Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout

Appropriate Assessment Screening

Meath County Council

November 2022

Notice

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Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft for comment	BW / CW	CW	POD	ST	04/10/2022
Rev 1	Draft for comment	BW / CW	CW	POD	ST	04/10/2022
Rev 2	Draft for comment	BW / CW	CW	POD	ST	07/11/2022
Rev 3	Final for Planning	BW / CW	CW	POD	ST	10/11/2022

Client signoff

Client	Meath County Council
Project	Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout
Job number	5214376
Client signature / date	

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1. Introduction

Meath County Council intend to submit a Part 8 Planning Application for the development of a cycle route in order to provide improved facilities for pedestrians and cyclists in the town of Navan.

Atkins Ireland have been commissioned by Meath County Council to prepare a Screening for Appropriate Assessment (AA) report for the proposed Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road Roundabout and all associated works in Navan Town. See Figure 1-1 below for an overview of the project location.

The proposed scheme will consist of ca. 1.1km of segregated cycle and pedestrian facilities along R147 Dublin Road Navan and N51 Inner Relief Road, commencing at the tie in with the proposed Local Distributor 4 scheme, continuing east to an upgraded signalised junction at the Balmoral Industrial Estate and on to an upgraded signalised junction at the Navan Fire Station, with the scheme to be terminated at the junction of the R147 and Flowerhill (Poolboy Bridge) which is also proposed to be upgraded.

The Navan Cycle Scheme will provide safe and attractive cycle routes, catering for all cycle users including commuters, leisure, and family cycling groups. Ultimately when the routes are delivered, they will help to improve safety, including a reduction in vehicle speeds and contribute towards an increased number of trips in the area by pedestrians and cyclists.

The scheme is aligned with National Policy and is in keeping with the objectives of the Meath County Development Plan and Navan Development Plan. The general arrangement of the proposed cycle and pedestrian route is illustrated in Figures 1-2 and 1-3 below.

