, Creeping buttercup *Ranunculus repens*, Narrowleaf Dock *Rumex stenophyllus*, Fat hen *Chenopodium album*, Great Mullein *Verbascum thapsus*, Hawksbit (Rough) *Leontodon hispidus*, Hogweed *Heracleum sphondylium*, Knapweed *Centaurea nigra*, Nettle *Urtica dioica*, Nipplewort *Lapsana communis*, Scentless mayweed *Tripleurospermum inodorum* and Woundwort *Stachys palustris* (Figure 6).



Figure 6 ED2 Spoil and Bare Ground and ED3 Recolonising Bare Ground

### *FS2/WN5 Tall-Herb Swamp/Riparian Woodland Mosaic*

This habitat grades from the *ED3 Recolonising Bare Ground* habitat down the bank of the stream where there are wet woodland species and tall herb species. Common reed *Phragmites australis* is present, but not in sufficient quantities to classify this habitat as FS1 Reed and Large Sedge Swamp. The habitat is more indicative of FS2 Tall-herb Swamp with WN5 Riparian Woodland species also colonising this area. The species present are the aforementioned Common reed *Phragmites australis* together with Figwort (Water) *Scrophularia auriculata*, Bindweed (Hedge) *Calystegia sepium*, Nettle *Urtica dioica*, Yellow Flag (Iris) *Iris pseudacorus* and Pendulous sedge *Carex pendula*. The woodland species are Crack willow *Salix fragalis*, Grey willow *Salix cinerea*, White willow *Salix alba*, Elder *Sambucus nigra*, Bramble *Rubus fruticosus agg.*, Gorse *Ulex europeaus* and Ivy *Hedera helix* with Sycamore *Acer pseudoplatanus*, Hawthorn *Crataegus monogyna* mostly on the opposite bank.

### *GA2 Amenity Grassland*

This habitat is the grass verge that is regularly mown adjacent to the L5021 road. The species present are typical of this habitat with a mixed grass sward of Bents *Agrostis spp.* and Meadow grasses *Poa spp.* as well as Perennial rye-grass *Lolium perenne* and Yorkshire Fog *Holcus lanatus*. The broad-leaved species are Clover (white) *Trifolium repens*, Daisy (Common) *Bellis perennis*, Dandelion *Taraxacum officinale* and Selfheal *Prunella vulgaris*.

### *BL3 Artificial Surfaces*

This habitat relates to the tarmac road and concrete pavements that are included in the red line boundary.

Himalayan honeysuckle *Leycesteria formosa* and Three-cornered leek *Alium Triquetrum* non-native invasive species are also present on the banks of the stream.

However there were no non-native species of Union Concern within the site.

## **Fauna**

The species of birds seen or heard on the site were Blackbird *Turdus merula*, House sparrow *Passer domesticus*, Woodpigeon *Columba palumbus*, Great tit *Parus major*, Blue tit *Cyanistes caeruleus*, Starling *Sturnus vulgaris* and Wren *Troglodytes troglodytes*.

There was no evidence, at the time of surveying, of Otter *Lutra lutra* activity (spraints, resting or breeding sites).

There were no likely locations on the site for summer bat roosts and all potential trees were searched for possible cavities suitable for roosts. Therefore, it was not deemed necessary to complete a dawn or dusk survey. The stream (John's River) and bank side vegetation may be used for foraging.

## 3.0 Identification of Relevant European Sites

### 3.1 Background to European Sites

The Habitats Directive (92/43/EEC) together with the Birds Directive (2009/147/EC) form the cornerstone of Europe's nature conservation policy. It is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection. All in all, the Habitats Directive protects over 1,000 animal and plant species and over 200 "habitat types" (e.g., special types of forests, meadows, wetlands, etc.), which are of European importance.

With the introduction of the EU Habitats Directive and Birds Directive which were transposed into Irish law as S.I. No. 94/1997 European Communities (Birds and Natural Habitats) Regulations 1997, the European Union formally recognised the significance of protecting rare and endangered species of flora and fauna, and importantly, their habitats.

The 1997 Regulations and their amendments were subsequently revised and consolidated in S.I. No. 477/2011- European Communities (Birds and Natural Habitats) Regulations 2011. This legislation requires the establishment and conservation of a network of sites of particular conservation value that are to be termed 'European Sites'.

Based on the desk-based study there are five designated sites located within a 15km radius of the site as detailed in Table 1 and Figure 4. However, only the Lower River Suir and SAC River Barrow and River Nore SAC, have been identified as having a potential impact due to the proximity with the site.

### 3.2 Assessment of Likely Significant Effects on the European Sites

There are potential direct threats to the European Sites - Lower River Suir SAC and River Barrow and River Nore SAC as these European Sites are hydrologically connected to the site via the John's River.

Table 2 details the likely direct and indirect impacts of the proposed development on the European Sites identified in Table 1 (Lower River Suir SAC and River Barrow and River Nore SAC).

<b>Likely direct, indirect or secondary impacts of the proposed development on the identified European Sites (Lower River Suir SAC and River Barrow and River Nore SAC)</b>	
<b>Size and scale</b>	The size and scale of the proposed development is moderate as it involves a green field site of approximately 1.99ha.
<b>Land-take</b>	There is approximately 1.99ha land-take associated with the proposed development.

