



Navan GDA Cycle Route

Appropriate Assessment Screening Report

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1.0 INTRODUCTION

1.1 Background

Roughan & O'Donovan- AECOM (ROD-AECOM) was appointed by Meath County Council to prepare an Appropriate Assessment (AA) Screening Report in respect of the Navan GDA Cycle Route ("the Project"). The AA Screening Report is intended to determine whether or not the Project is likely to have a significant effect on areas designated as being of European Union importance for nature conservation ("Natura 2000 sites"), either individually or in combination with other plans or projects and in view of best scientific knowledge and the sites' conservation objectives, thereby enabling Meath County Council ("the Competent Authority") to comply with Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). During preparation of the AA Screening Report, the statutory consultee, the National Parks & Wildlife Service (NPWS), provided data on the designations of sites, habitats and species (including birds) of conservation interest.

This document comprises the AA Screening Report in respect of the Project and was prepared by ROD on behalf of Meath County Council and in accordance with the requirements of the Habitats Directive and the Planning and Development Acts, 2000-2017 ("the P&D Acts"). The aim of this AA Screening Report is to consider and assess the likely significant effects of the construction and operation of the Project and to inform and allow the competent authority to comply with the Habitats Directive. Article 6(3) of the Habitats Directive defines the requirements for assessment of projects and plans for which likely significant effects on Natura 2000 sites may arise. This report also forms part of the overall Part VIII planning application submission for the Project.

1.2 Legislative Context

The Habitats Directive and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds ("the Birds Directive") list habitats and species which are, in a European context, important for conservation and in need of protection. This protection is afforded in part through the designation of sites that, in a European context, support significant examples of habitats or populations of species. These sites are generally referred to as "European sites". Specifically, sites designated for wild birds are termed "Special Protection Areas" (SPAs) and sites designated for natural habitat types or other species are termed "Special Areas of Conservation" (SACs). The complete network of European sites is referred to as "Natura 2000".

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) has interpreted this requirement as follows¹:

¹ 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.

“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 word “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 Objectives² of the relevant European site(s).

In Ireland, this requirement is transposed into national law by Part 5 of the Habitats Regulations and Part XAB of the Planning and Development Acts, and the process is termed “Appropriate Assessment” (AA). 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”.

Article 6(3) of the Habitats Directive goes on to specify that AA must be carried out by the “competent national authorities”. In Ireland, the “competent authority” is the relevant planning authority for each plan or project, e.g. the local authority or An Bord Pleanála. Consequently, the responsibility for carrying out AA Screening lies solely with the competent authority. In that respect, the AA Screening Report is not in itself an AA Screening, but provides the competent authority with the information it needs in order to carry out its AA Screening.

In the preparation of this AA Screening Report, regard was given to the judgement of the CJEU in Case C323/17. Accordingly, any protection measures considered during the screening process were limited to those meeting the following criteria:

- The measures are demonstrably part of invariable routine practice and procedures;
- The measures are not intended to avoid or reduce likely significant effects on any European site; and,
- The measures would certainly be implemented if the project was located away from a European site.

1.3 Assessment Methodology

Best practice in undertaking AA Screening involves five steps as follows:

1. The first step involves gathering the information and data necessary to carry out a screening assessment. These include, but are not limited to, the details of all phases of the plan or project, environmental data pertaining to the area in which the plan or project is located, e.g. rare or protected habitats and species or invasive species present or likely to be present, and the details of the Natura 2000 sites within the likely zone of impact.
2. The second step involves an examination of the information gathered in the first step and a scientific analysis of the potential impacts of the Project on the

² Conservation Objectives are referred to, but not defined, in the Habitats Directive. In Ireland, Conservation Objectives are set for Qualifying Interests (the birds, habitats or other species for which a given European site is selected) and represent the overall target that must be met for that Qualifying Interest to reach or maintain favourable conservation condition in that site and contribute to its favourable conservation status nationally.

receiving environment within the likely zone of impact, focussing on the Natura 2000 sites designated in that zone.

3. The third step evaluates the impacts analysed in the second step against the Conservation Objectives of the relevant Natura 2000 sites, thereby determining whether or not those impacts constitute “likely significant effects”, within the meaning of Article 6(3) of the Habitats Directive.
4. The fourth step involves the consideration of the potential for likely significant effects to arise from the combination of the impacts of the plan or project with those of other plans or projects. If it is determined in the third step that Stage 2 (AA) is required, consideration of potential cumulative impacts may be deferred to the NIS that will be prepared at that stage. In the case of an absence of likely significant effects arising from the plan or project individually, consideration of potential cumulative impacts may only be disregarded where preceding steps found that there would be no effects whatsoever or that any effects would be imperceptible.
5. The last step involves the issuing of a statement of the determination of the AA Screening. Notwithstanding the recommendation made in the AA Screening Report, the responsibility for completing this step lies solely with the competent authority in each case.

The following guidance documents informed the assessment methodology:

- EC (2000) *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission;
- EC (2001) *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission;
- DEHLG (2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, Dublin; and,
- NPWS (2010a) *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.

2.0 DESCRIPTION OF THE PROJECT

2.1 Background

This AA Screening Report concerns a proposed cycleway in Navan. The cycleway forms part of the 2013 Greater Dublin Area (GDA) Cycle Network Plan (CNP) commissioned by the National Transport Authority (NTA). The route is shown in Figure 2.1 and 2.2. The route will allow commuters to access the town centre and also link several schools to residential areas.

2.2 Location

The Project is located along existing public roads in Navan, Co. Meath, as shown in Figure 2.1 and 2.2.

2.3 General Layout

The proposed route is approximately 2.9 km in length. The majority of the route is proposed within the curtilage of existing road ways and footpaths. Approximately 10% of the route will involve landtake from undeveloped green areas. From east to west, the route travels along Convent Road, from the Elm Park Junction. Along Convent Road, the route will include land take from St. Michael's School and the former convent. The route joins the R153 and will cross the River Boyne on the recently constructed boardwalk on New Bridge (Kentstown Road). Planning for the cantilevered pedestrian bridge has been approved under a separate Part VIII application (Planning Reference: P8/17006) and is currently under construction (Plate 2.1).