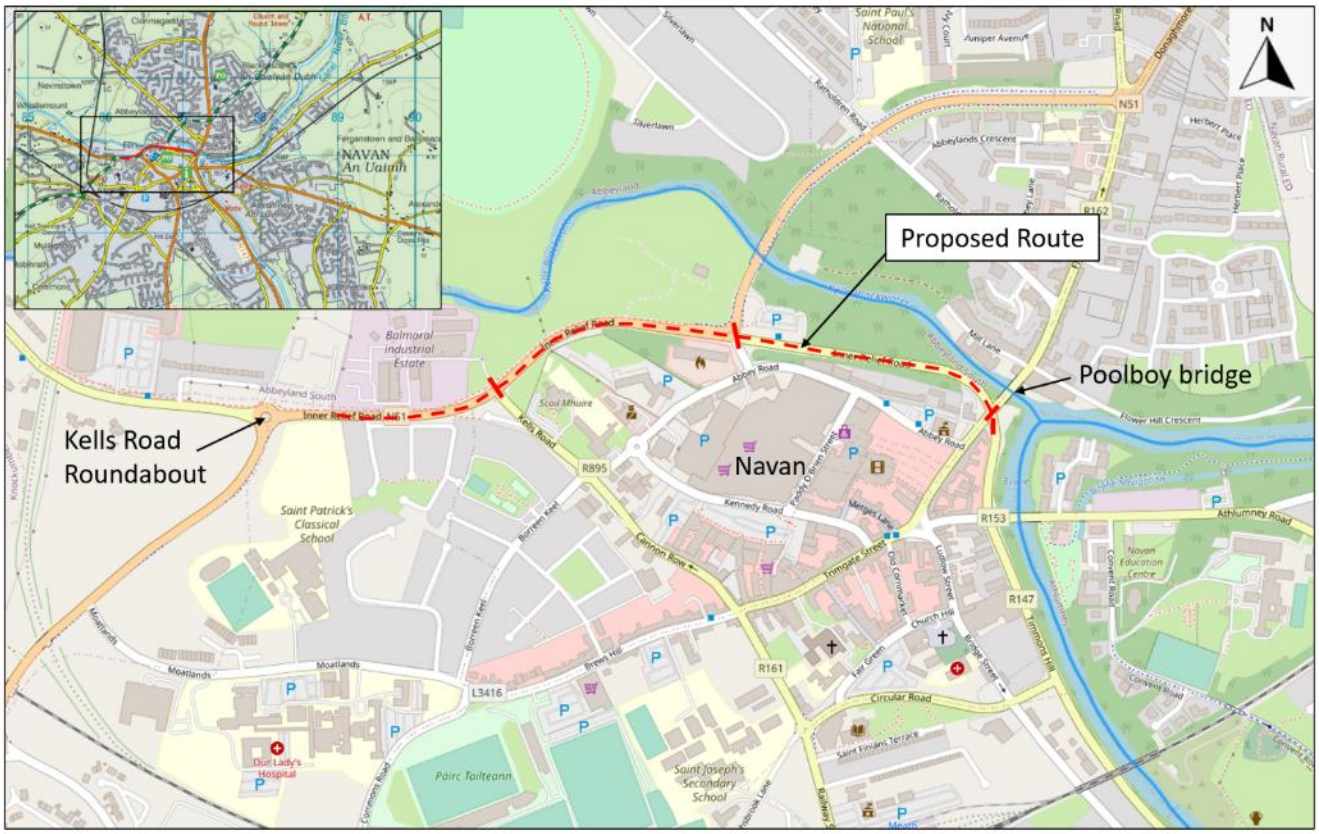
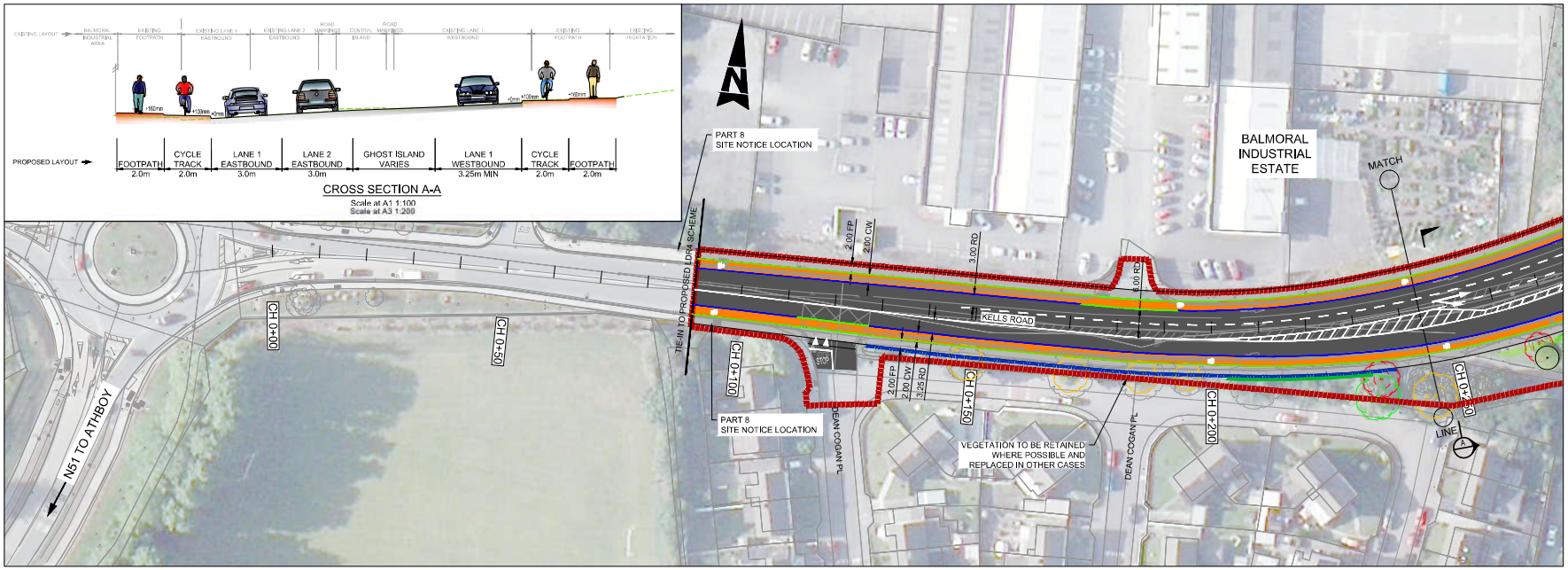
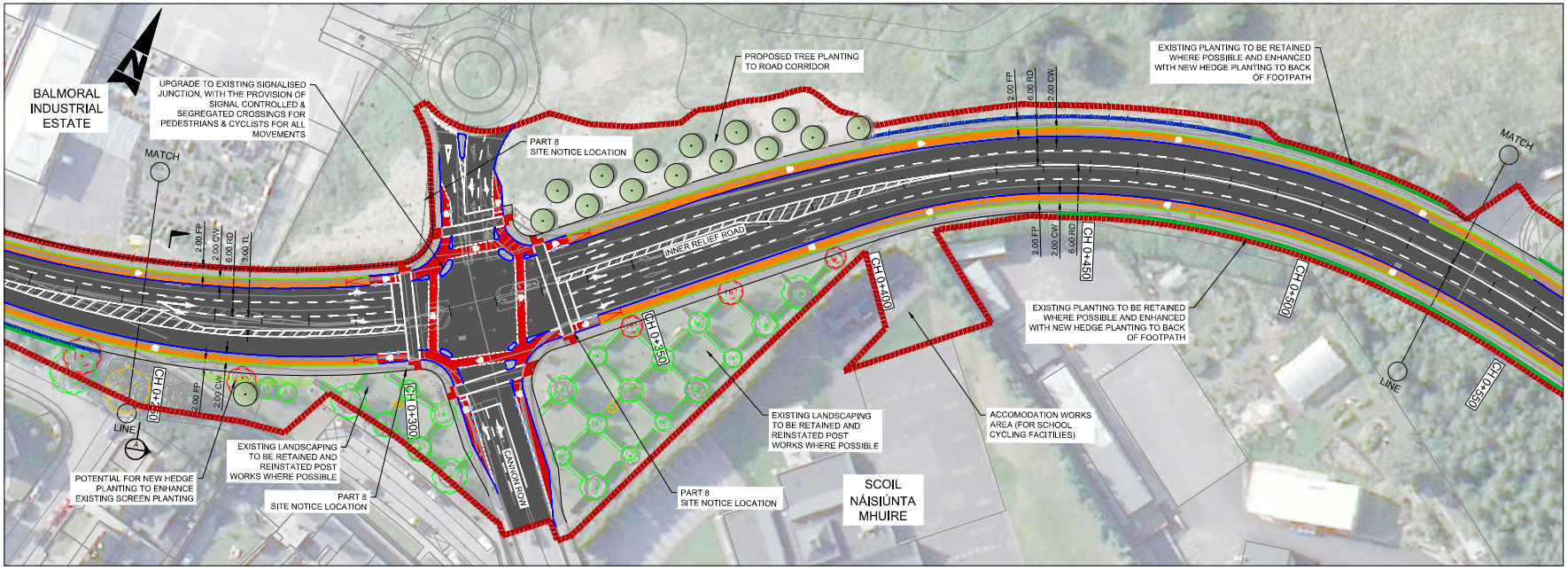


Figure 1-1 - Project Location.





GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
2. ONLY WRITTEN DIMENSIONS SHALL BE USED: NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS
3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM
4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR
5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION

LEGEND:

- SITE BOUNDARY
- BEVELLED ENTRANCE KERB
- 100mm CONCRETE KERB
- 60mm UPSTAND KERB
- 25mm UPSTAND KERB
- KASSEL KERB
- FLUSH KERB
- RETAINING FEATURES
- CARRIAGEWAY
- PROPOSED FOOTPATH
- PROPOSED SHARED SPACE
- PROPOSED RAISED CYCLE TRACK
- PROPOSED ON ROAD CYCLE LANE
- PROPOSED TACTILE PAVING (CONTROLLED)
- TACTILE PAVING (UNCONTROLLED JUNCTION)
- PROPOSED TACTILE PAVING (CORDUROY)
- PROPOSED GRASS VERGE
- PROPOSED OVER RUN AREA
- EXISTING GRASS VERGE TO BE RETAINED
- EXISTING FOOTPATH TO BE RETAINED
- EXISTING KERB TO BE RETAINED
- PROPOSED CYCLE RAMP
- PROPOSED BUS SHELTER
- DELINEATOR POSTS
- CW CYCLEWAY
- FP FOOTPATH
- RD ROAD
- SA SHARED AREA
- TL TURNING LANE
- POTENTIAL FOR NEW HEDGE PLANTING
- LENGTH OF VEGETATION CLEARANCE
- PROPOSED TREES

EXISTING TREES:

- TO BE RETAINED (WITHOUT MITIGATION MEASURES)
- TO BE RETAINED (WITH MITIGATION / MAINTENANCE MEASURES)
- TO BE REMOVED (AS A RESULT OF THE PROPOSED SCHEME)

NOTES :

1. PROPOSED CYCLE TRACKS, CYCLE LANES TO BE 2.0m WIDE UNLESS NOTED OTHERWISE.
2. PROPOSED FOOTWAYS SHALL BE 2.0m WIDE UNLESS NOTED OTHERWISE.

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Figure 1-2 – General arrangement, western section of the project site.

Rev	Description	By	Date	Chk'd	Auth
B	PART 8 PLANNING (FINAL)	DB	02.11.22	JMC	ST
A	PART 8 PLANNING (DRAFT)	DB	27.10.22	JMC	ST
-	PART 8 PLANNING (DRAFT)	CL	28.09.22	JMC	ST

ATKINS
Member of the SNC-Lavalin Group
Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin Tel (+353) 01 810 8000 Fax (+353) 01 810 8001
Unit 2B, 2200 Cork Airport Business Park, Cork Tel (+353) 021 429 0300 Fax (+353) 021 429 0360
1st Floor Technology House Parkmore Technology Park, Galway Tel (+353) 091 786 050 Fax (+353) 091 779 830

Client: MEATH COUNTY COUNCIL

Project: NAVAN CYCLE SCHEME
R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Purpose: PART 8 PLANNING

Title: GENERAL ARRANGEMENT SHEET 1 OF 2

Original Scale	Design/Drawn	Checked	Authorised
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Status: P

Drawing Number: 5214376 / HTR / DR / 0121

Rev: B

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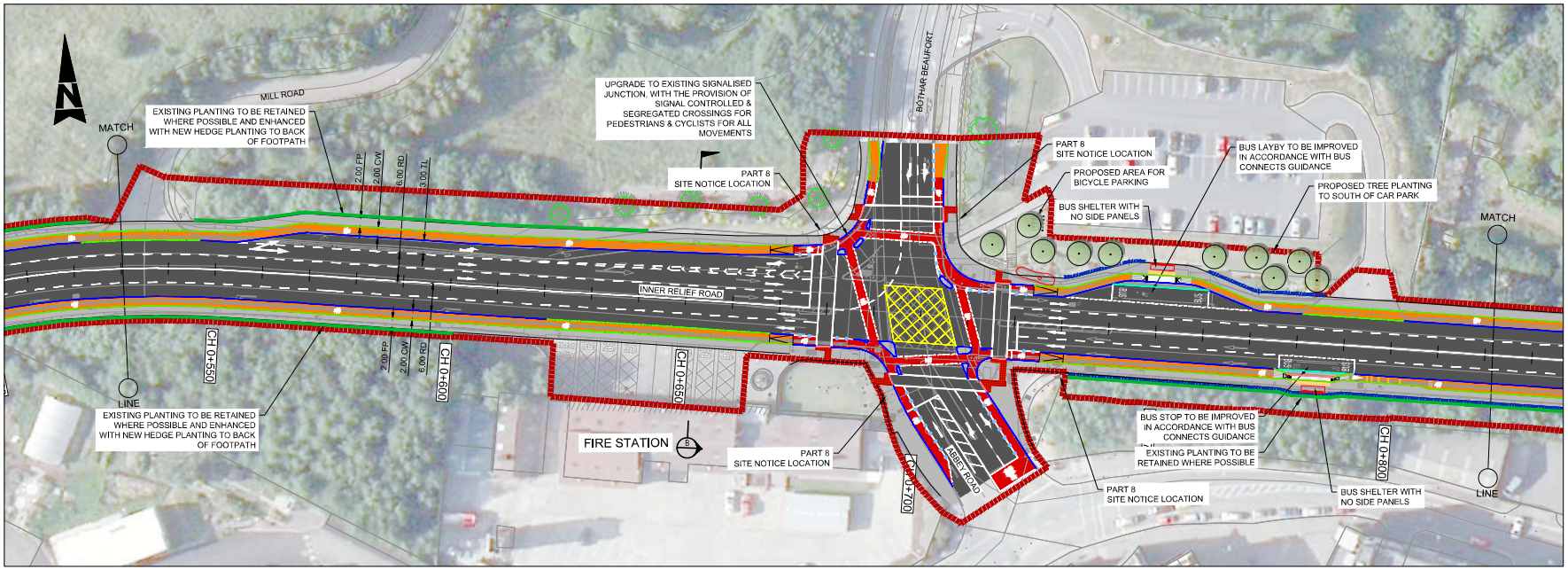