<b>Distance from the European site</b>	Approximately 2.31km from the nearest European Site (Lower River Suir SAC)
<b>Resource requirements</b>	There will be no exploitation of resources within European Sites
<b>Emissions</b>	There is a risk of anticipated emissions from foreign particulate matter/hydrocarbons/pollution during the construction and operation phases.
<b>Excavation requirements</b>	The development and associated construction works are unlikely to have any potential indirect or direct impacts on the European Site.
<b>Transportation requirements</b>	To access the development site for construction and operational access, there are existing roadways in place.
<b>Duration of construction, operation, decommissioning</b>	The construction works are likely to take <2 years. There is no decommissioning involved with the site.
<b>Cumulative impacts with other projects or plans</b>	Potential impact was not identified with regard to any other European Sites

*Table 2 Effects of the proposed development on the European Sites*

No access will be required on the European Sites for the construction or operation of the development and are therefore not directly involved. There are no likely changes anticipated to the Qualifying Interests for either site.

In the assessment of possible impacts on the structure and function of the European Sites, there are potential indirect threats from pollution, particulate matter and hydrocarbons.

In the assessment of the indicators of significance, there is not any anticipated loss, fragmentation of European Sites as there are no direct changes anticipated.

In conclusion, the effect of the proposed development, for which planning is sought, could potentially have an indirect effect on the qualifying species and habitats of the Lower River Suir SAC River Barrow and River Nore SAC as detailed in Table 1, Table 2 and Appendices ii and iii.

### **3.3 Statement of Screening**

It is not anticipated that the proposed development for which planning is required, should have any significant effect on any other European Sites within a 15km radius apart from Lower River Suir SAC River Barrow and River Nore SAC, where there is a potential likelihood of risk from deposition of foreign particulate matter,

pollution from hydrocarbons.

The European Sites (Lower River Suir SAC River Barrow and River Nore SAC) are designated as SAC and SPA based on qualifying habitats and/or species and/or species listed on Annex I / II of the E.U. Habitats Directive or Birds Directive as detailed in the Site Synopsis for the site (Appendix ii and iii) and Tables 3 and 4.

This report has demonstrated that, the proposed development may have potential indirect effects on the qualifying species and habitats of the European Sites detailed in Table 3 and Table 4.

Therefore, a Stage 2 Appropriate Assessment is required as the Lower River Suir SAC and River Barrow and River Nore SAC cannot be 'screened out'.

### 3.4 Status of Qualifying Species and Habitats of the Lower River Suir SAC River Barrow and River Nore SAC.

In conclusion, with reference to Table 1, Table 2, Table 3, Table 4 and Appendices i, ii and iii, the potential threats to the qualifying species and habitats of the Lower River Suir SAC and River Barrow and River Nore SAC are anticipated in the form of deposition of foreign particulate matter and pollution from hydrocarbons from vehicles.

Habitat Code	Habitat
1330	Atlantic Salt Meadows
1410	Mediterranean Salt Meadows
3260	Floating River Vegetation
6430	Hydrophilous Tall Herb Communities
91A0	Old Oak Woodlands
91E0	Alluvial Forests*
91J0	Yew Woodlands*
Species Code	Species
1029	Freshwater Pearl Mussel ( <i>Margaritifera margaritifera</i> )
1092	White-clawed Crayfish ( <i>Austropotamobius pallipes</i> )
1095	Sea Lamprey ( <i>Petromyzon marinus</i> )
1096	Brook Lamprey ( <i>Lampetra planeri</i> )
1099	River Lamprey ( <i>Lampetra fluviatilis</i> )
1103	Twaite Shad ( <i>Alosa fallax</i> )
1106	Atlantic Salmon ( <i>Salmo salar</i> )
1355	Otter ( <i>Lutra lutra</i> )

Table 3. Qualifying habitats and species of the Lower River Suir SAC.

\*Priority Annex Habitats

Habitat Code	Habitat
1130	Estuaries
1140	Tidal Mudflats and Sandflats
1170	Reefs
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*
<b>Species Code</b>	<b>Species</b>
1016	Desmoulin's Whorl Snail ( <i>Vertigo moulinsiana</i> )
1029	Freshwater Pearl Mussel ( <i>Margaritifera margaritifera</i> )
1092	White-clawed Crayfish ( <i>Austropotamobius pallipes</i> )
1095	Sea Lamprey ( <i>Petromyzon marinus</i> )
1096	Brook Lamprey ( <i>Lampetra planeri</i> )
1099	River Lamprey ( <i>Lampetra fluviatilis</i> )
1103	Twaite Shad ( <i>Alosa fallax</i> )
1106	Atlantic Salmon ( <i>Salmo salar</i> )
1355	Otter ( <i>Lutra lutra</i> )
1421	Killarney Fern ( <i>Trichomanes speciosum</i> )
1990	Nore Freshwater Pearl Mussel ( <i>Margaritifera durrovensis</i> )

Table 4. Qualifying habitats and species of the River Barrow and River Nore SAC

\*Priority Annex Habitats

This Stage 1 report has demonstrated that, the proposed development has a potential indirect effect on the qualifying species or habitats of two of the European Sites identified in Table 1.

In conclusion, there is a potential pathway for direct risk from emissions from foreign particulate matter/hydrocarbons/pollution during the construction phase and hydrocarbons from the operation phase into the European Sites. This is due to the proximity of the John's River which discharges directly into the Lower River Suir SAC and down river into the River Barrow and River Nore SAC. Therefore, a Stage 2 Appropriate Assessment is required as the aforementioned SACs cannot be 'screened out'.

This assessment has been undertaken on the basis of the best scientific knowledge in the field and the Precautionary Principle.

**Dr Jane Russell-O'Connor PhD, P.G.C.E, BSc.**

**Russell Environmental and Sustainability Services Limited**

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# **Appendices**