On the west side of the Bridge the route will turn south on a cantilevered boardwalk for 27m to the top of the gabions located along the Kells Road. There will be no earthworks or vegetation removal within the River Boyne and River Blackwater SAC/SPA. It will not be necessary to locate any temporary or permanent works in the River Boyne and River Blackwater SAC/SPA. The 27m long boardwalk section will extend from the retaining wall to support the new footway and will be constructed by piles and supports/restraints constructed on public road side of the retaining wall. This means that the boardwalk will extend over the River Boyne and River Blackwater SAC/SPA but will not be in contact with or disturb the ground underneath it.

The cantilevered boardwalk will join with a new footpath along the Kells Road. In order to construct the new footpath, the existing railings along the Kells Road will be removed and any vegetation encroaching into this area will be cut back (Plate 2.2). The railings will then be set back to the edge of the gabion baskets. Crushed stone (cl 804) will be used to provide a level foundation. The surface will be finished with either 100mm of concrete or 50mm of blacktop. The footpath will be constructed entirely on built land (existing gabion baskets which were installed in the mid-1980's) and no works will be required within the adjacent habitats.

The route will follow the Kells Road as far as the Circular Road junction. The route travels along Circular Road before turning south along the R161 as far as Beechmount Avenue. The route will include the land take and demolition of a house extension opposite Fulham's Pub on Railway Street. In addition, to facilitate road widening on Trim Road, land take will be required along the proposed route which will include the removal of overgrown hedges and grass verges.

Boundaries to be removed and set back are as follows:

- The southern side of Convent Road between the convent and opposite Athlumney Castle (60m).
- The northern side of Convent Road from Athlumney Castle to the Railway Bridge (85m) and; from the east side of the railway bridge and from the west side of the railway bridge to the right-hand bend (180m).
- On the east side of the Kells Road a long 3m wide boardwalk will be cantilevered over the river bank (27m).
- The southern side of Circular Road from the Academy Car Sales to the Fair Green Junction (200m).
- The eastern side of Railway Street from the roundabout to the railway bridge (200m). This will include the demolition of a house extension opposite Fulham's Pub.
- The eastern side of the Trim Road along the boundary of Flowerfield Primary School and Leinster Petroleum Company Ltd (50m).
- The western side of the Trim Road along the boundary of the Beechmount Garden Centre (20m).

It is anticipated that some trees will be removed on Circular Road as part of the works. These include 6 no. small ornamental trees and 80m of Portuguese Laurel hedge on the south side of circular road close to the Fair Green junction. Three semi-mature beech trees and an immature ash tree may be also be removed (depending on the final design) close to the Circular Road/ Academy Street Junction. Lighting will not increase the existing levels of lighting along the route. Construction is expected to be 4-6 months in duration.



Plate 2.1: Boardwalk construction along New Bridge



Plate 2.2: Existing footpath and visible gabion wall along the Kells Road.

Construction along the route will involve the following elements:

- Construction of new kerb lines for new footpath and for cycle track;
- Earthworks - excavation of portions of existing verge;
- Vegetation removal;
- Break-up of redundant road carriageway;
- Construction of footpath;
- Construction of cycle track;
- Relocation of drainage gullies;
- New gullies and gully connections to existing drainage network for certain sections;
- Construction of a 27m long cantilevered boardwalk;
- Construction of a footpath on existing gabion wall on the Kells Road;
- Resurfacing and new lining; and,
- Landscaping.

2.4 Desk Study

The desk study was undertaken in August 2017 and included reviews of reporting under Article 17 of the Habitats Directive (NPWS, 2013) and Article 12 of the Birds Directive (Eionet, 2017) and Birds of Conservation Concern in Ireland 2014-2019 (Colhoun & Cummins, 2013). A review of the Site Synopses and Natura 2000 Standard Data Forms of the River Boyne and River Blackwater SAC (NPWS, 2014a) and the River Boyne and River Blackwater SPA (NPWS, 2010b) was also undertaken.

The data gathered and examined as part of the desk study and the results of the field survey carried out in July 2018 was used in the assessment in the Section 4 of this Report.

2.5 Ecological Survey

A survey of the entire route was undertaken on 4th July 2018. The survey included the riverbank along the Kells Roads from the Kentstown Bridge to the Railway Bridge. Much of the riverbank was inaccessible due to dense vegetation and the steep bank. The eastern bank was also inaccessible. For this reason, binoculars were used from the Kentstown Bridge to survey the inaccessible areas upstream. The main concern during the survey was the presence of invasive species and otter shelters on the banks of the River Boyne.

The survey of the route including the river bank below the Kells Road did not identify any protected species, protected habitats or invasive species.

The most common habitat within the footprint of the route is built ground (BL3). The land take will also include grassy verges (GA2) with occasional trees as described in Section 2. The most ecologically important habitat was the River Boyne and the woodland along the Kells Road which is immediately adjacent to the route. This habitat screens the River Boyne from the Kells Road and provides habitat for nesting birds. The woodland (WD1) along the banks of the River Boyne was dominated by Sycamore, Willow and Butterfly Bush. Other species included Ash, Hawthorn, Bramble, Dog Rose, Hogweed, Nettle, Red Valerian and Rosebay Willowherb (Plate 2.3). In places this habitat graded into scrub (WS1) where there was no canopy and Butterfly Bush and Brambles dominated.

Road verges and river corridors often provide a conduit for invasive species to spread. No non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011-2015 were recorded.

Best practice guidelines published by Transport Infrastructure Ireland (TII), CIEEM and the Bat Conservation Trust were used to plan and undertake the survey. In this case, the focus of the protected species survey was on Otter and Kingfisher. The survey included the riverbank along the Kells Roads from the Kentstown Bridge to the Railway Bridge. Much of the riverbank was inaccessible due to dense vegetation and the steep bank. The eastern bank was also inaccessible. For this reason, binoculars were used from the Kentstown Bridge to survey the inaccessible areas upstream.

The riparian habitat along the Kells road was deemed unsuitable for Kingfisher to nest in as there was no steep or bare banks. No evidence of Otter such as spraints, slides or holts were recorded in the area.

No evidence of otter such as spraints, slides or holts were recorded in the area. No habitats listed as Qualifying Interests of the River Boyne and River Blackwater SAC/SPA were recorded in the vicinity of the route. The riparian habitat along the Kells road did not contain bare vertical banks and was deemed unsuitable for Kingfisher to nest in.