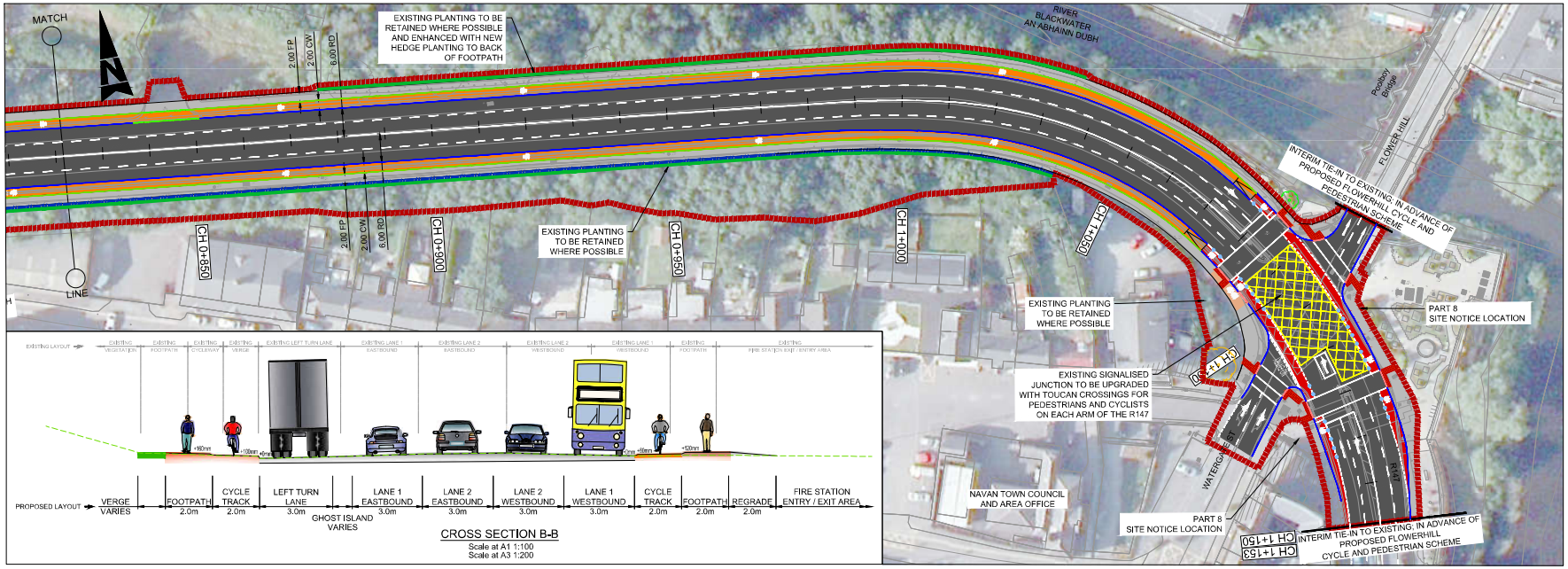

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Scale at A3 1:200

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National Transport Authority

Figure 1-3 - General arrangement, eastern section of the project site.

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A	PART 8 PLANNING (DRAFT)	DB	27.10.22	JMC	ST
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Member of the SNC-Lavalin Group
Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin Tel (+353) 01 810 8000 Fax (+353) 01 810 8001
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1st Floor Technology House Parkmore Technology Park, Galway Tel (+353) 091 786 050 Fax (+353) 091 779 830

Client: MEATH COUNTY COUNCIL

Project: NAVAN CYCLE SCHEME
R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Purpose: PART 8 PLANNING

Title: GENERAL ARRANGEMENT SHEET 2 OF 2

Original Scale	Design/Drawn	Checked	Authorised
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Rev: B

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1.1. Construction Methodology

The Construction period for the proposed scheme is 12 months and can be summarised as follows.

1.1.1. Cycle path Construction

Works will commence with the clearance and off-site removal of redundant road signage, boundary treatment, road surface materials and topsoil. The works will be undertaken using a combination of operatives using hand tools, mechanical excavators and dumper trucks. To facilitate the main works, underground utilities which conflict with the main works will be uncovered using mechanical excavators and hand digging where appropriate. The need for significant utility diversions is not envisaged as part of the works; instead a 'lower and protect' approach will be favoured. This is likely to be restricted to locations where the walking and cycling facilities cross or interface with public roads.

Following the diversion of utilities, the initial pavement and cycle track construction phase will be undertaken. This will include the excavation and removal of the existing stone, soil, concrete ad bitumen materials along the route followed by the installation of new path and track base materials. Excavations will be largely undertaken by mechanical means, with any spoil arisings to be removed off site or reused locally where testing confirms its suitability. The proposed project involves an anticipated maximum excavation depth of 0.5m bgl (below ground level) to facilitate the base layers for the proposed footpaths / pavements and the ducting for the signalling associated with the scheme. The base layers of the pavement and track are to be made of compacted stone materials.

The works will also involve constructing the civil engineering elements required to facilitate the commissioning of the traffic signals and the public lighting elements at the latter stages of construction. Service chambers and underground duct sets will be laid within trenches and backfilled with granular material. Signal poles and public lighting columns will be erected, and ducting connections will be made to the base of each pole unit. Following completion of the lighting elements, the final pavement surface course will be laid using an asphalt paving machine followed by compaction using a vibrating roller.

1.1.2. Road Resurfacing

The scheme also involves the resurfacing of the roadways and painting of new road markings within the scheme footprint. The existing road surface course layer will be planed-out throughout the entire scheme extents with planings being removed off site. The planed-out area will be replaced with Hot Rolled asphalt (HRA) or Stone Mastic Asphalt (SMA) surface course ca. 40mm - 60mm thick. Additional to this, and where required, additional bituminous layers may be replaced in localised areas where there is evidence of pavement failure. It is not envisaged that the foundations layers (i.e. sub-base or capping) will require replacement. Following road resurfacing new road markings will be painted on road surfaces.

1.1.3. Footpath Construction

The construction of the cycleway will also involve relocation and installation of footpaths and kerbs adjacent to the cycleway. Footpaths will be constructed similar to the cycleway; excavation of existing footpath with materials removed off site to a licenced waste facility; excavations along footpath alignment to depths of maximum 500mm; infill of footpath subbase materials (compacted stone) and the pouring of concrete footpaths in shuttered sections. A ca. 60mm high poured concrete kerb will also be installed along the footpath edge.

1.1.4. Drainage Alterations

Drainage works, which will run in tandem with the pavement construction phase, are considered to be minimal and restricted to areas where the scheme interfaces with the public road. The drainage works at these locations are limited to the relocation of existing road gullies with the larger existing road drainage infrastructure (i.e. carrier drains) not being altered or adjusted. During these works the main carrier drains will be isolated / blocked off from works activities / work zones to facilitate the relocation of drainage gullies.

Typically, drainage will be provided using new gullies (relocated to alongside the proposed kerb positions) connecting to the existing surface water drainage infrastructure / main carrier drain. The new footpaths and cycle

tracks will generally slope towards the road in order to minimise the need for additional drainage collection measures specific to these facilities. Alternatively, and where the proposed scheme results in a marked increase in catchment area (due to an increased hard-standing area), sections of footway and/or cycle track will be constructed using either porous surfacing; or where appropriate, the cross-fall will fall towards an adjacent grass verge (thus not discharging into the surface water network). The existing surface water drainage network along the roadways of the project site are assumed to outfall to the neighbouring River Blackwater.

1.1.5. Verge Reinstatement

For soft landscaping areas topsoil profiles will be graded to tie into the new pavement levels followed by grass seeding. The top soiling and seeding will be undertaken using a combination of mechanical excavator, tractor unit drawing a rotavator / rake / seed spreader and also operatives using hand tools for areas where machinery access is unavailable.

There will be no demolition works associated with this project.

1.1.6. Traffic Management

The construction of the cycleway will be carried out in short segments (ca.100-200m in length) on one side of the roadway at a time to allow for continued traffic flow and will progress along the roadways, as such individual work zones will be relatively small.

1.1.7. Junctions

Three of the scheme's junctions will be fully segregated. This will feature cyclists passing through the junction on their own cycle tracks with dedicated traffic signal phases which are separate to the vehicular phasing and separate to the pedestrian phasing (where applicable). The proposed junctions are to include kerb upstands throughout (except at crossing points), providing vertical segregation and thereby increasing protection to the cycle tracks. The Poolboy Bridge Junction will feature on road cycle lanes, as shown on the Design Drawings (Figure 1.3).

1.1.8. Site Compound

It will be the responsibility of the Contractor to determine a suitable location for the site compound within the proposed development area, but away from any identified environmental sensitive receptors (watercourses, designated sites etc.), so as to avoid potential impacts to the environment and the general public. The final proposed site compound location will be subject to Client approval and will not be within 25m of the River Blackwater or the River Boyne.

1.1.9. 1.1.9. Scheme connectivity

The western extent of the proposed Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road will connect with another proposed and permitted scheme; the LDR4 Scheme at the Kells Road Roundabout.

2. Scope of Study

The aim of this report is to provide supporting information to assist the competent authority to carry out an AA determination with respect to the proposed Scheme.

2.1. Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 – 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservations of an EU-wide network of sites known as European sites. European sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects that could potentially affect European sites. Article 6(3) establishes the requirement for Appropriate Assessment: -

> *"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."*

Article 6 (4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan or project will adversely affect a European site. Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures need to be addressed in this case. Article 6(4) states: -

> *"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."*

2.2. Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission (EC, 2001; 2018), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009), National Parks and Wildlife Service in 2018[1] (NPWS 2018) and the Office of the Planning Regulator (2021). These guidance documents set out a staged approach to complete the AA process and outline the issues and tests at each stage. The stages outlined below are taken from the guidance document *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DEHLG, 2009) and Office of the Planning Regulator; *Appropriate Assessment Screening for Development Management* (2021).