Plate 2.3 : Typical habitats found along the Kells Road

2.6 Environmental Protection Measures

A number of environmental protection measures (which meet the criteria set out in the final paragraph of Section 1.2 of this report) have been incorporated into the design of the Project. The environmental protection measures described in this section are part of standard operating procedures near watercourses. They are not designed specifically to avoid Likely Significant Effects on Qualifying Interests of the SAC/ SPA and would be implemented if this project was being constructed and operated away from a European Site.

- A Construction Method Statement will be approved by NPWS prior to works.
- The Construction Method Statement and will be read and approved by the Site Foreman before works begin.
- The Works Team will be inducted on the ecological considerations listed in the Construction Method Statement by the Site Foreman and a signed copy will be submitted to the District Conservation Officer of the NPWS.

In addition, the following best practice control measures (which also meet the criteria in Section 1.2) from Inland Fisheries Ireland have been incorporated into the design of the Project:

- IFI (2016) *Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters*. Inland Fisheries Ireland, Dublin.

Hydrocarbon usage

The use of hydrocarbons during the construction process leads to the potential for pollution to enter the wider environment, including adjacent watercourses. Leaks in poorly maintained plant and machinery could lead to hydrocarbon dispersal over works areas and into the wider area. Leaks in fuel storage tanks and spillages during

refuelling operations could lead to larger releases of hydrocarbons into the environment.

The use of machinery carries the potential for accidental hydrocarbon contamination of works areas, by fuel spillages or oil leaks, for example. The works will be carried out in accordance with the following measures to avoid such impacts:

- No refuelling is to take place within 50 m of the SAC/SPA.
- Only dedicated trained and competent personnel will carry out refuelling operations. A spill kit and drip tray shall be on site at all times and available for all refuelling operations. Equipment shall not be left unattended during refuelling. All pipework from containers to pump nozzles will have anti-siphon valves fitted.
- Care will be taken at all times to avoid contamination of the environment with contaminants other than hydrocarbons, such as oils or other chemicals.

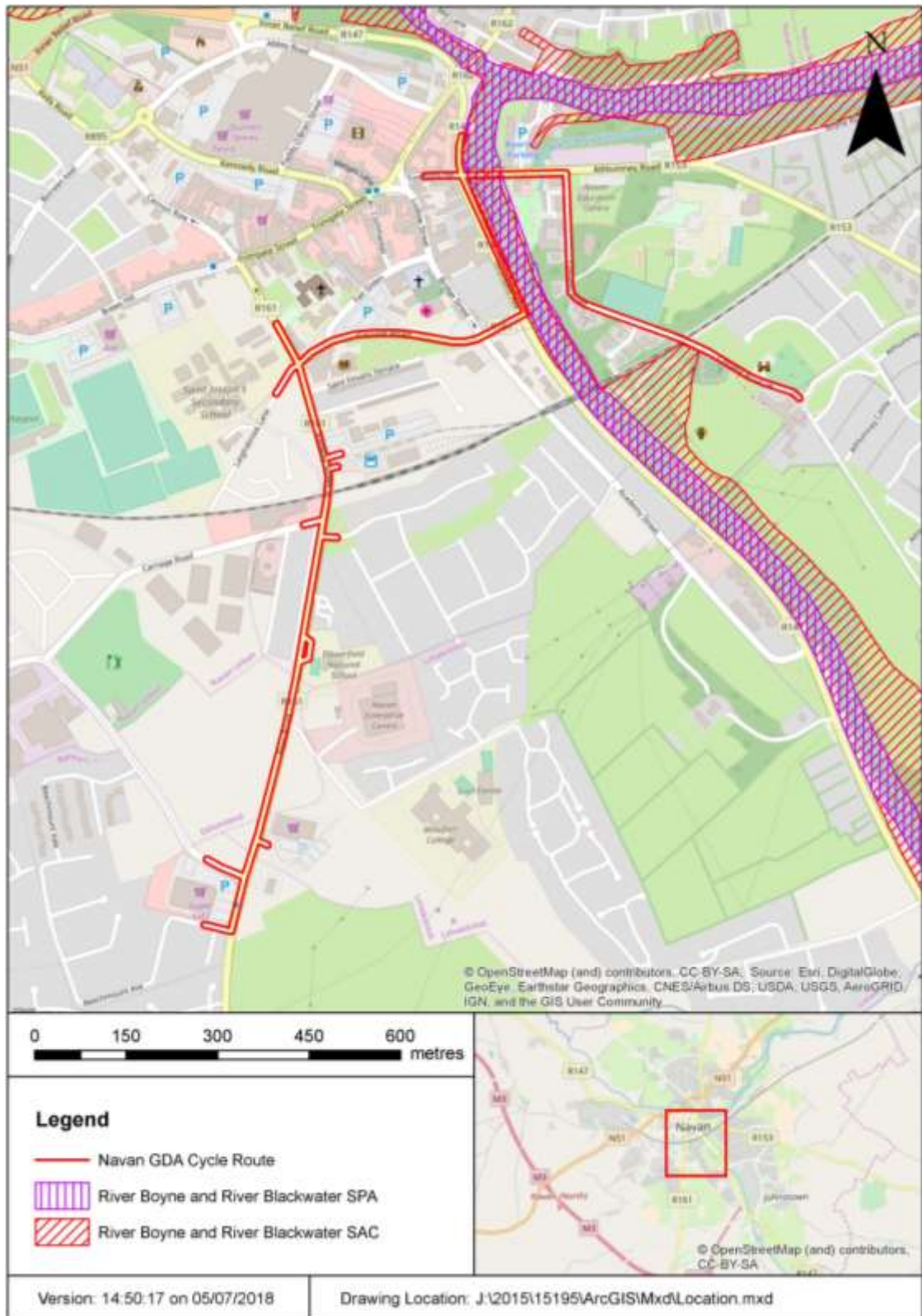


Figure 2.1 Location of the Project.



Figure 2.2 Natura 2000 Sites in closest proximity to the Route.