[1] https://www.npws.ie/development-consultations

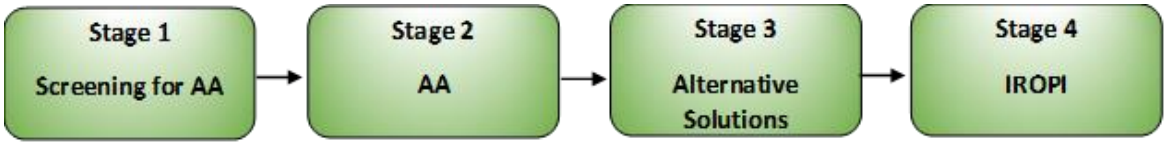

Figure 2-1 - Appropriate Assessment Process (Source: DEHLG, 2009).

2.2.1. 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, and
ii. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Appropriate Assessment.

2.2.2. Appropriate Assessment

Appropriate Assessment considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any necessary mitigation measures.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where sufficient mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to the consideration of alternative solutions.

2.2.3. Alternative Solutions

This examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a European site. The process must return to AA as alternatives will require assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, it is necessary to examine whether there are imperative reasons of overriding interest (IROPI).

2.2.4. IROPI

This examines whether there are imperative reasons of overriding public interest for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed, of which the Commission must be informed.

The AA process only progresses through the full process for certain plans and projects. For example, for a project not connected with the management of a European site and where no likely significant effects on a European site in view of its conservation objectives are identified, the process stops at Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty (EC, 2021).

3. Methods

3.1. Guidance documents

The Screening for Appropriate Assessment was prepared with reference and due consideration to the following documents and case law, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (Habitats Directive);
- Statutory Instrument No. 477/2011 — European Communities (Birds and Natural Habitats) Regulations 2011;
- National Parks and Wildlife Service - Development Consultations[2] (NPWS 2018);
- European Commission (2021). Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
- European Commission (2018). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC;
- European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
- Department of the Environment, Heritage and Local Government (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities;
- National Roads Authority (2009). Guidelines for Assessment of Ecological Impacts of National Roads Scheme;
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01; and,
- Case: ; C-323/17 People Over Wind & anor. V. Coillte; C-461/17 Holohan v An Bord Pleanála; Kelly v An Bord Pleanála & anor [2019] IEHC 84; Eco Advocacy CLG v An Bord Pleanála & anor [2021] IEHC 265, and other relevant court rulings and case law.

3.2. Desk Study

A desk study was carried out to collate information available on European sites in the vicinity of the proposed scheme. These areas were viewed using Google Earth, Google maps[3] and Bing maps[4] (last accessed on 27/09/2022).

The National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) online databases were reviewed concerning European sites and their features of interest in the vicinity of the proposed scheme.

The Environmental Protection Agency (EPA) mapping[5] system was used to identify any hydrological connection between the proposed project and European sites.

Locations and boundaries of all European sites were identified and reviewed using the NPWS online map viewer.

[2] https://www.npws.ie/development-consultations
[3] https://www.google.ie/maps
[4] http://www.bing.com/maps/
[5] https://gis.epa.ie/EPAMaps/

Desktop information on relevant European sites were reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the NPWS online map viewer, and published information and unpublished reports on the relevant European sites.

Relevant planning information for the surrounding area was reviewed using the planning enquiry systems of Meath County Council. Search criteria were implemented to determine whether such projects or plans would not be relevant to this study. This reviewed information was used to determine potential cumulative impacts from other plans / projects with the proposed works.

3.3. Statement of Authority

The Screening for Appropriate Assessment report was prepared by Ben Whitley and Colin Wilson. Paul O'Donoghue provided peer review and support.

Ben Whitley has a MSc in Environmental Resource Management and a BSc in Geography. A focus of Ben's work to date has been the preparation of Environmental Impact Assessment Reports and Appropriate Assessment reports. Ben assisted with the collation of background information to inform this report.

Colin Wilson has a BSc (Hons) in Environmental Science. He has over 14 years working in the fields of ecology and environmental management. He is a Senior Ecologist with experience in ecological surveying, environmental assessment, on-site ecological supervision and mitigation. He has experience on multiple road projects regarding all elements of surface and groundwater management, monitoring, sampling and associated reporting. Colin also has a broad range of experience in invasive species management, biosecurity and control. Colin has prepared AA screening reports, Natura Impact Statements and has also been involved in the development of Environmental Operating Plans and Construction Environmental Management Plans for a number of national infrastructure projects.

Paul O'Donoghue has a BSc (Zoology), MSc (Behavioural Ecology) and a PhD in avian ecology and genetics. Paul is a chartered member of the Society for the Environment (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Paul has over 18 years' experience in ecology; including extensive experience in the preparation of Habitat Directive Assessments / Natura Impact Statements (i.e. Appropriate Assessment under Article 6(3) of the EU Habitats Directive). Paul carried out the technical review of this report.

4. Existing Environment

The cycle route is predominately within the hardstanding areas of the existing road network and adjacent footpaths, with minor portions within landscaped areas. The proposed cycle network runs predominately along the N51 and R147 with small sections extending onto R895 in the western section of the scheme and Flower Hill and Watergate Street at the eastern section of the scheme. The storm water drainage infrastructure along these urban roadways, within the footprint of the proposed scheme, is assumed to outfall to the River Blackwater and or River Boyne as a review of Irish Water infrastructure datasets does not identify any combined sewer along these roadways.

The proposed route does not cross any watercourses. The project site is predominantly aligned along the N51 and R147 roadway which are for eastern sections directly adjacent to the River Blackwater in the area of Poolboy Bridge. The River Blackwater is within the River Boyne and River Blackwater SAC (002299) and the River Boyne and River Blackwater SPA (004232). At the western section, the SAC boundary is ca. 50m from the proposed scheme, at the eastern section (near Poolboy Bridge) the SAC boundary is aligned alongside the proposed scheme. The SPA boundary is generally closer to the corridor of the River Blackwater and is further away from the proposed scheme.

There are no National Heritage Areas (NHA's) or proposed National Heritage Areas (pNHA's) near the project site. The closest pNHA to the proposed scheme is Boyne Woods pNHA located ca. 4.3km northeast of the project site.

There are 2 no. EPA watercourses within the vicinity of the cycle route; the River Blackwater (EPA Code: IE_EA_07B011800) is aligned north of the proposed scheme and the River Boyne (EPA Code: IE_EA_07B041810) is located to the south east of the proposed scheme. The River Blackwater flows into the River Boyne ca. 50m east of Poolboy Bridge.

The Blackwater River has been assigned a 'Poor' WFD status and is 'At Risk' of failing to meet relevant WFD objectives by 2027.

The River Boyne has been assigned a 'Good' WFD status upstream of the confluence point with the Blackwater River with the downstream stretches assigned a 'Moderate' WFD status for the 2013-2018 monitoring period. The Boyne is partially identified as being 'Not at Risk' of failing to achieve relevant WFD objectives by 2027 with the risk status of the river downstream of the project site noted to be under 'Review' (EPA, 2022).

Biological analysis is undertaken along the River Blackwater by the EPA at 2 no. locations within the project site in Navan town; at the Poolboy Bridge (Station ID; Slane Road Bridge) and also ca. 300m upstream from Poolboy Bridge (Station ID; 100m d/s New Bypass Bridge). EPA monitoring identifies a Q-value of 3 in 2020 at Poolboy Bridge indicating a poor biological status. Monitoring downstream of New Bypass Bridge identifies a Q-value of 3-4 in 2020 indicating a moderate biological status.

The proposed scheme is within the Boyne Water Framework Directive (WFD) catchment area and the Boyne sub-catchment area. A review of Geological Survey Ireland datasets[6] identifies the project site as predominately being within areas of 'Extreme' groundwater vulnerability with a small portion of 'High' groundwater vulnerability noted within the western portion of the scheme. An area of 'Rock at or near Surface or Karst' is also directly adjacent to the route near Mill Road.

Table 4-1 below outlines Water Framework Directive 2013-2018 water quality details for the EPA watercourses (Source: EPA[7]).

[6] https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228
[7] https://gis.epa.ie/EPAMaps/

Table 4-1 - WFD details of watercourses near the project site.

Watercourse	Code	Order	River Waterbody WFD Status (2013-2018)	River Waterbody Risk	Q Value
River Blackwater	IE_EA_07B011800	5	Poor	At Risk	3-4 / Moderate status at New Bypass Br (2020) 3 / poor status at Slane Road Bridge (2020)
River Boyne	IE_EA_07B041810	6	Good	Not at Risk	3-4 / Moderate status at Boyne Railway Bridge (2003) 3-4 / Moderate status at Kilcarn Old Bridge (2020)