3.0 NATURA 2000 SITES LIKELY TO BE AFFECTED

3.1 Establishing the Likely Zone of Impact

Section 3.2.3 of the Department of Environment, Heritage and Local Government's *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DEHLG, 2010) outlines the procedure for selecting the Natura 2000 sites to be considered in AA Screenings. It states that Natura 2000 sites potentially affected should be identified and listed, bearing in mind the potential for direct, indirect and/or cumulative effects. It also states that the specific approach to Screening 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 Natura 2000 sites within or immediately adjacent to the plan or project area;*
- *All Natura 2000 sites within the likely zone of impact of the plan or project; and,*
- *In accordance with the Precautionary Principle, all Natura 2000 sites for which there is doubt as to whether or not they might be significantly affected.*

The “likely zone of impact” of a plan or project is the geographic extent over which significant ecological effects are likely to occur. In the case of plans, this zone should extend to a distance of 15km in all directions from the boundary of the plan area. In the case of projects, however, the guidance recognises that the likely zone of impact must be established on a case-by-case basis, with reference to the following key variables:

- *The nature, size and location of the project;*
- *The sensitivities of the ecological receptors; and,*
- *The potential for cumulative effects.*

For example, in the case of a project that could affect a watercourse, it may be necessary to include the entire upstream and/or downstream catchment in order to capture all Natura 2000 sites with water-dependent Qualifying Interests. Therefore, considering the key variables outlined above, the likely zone of impact for the Project was defined as the area within:

- The sub-basin of the river catchments for Navan.

A geographical representation of the likely zone of impact was generated in ArcGIS 10.4 using the Project boundary, publicly available basemaps (OpenStreetMap) and Environmental Protection Agency (EPA) shapefiles. This was used in combination with NPWS shapefiles to identify the boundaries of European sites in relation to the likely zone of impact (Table 3.1; Figure 3.1). It was determined that two Natura 2000 sites, namely the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA occur within the likely zone of impact of the Project.

Table 3.1 Natura 2000 sites within the likely zone of impact of the Project

Natura 2000 site	Site summary	Closest proximity
River Boyne and River Blackwater SAC [002299] Site area: 2,320.8ha (hectares)	This site comprises much of the Boyne-Blackwater system. There are large towns adjacent to the site. Agriculture is the main land use along the site and fishing is the main tourist attraction. Dredging continues to disrupt Salmonid spawning in the system. Drainage of adjacent systems also impacts on many wetland areas throughout the site. Although the wet woodland areas appear small, there are few examples of this type of woodland remaining. The semi-natural habitats, particularly the woodland strips along the river banks, marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site, as does the presence of a range of Red Data Book plant and animal species.	The Project occurs within and adjacent to the SAC.
River Boyne and River Blackwater SPA [004232] Site area: 460.3 ha	This is a long, linear site that comprises stretches of the River Boyne and several of its tributaries. It includes both the river channel and marginal vegetation. The site is of high ornithological importance as it supports a nationally important population of Kingfisher, which is listed on Annex I of the Birds Directive.	The Project occurs within and adjacent to the SPA.

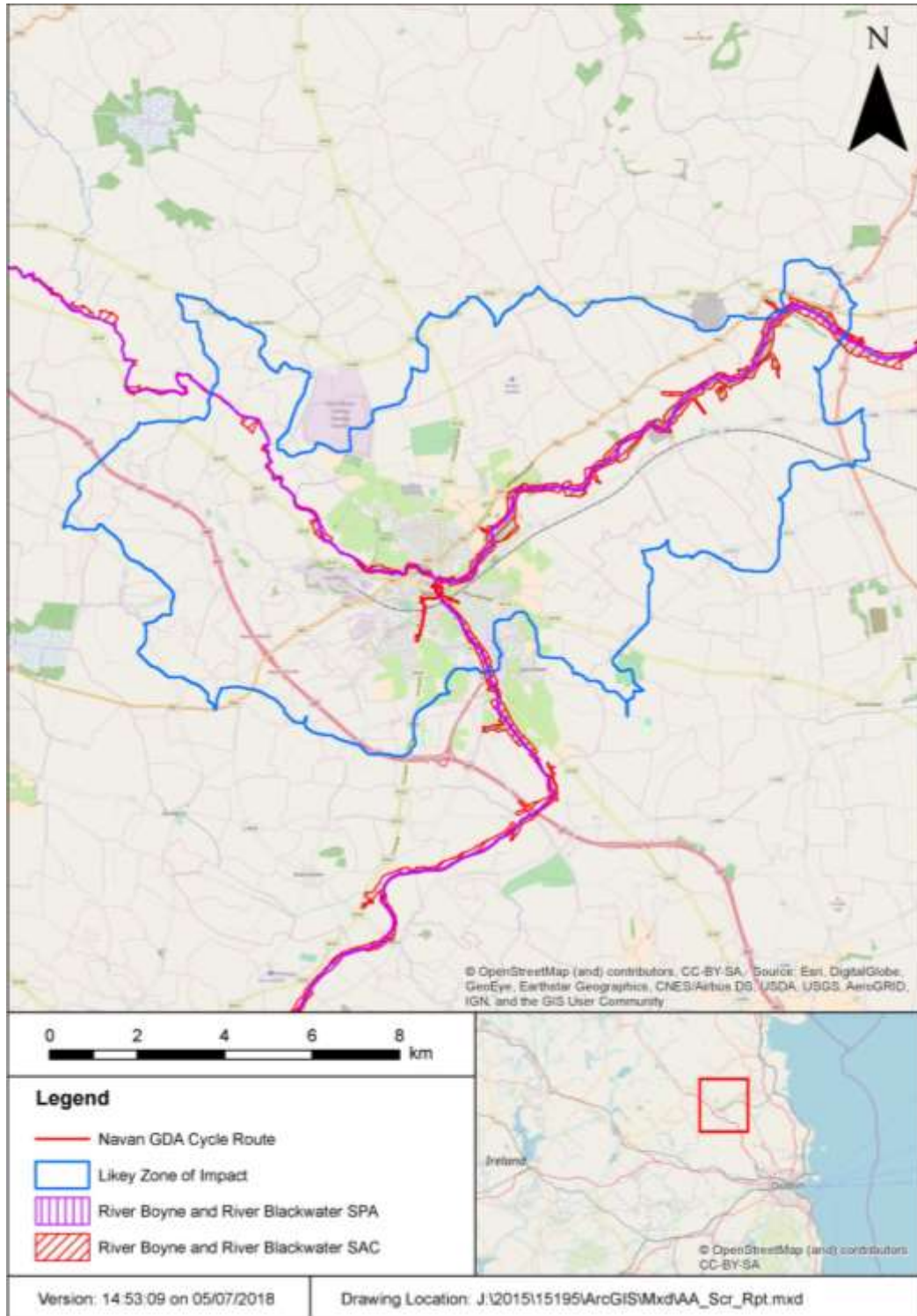


Figure 3.1 Location of Natura 2000 sites in relation to the likely zone of impact of the Project

3.2 Site Descriptions

River Boyne and Blackwater SAC

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth.

The Boyne and its tributaries form one of Ireland's premier game fisheries and the area offers a wide range of angling, from fishing for spring salmon and grilse to sea trout fishing and extensive brown trout fishing. Atlantic Salmon (*Salmo salar*) use the tributaries and headwaters as spawning grounds.

This site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive which it supports, namely River Lamprey (*Lampetra fluviatilis*), which is present in the lower reaches of the Boyne River, and Otter (*Lutra lutra*), which can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals, with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act, 1976.

The site supports populations of several species listed on Annex II of the Habitats Directive, and habitats listed on Annex I of this Directive, as well as examples of other important habitat types. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks, and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site, as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species.

The site is designated as an SAC under the Habitats Directive. The following species and habitats are listed as the Qualifying Interests of the site:

- [7320] Alkaline Fens
- [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
- [1099] River Lamprey (*Lampetra fluviatilis*)
- [1106] Salmon (*Salmo salar*)
- [1355] Otter (*Lutra lutra*)

River Boyne and River Blackwater SPA

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown

Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher. A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22 Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the Birds Directive.

The site is designated as an SPA under the Birds Directive. The following species is listed as a Special Conservation Interest of the site:

[A229] Kingfisher (*Alcedo atthis*)

3.3 Conservation Objectives

Article 6(3) of the Habitats Directive specifies that AA Screening be undertaken in view of the Conservation Objectives of the relevant Natura 2000 sites. Conservation Objectives are set for each Qualifying Interest or Special Conservation Interest in each site, and are defined by detailed Attributes, which describe the environmental parameters and ecological characteristics relevant to the conservation condition of each Qualifying Interest or Special Conservation Interest, and their corresponding Targets, which must be met if the conservation condition is to be judged as favourable. In that respect, Targets define the state of the ecological structure and functions of a given Natura 2000 site that are necessary for the restoration and maintenance of the favourable conservation status of a Special Conservation Interests or Qualifying Interests (EC, 2012). Therefore, the evaluation of the potential impacts as either constituting likely significant effects or not may be limited to an assessment of these impacts against the Conservation Objective of the site.

Article 1(e) of the Habitats Directive defines the conservation status of a natural habitat as the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species. The conservation status of a natural habitat will be taken as “favourable” when all of the following criteria are met:

- Its natural range and areas it covers within that range are stable or increasing;
- The specific structure and functions 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.

Article 1(i) defines the conservation status of a species as the sum of the influences acting on the species concerned that may affect the long-term distribution and

abundance of its populations. It will be taken as “favourable” when all of the following criteria are met:

- 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.

Site-specific Conservation Objectives for the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA have not to date been developed. However, generic Conservation Objectives apply (NPWS, 2016a, 2016b). For the purpose of the AA Screening, Conservation Objectives from other Natura 2000 sites have been used as proxies for those of the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA. This approach has been recommended by the NPWS in relation to other plans and projects. For each Qualifying Interest and Special Conservation Interest, the Conservation Objectives used have been taken from similar Natura 2000 sites where those features are in a similar conservation condition.

4.0 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

4.1 Sources and Types of Likely Significant Effects

The potential for the Project to have significant effects on the Qualifying Interests and Special Conservation Interests of Natura 2000 sites is analysed in this section.

Having regard to the results of the desk study that was carried out to inform this AA Screening Report, it is considered that the individual elements of the Project with the potential to give rise to negative impacts on the Qualifying Interests and Special Conservation Interests of the sites are:

- General construction activities, but primarily the construction of the boardwalk along the Kells Road between New Bridge and Circular Road.

The proposed pedestrian/cycle bridge on the Kentstown Road has been approved as part of a separate planning application (P8/17006). A separate AA Screening Report was carried out for the new pedestrian/cycle bridge adjacent to the existing New Bridge on the Kentstown Road. This report concluded that:

“Following thorough and robust ecological surveys, consultations, review of the SPA and SAC boundaries and the Natura sites' conservations objectives and threats, this Appropriate Assessment Screening determines that there will be no significant effects on the Natura 2000 sites, because no works will take place in the water of the Boyne River itself and the Contractor will implement best construction practice and strictly adhere to the site's Environmental Management Plan. Subsequent to construction work lighting of the pedestrian and cycle bridge will be designed and installed to minimise potential to disturb bats”.

4.2 Potential Likely Significant Effects on Qualifying Interests

In Ecological and Environmental Impact Assessment, for an impact to occur there must be a risk enabled by having a “source”, e.g. construction works at a proposed development site, a “receptor”, e.g. an SPA or other ecologically sensitive feature, and a pathway between the source and the receptor, e.g. a watercourse connecting the proposed development to the SPA. The risk of the impact does not automatically mean that it will occur or that it will be significant. However, identification of the risk does mean that there is a possibility of ecological or environmental damage, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

Pathways for impacts are considered to be through surface water run-off, noise and vibration. Surface water run-off will be controlled through best practice procedures during construction and operation.

Table 4.1 below states the potential for likely significant effects on the Qualifying Interests and their individual Attributes and Targets.

Table 4.1 Identification of likely significant effects on the River Boyne and River Blackwater and SAC. Source: NPWS (2013a), unless specifically referenced. * = a “priority habitat” in danger of disappearing from the EU. Numbers in square brackets are Natura 2000 codes.

Qualifying Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
Alkaline Fens [7230]	There are no Alkaline Fens within 500m of the Project	Alkaline fens are typically base-rich basin or flush fen systems with extensive areas of species-rich small sedge communities of the alliance <i>Caricion davallianae</i> . These fen systems are often a complex mosaic of habitats, with tall sedge beds, reedbeds, wet grasslands, springs and open water often co-occurring at one site. Alkaline fen habitat can occur beyond peat-forming fen systems, such as in dune slacks and wet grasslands. 36 SACs are designated for Alkaline fens in the Member State. It is estimated that a total of 6,349 ha of Alkaline fens occurs within the Natura 2000 network. This habitat forms c. 1.0% (23.21 ha) of the River Boyne and River Blackwater SAC, equivalent to c. 0.37% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is Bad with the trend “unknown”. Pressures and threats to this habitat type include drainage, reclamation of land from the sea, estuaries or marshes, diffuse pollution from agriculture and forestry and cessation of grazing.	To maintain the favourable conservation condition of Alkaline Fens in the River Boyne and River Blackwater SAC, as per the River Moy SAC [002298] (NPWS, 2016c)	Habitat area	Area stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on Alkaline Fens in the River Boyne and River Blackwater SAC.
				Habitat distribution	No decline, subject to natural processes	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on Alkaline Fens in the River Boyne and River Blackwater SAC.
				Hydrological regime	Appropriate natural hydrological regimes necessary to support the natural structure and functioning of the habitat	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Hydrological regime of Alkaline Fens in the River Boyne and River Blackwater SAC.
				Peat formation	Active peat formation, where appropriate	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Peat formation capability of Alkaline Fens in the River Boyne and River Blackwater SAC.
				Water quality: nutrients	Appropriate water quality to support the natural structure and functioning of the habitat	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on Alkaline Fens in the River Boyne and River Blackwater SAC.
				Vegetation structure: typical species	Maintain vegetation cover of typical species including brown mosses and vascular plants	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Vegetation structure of Alkaline Fens in the River Boyne and River Blackwater SAC.
				Vegetation composition: trees and shrubs	Cover of scattered native trees and shrubs less than 10%	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Vegetation composition of Alkaline Fens in the River Boyne and River Blackwater SAC.

Qualifying Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
				Physical structure: disturbed bare ground	Cover of disturbed bare ground less than 10%. Where tufa is present, disturbed bare ground less than 1%	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alkaline Fens, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Physical structure of Alkaline Fens in the River Boyne and River Blackwater SAC.
				Physical structure: drainage	Areas showing signs of drainage as a result of drainage ditches or heavy trampling less than 10%	
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]	The SAC has not been systematically mapped and therefore there is no accurate determination of the location and extent of annex Alluvial forest within the SAC. The nearest confirmed Alluvial Forest 91E0 as per the NPWS National Survey of Native Woodland GIS Inventory is located 18 km away east of Oldbridge.	Alluvial forests occur on heavy soils that are periodically inundated by the annual rise of river levels, but which are otherwise well drained and aerated during low water. Also included in this classification are gallery forests of tall Willows (<i>Salicion albae</i>) in which tree roots are almost continuously submerged. They are dominated by <i>Salix alba</i> , <i>S. viminalis</i> and <i>S. triandra</i> , sometimes with <i>S. cinerea</i> but Alder is relatively rare. 25 SACs are designated for this habitat type in the Member State. It is estimated that a total of 1,046 ha of 91E0 occurs within the Natura 2000 network. No site-specific Conservation Objectives for Alluvial forests have been developed within this SAC. The Natura Standard Data Form (NPWS, 2014a) estimate states this habitat forms c. 1.0% (23.21 ha) of the River Boyne and River Blackwater SAC, equivalent to c. 2.22% of the entire national Natura 2000 contribution for this QI. The overall conservation status of this habitat is considered to be Bad but “Improving”.	To maintain the favourable conservation condition of Alluvial Forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) in the River Boyne and River Blackwater SAC, as per the <i>Glengarriff Harbour and Woodland SAC [000090]</i> (NPWS, 2015a)	Habitat area	Stable or increasing, subject to natural processes	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Habitat area of Alluvial forests in the River Boyne and River Blackwater SAC.
				Habitat distribution	No decline	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Habitat distribution of Alluvial forests in the River Boyne and River Blackwater SAC.
				Woodland size	Where possible, large woods of at least 25 ha and small woods of at least 3 ha	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Woodland size of Alluvial forests in the River Boyne and River Blackwater SAC.
				Woodland structure: cover and height	Diverse structure with a relatively closed canopy containing mature trees; sub-canopy layer with semi-mature trees and shrubs; well-developed herb layer	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Woodland structure of Alluvial forests in the River Boyne and River Blackwater SAC.
				Woodland structure: community diversity and extent	Maintain diversity and extent of community types	
				Woodland structure: natural regeneration	Seedlings, saplings and pole age-classes occur in adequate proportions to ensure survival of woodland canopy	

Qualifying Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
				Hydrological regime: flooding depth/height of water table	Appropriate hydrological regime necessary for maintenance of alluvial vegetation	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Hydrological regime of Alluvial forests in the River Boyne and River Blackwater SAC.
				Woodland structure: dead wood	At least 30 m ³ /ha of fallen timber > 10 cm in diameter and 30 snags per ha; both should include stems > 40 cm in diameter or > 20 cm in diameter in the case of alder	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Woodland structure of Alluvial forests in the River Boyne and River Blackwater SAC.
				Woodland structure: veteran trees	No decline	
				Woodland structure: indicators of local distinctiveness	No decline	
				Vegetation composition: native tree cover	No decline; native tree cover at least 95%	No Likely Significant Effect – Given the nature of the works and the distance between the Project and Alluvial forests, there are no potential sources or pathways from the Project that could lead to likely significant effects on the Vegetation composition of Alluvial forests in the River Boyne and River Blackwater SAC.
				Vegetation composition: typical species	Variety of typical native species present, depending on woodland type, including alder, willows and, locally, ash	
River Lamprey (<i>Lampetra fluviatilis</i>) [1099]	Considered in immediate proximity	The River Lamprey is one of three lamprey species recorded in Ireland. It is non-parasitic and non-migratory as an adult, living its entire life in freshwater. Adults spawn in spring and, after hatching, the ammocoetes drift or swim downstream before encountering areas of river bed with a fine silt composition. They burrow into this bed material and live as filter feeders over a period of years before transforming into young adult fish. The young adults overwinter before migrating short distances upstream to gravelled areas where they spawn and die. River Lamprey are protected under Annex II of the Habitats Directive and listed in the Irish Red Data Book as “least concern”. 10 SACs are designated for this species in the Member State, containing 71 hectads (10 km grid squares) of the national resource of 753 hectads in which this species occurs. Population size within the River Boyne and River Blackwater SAC is not determined, but it is considered to account for less than 2% of the national population. The SAC is considered to be of “good value” for the conservation of River Lamprey. The overall conservation status of the species is considered Favourable, with main pressures/threats including dredging and removal of	To restore the favourable conservation condition of River Lamprey in the River Boyne and River Blackwater, as per the River Barrow and River Nore SAC [002116] (NPWS, 2011)	Distribution	Access to all watercourses down to 1 st order streams	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. A vegetated bank exists along the Kells Road, over 10m wide for the vast majority, providing a buffer between the Project and the River Boyne during construction and operation. Therefore, there will be no change on the distribution of River Lamprey as a result of the Project.
				Population structure of juveniles	At least 3 age/size groups of Brook/River lamprey present	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. Therefore, the Project will not result in any change to lamprey population structure.
				Juvenile density in fine sediment	Mean catchment density of Brook/River lamprey at least 2 juveniles per square meter	No Likely Significant Effect – There are no in-stream works required as part of the Project. Therefore, the Project will not lead to likely significant effects on the density of juveniles in the sediment.

Qualifying Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
		sediments, changes in the sedimentation regimes, barriers to migration, pollution and Invasive Alien Species.		Extent and distribution of spawning habitat	No decline in extent and distribution of spawning beds	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. Therefore, there will be no likely significant effects on extent and distribution of spawning habitat as a result of the Project.
				Availability of juvenile habitat	More than 50% of sites sampled in 2 nd order (or greater) channels downstream of spawning sites positive for juvenile habitat	No Likely Significant Effect – Barriers to connectivity, both physical and noise related, will not be created as a result of the Project, either during construction or operation. Therefore, there will be no likely significant effects on to availability of juvenile habitat as a result of the Project.
Atlantic Salmon (<i>Salmo salar</i>) [1106]	Considered in immediate proximity.	The Atlantic Salmon is an anadromous species indigenous to the North Atlantic. Salmon use rivers to reproduce and as nursery areas during their juvenile phase. Adults spend 1 to 3 years at sea where growth rates are much greater. The Irish population generally comprises fish that spend 2 winters in freshwater before going to sea in April-June. Most Irish fish spend 1 winter at sea before returning to their natal rivers, mainly during the summer. Smaller numbers spend 2 winters at sea, returning mainly in spring. A small proportion of the adult population returns to sea post-spawning and can spawn again. <i>Salmo salar</i> is listed in the Irish Red Data Book as Vulnerable. It is protected under Annexes II and V of the Habitats Directive (in freshwater only) and under the OSPAR Convention. 26 SACs are designated for this species in the Member State, containing between c. 97,643 and c.146,464 individuals of the national population of c. 244,107. Population size within the River Boyne and River Blackwater SAC is not determined, but it is considered to account for less than 2% of the national population. The SAC is nonetheless considered to be of “good value” for the conservation of Atlantic Salmon. The overall conservation status of the species is considered Inadequate but “stable”, with major pressures/threats including agricultural intensification, disposal of household/recreational facility waste, poaching and pollution due to agriculture, forestry, household sewage and waste waters.	To restore the favourable conservation condition of Atlantic Salmon in the River Boyne and River Blackwater SAC, as per the Connemara Bog Complex SAC [002034] (NPWS, 2015b)	Distribution: extent of anadromy	100% of river channels down to 2 nd order accessible from estuary	No Likely Significant Effect – Barriers to connectivity, both physical and noise related, will not be created as a result of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. A vegetated bank exists along the Kells Road, over 10m wide for the vast majority, providing a buffer between the Project and the River Boyne during construction and operation. Therefore, there will be no likely significant effects on barriers to migration as a result of the Project.
				Number of adult spawning fish	Conservation Limits consistently exceeded (predicted to be exceeded by 120% in 2015)	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. Therefore, the Project will not lead to likely significant effects on adult spawning fish.
				Fry abundance	Maintain or exceed mean catchment-wide 0+ fry abundance threshold (17 fry per 5-minute electrofishing sample)	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. Therefore, the Project will not lead to likely significant effects on fry abundance.
				Out-migrating smolt abundance	No significant decline	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. Therefore, the Project will not lead to likely significant effects on out-migrating smolt within the Boyne-Blackwater system.

Qualifying Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
				Number and distribution of redds	No decline in number and distribution of spawning redds due to anthropogenic causes	No Likely Significant Effect – There are no in-stream works required as part of the Project. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. Therefore, there will be no likely significant effects on spawning redds.
European Otter (<i>Lutra lutra</i>) [1355]	Considered in immediate proximity.	The Otter is a large carnivore with a long, slim body, short legs with webbed feet and a tapered tail. Adult males can reach 1 m in length and 10 kg in weight. Dramatic declines occurred in many European populations during the latter half of the 20 th Century. As a result, Otter became extinct in several countries. However, Ireland has remained a strong-hold for the species. Otter are protected under Annexes II and IV of the Habitats Directive and under the Wildlife Act, 1976-2012. A Regulation 39 Threat Response Plan has been progressed for Otter in the Republic of Ireland. The species is listed in the Irish Red Data Book as Near Threatened. 45 SACs are designated for this species in the Member State, containing c.468–660 of the country's c.7,218–10,186 breeding females (Reid <i>et al.</i> , 2013). Population size within the River Boyne and River Blackwater SAC is not determined, but it is considered to be less than 2% of the national population (Natura 2000 Standard Form). This SAC is nonetheless considered to be of "excellent value" for the conservation of Otter. The overall conservation status of the species is considered Favourable, with road mortalities constituting the major pressure at present.	To maintain the favourable conservation condition of European Otter in the River Boyne and River Blackwater SAC, as per the Blackwater River (Cork/Waterford) SAC [002170] (NPWS, 2012)	Distribution	No significant decline	No Likely Significant Effect – Construction will be temporary, and the operation of the cycleway and footway will not result in an overall increase in disturbance. No areas of the riverbed will be lit or subject to an increase in disturbance during operation. A vegetated bank exists along the Kells Road, over 10m wide for the vast majority, providing a buffer between the Project and the River Boyne during construction and operation. Therefore, there will be no likely significant effects on the distribution of Otter as a result of the Project.
				Extent of terrestrial, freshwater and marine habitat	No significant decline	No Likely Significant Effect – The construction of the footpath will be on top of existing gabion baskets. There will be no land take from natural habitats. The construction of the boardwalk to tie into the New Bridge boardwalk. The boardwalk will be 27m long and 3m wide, with 62m ² cantilevered over the riverbank. The area adjacent to the Kells Road is presently subject to high levels of noise and artificial light as would be expected in an urban center. Any noise during construction will be temporary and during daylight hours. The increases in noise during operation will be considered negligible relative to the ambient levels and will not lead to a significant decline in habitat extent. There will be no additional lighting to existing levels. Therefore, there will be no likely significant effects on habitat extent as a result of the Project.
				Couching sites and holts	No significant decline	No Likely Significant Effect – An otter survey was undertaken in July 2018. No otter couching sites or holts were recorded.
				Fish biomass available	No significant decline	No Likely Significant Effect – There are no in-stream works required as part of the Project. Standard operating procedures will prevent impacts on the wider environment. A vegetated bank exists along the Kells Road, over 10m wide for the vast majority, providing a buffer between the Project and the River Boyne during construction and operation. Therefore, there will be no likely significant effects on the availability of fish biomass within the SAC as a result of the Project.

Qualifying Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
				Barriers to connectivity	No significant increase	No Likely Significant Effect – Barriers to connectivity, both physical and noise related, will not be created as a result of the Project, either during construction or operation. Therefore, there will be no likely significant effects on the barriers to connectivity as a result of the Project.

Table 4.2 Identification of likely significant effects on the River Boyne and River Blackwater and SAC. Source: Eionet (2017) and Colhoun & Cummins (2013), unless specifically referenced.

Special Conservation Interest	Closest proximity	Extent and character	Conservation Objective	Attribute	Target	Likely Significant Effect
Kingfisher (<i>Alcedo atthis</i>) [A229]	Kingfisher considered present (but not nesting) in immediate proximity in the Boyne.	The River Boyne and River Blackwater SPA is of high ornithological importance as it supports a nationally important Kingfisher population and is one of only 2 Natura 2000 sites listing Kingfisher as a SCI. This species is listed on Annex I of the Birds Directive. It is protected under the Wildlife Acts, 1976–2012 and is an Amber-listed Bird of Conservation Concern in Ireland (BoCCI) (Colhoun & Cummins, 2013). Kingfisher are widespread in Ireland throughout the year with little difference between the breeding and non-breeding distributions (Thomas & Crowe, 2007). Generally, Kingfisher do not disperse beyond a core range of approximately 9 km (Morgan & Glue, 1977). A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the SPA (Cummins <i>et al.</i> , 2010). Cummins <i>et al.</i> (2010) estimated core breeding territory size in the River Boyne as c.10km.	To maintain the favourable conservation status of Kingfisher in the River Boyne and River Blackwater SPA (NPWS, 2016b).	No Attributes or Targets are defined at present for the River Boyne and River Blackwater SPA or any SPA in the Member State where Kingfisher is listed as a Special Conservation Interest. The Attributes and Targets used below are the most commonly used for other Special Conservation Interests in SPAs.		
				Population trend: numbers	Long-term population stable or increasing	No Likely Significant Effect – The walkover survey in July 2018 did not identify any suitable nesting habitat within 50m of the Project. Kingfisher are known to be present in the general vicinity. There will be no direct physical loss, disturbance or damage to known or suitable nesting habitat. The survey of the riverbank between along the Kells Road between the Kentstown Bridge and the Railway Bridge did not identify any suitable Kingfisher nesting habitat i.e. steep bare banks. The increase in disturbance from noise and vibration in the area of the project, both during construction and operation will be negligible relative to ambient levels and Kingfisher will continue to use this area. A vegetated bank exists along the Kells Road, over 10m wide for the vast majority, providing a buffer between the Project and the River Boyne during construction and operation. Therefore, there are no likely significant effects on Kingfisher as a result of the Project.
				Distribution	No significant decrease in the number or range of areas used.	

5.0 POTENTIAL IN-COMBINATION EFFECTS

A further requirement of Article 6(3) of the Habitats Directive is to determine whether or not the plan or project under assessment would be likely to have a significant effect any Natura 2000 site in combination with other plans or projects. As the intent of the in-combination provision is to take account of cumulative effects and, as these effects often only occur over long periods of time, plans or projects that are completed, approved or proposed should be considered in this context (EC, 2001).

The main driver for addressing the effects of other plans and projects in combination with the plan or project under assessment is to ensure that any potential cumulative effects are captured. For example, the effects of a plan or project on water quality may be insignificant when considered alone, but when combined with the effects of increased pollution or abstraction from other plans or projects, may lead to significant effects on the site concerned.

As the construction and operation of the Project does not provide for any negative impacts on the Qualifying Interests of the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA or any other Natura 2000 site, i.e. effects on Natura 2000 sites are unlikely, it is not necessary to undertake an assessment of the potential effects of the Project in combination with other plans or projects (as explained in Section 1.3).

6.0 CONCLUSION

In accordance with Article 6(3) of the Habitats Directive and Part XAB of the P&D Acts, the relevant case law, established best practice and the Precautionary Principle, this AA Screening Report has considered the Project and the potential for the Project to have likely significant effects on the relevant Natura 2000 sites, i.e. the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA. The report has analysed the potential impacts of the Project on the Qualifying Interests of the SAC and SPA in view of the Conservation Objectives of these Qualifying Interests.

Following the assessment detailed in this AA Screening Report, it can be concluded that the Project, either individually or in combination with other plans or projects, does not give rise to any likely significant effects on Qualifying Interests of the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA or any other Natura 2000 site. This conclusion was reached on the basis of objective information and in view of best scientific knowledge and the sites' Conservation Objectives. There is no doubt as to the conclusion reached.

In light of this conclusion, it is the considered opinion of ROD-AECOM that the Competent Authority, in completing its AA Screening in respect of the Project, should find that the Project, either individually or in combination with other plans and projects, does not give rise to any likely significant effects on the Qualifying Interests of the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA and their respective Conservation Objectives on the basis of objective scientific information and in view of the best scientific knowledge and the sites' Conservation Objectives.

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