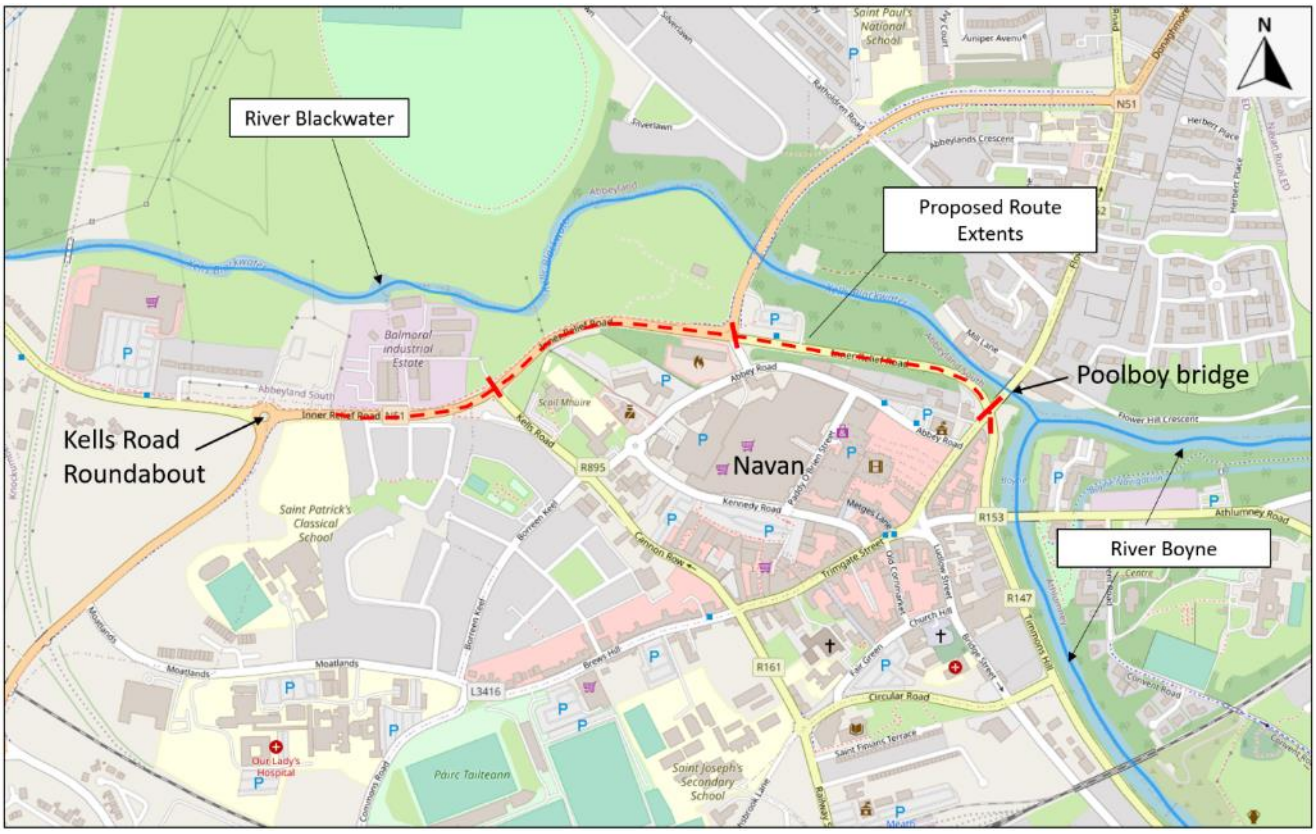

Figure 4-1 - Watercourses within close proximity to the project site.

5. Appropriate Assessment Screening

5.1. Connectivity to European Sites

The 'zone of influence' (ZoI) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2019).National Parks and Wildlife Service and Office of the Planning Regulator guidance[8] advises that the potential 'zone of influence' must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.

Thus, given the nature, scale and extent of the proposed project, the potential zone of influence will consider European sites with regard to the location of a European site, the QIs of the site and their potential mobility outside that European site, the Cause-Pathway-Effect model and potential environment effects of the proposed project.

The zone of influence of the proposed project is limited to those European sites directly adjacent to the red line boundary of the proposed project. The zone of influence of the proposed project also includes those European sites with potential indirect connectivity through the following pathways: -

- Hydrological – effects from surface water quality; and,
- Hydrogeological – effects from groundwater.

The proposed project is aligned directly alongside the River Boyne and River Blackwater SAC (002299) and River Boyne and River Blackwater SPA (004232) in the area of Poolboy Bridge on the eastern side of the project site. The proposed route extents are limited to the roadway on the southern side of Poolboy Bridge and the majority of this bridge structure crosses / overlaps with the River Boyne and River Blackwater SAC and SPA. Given that the project is limited to a small section of roadway on the south side of the road bridge spanning the River Blackwater, the project is not considered to lie directly within the River Boyne and River Blackwater SAC/SPA (Refer to Figure 5.1 and 5.2 below).

The Boyne Coast and Estuary SAC (001957) and Boyne Estuary SPA (004080) are located ca. >33km downstream from the project site along the River Boyne and as such there is potential, but extremely remote, hydrological connectivity to these 2 no. European sites.

Tables 5-1 and 5-2 below detail the European sites which are within the potential ZoI of the proposed project. and lists their associated qualifying interests. Figures 5-1 and 5-2 depict the locations of the European Sites within the potential ZoI of the proposed project.

[8] DoEHLG (2009*). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of Environment, Heritage and Local Government, Dublin, Ireland.
OPR (2021) Appropriate Assessment Screening for Development Management. OPR Practice Note PN01. Office of the Planning Regulator. Dublin, Ireland.

Table 5-1 - SAC's within the potential Zone of Influence of the proposed project.

Site Name and Code	Approximate Distance from project location	Features of Interest	Within the ZoI
River Boyne and River Blackwater SAC (002299)	Directly adjacent to SAC	• Alkaline fens [7230] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Lampetra fluviatilis* (River Lamprey) [1099] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355]	Yes. The proposed project is located immediately adjacent to River Boyne and River Blackwater SAC. Potential impacts on this European site will be discussed below.
Boyne Coast and Estuary SAC (001957)[9]	Ca. >25km direct line distance. Ca. >33km downstream via River Boyne.	• Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	No. There is no potential for direct impacts on this SAC given the location of the project site. Whilst there is a potential hydrological link to Boyne Coast and Estuary SAC, this is via >33km of the River Boyne. Many of the Qualifying Interest habitats; i.e. drift line vegetation, and dunes systems are terrestrial in nature and cannot be impacted via hydrological pathways or as a result of a change in surface water quality. Given the nature and scale of the project works, the location of the scheme predominantly along urban roadways, and the limited connectivity between the project site and the River Boyne, no likely significant impacts are anticipated on the surface water quality of the River Boyne from the construction of the proposed scheme. In addition, given the distance between the project site and the SAC, the volume of intervening water within the River Boyne and the dilution and dispersal that would occur, it is not likely that any pollution event which the project could potentially generate could result in significant impacts to the QI habitats of Boyne Coast and Estuary SAC which are susceptible to changes in surface water quality. This coupled with the scale and nature of proposed works is such that there is not in fact a risk to Boyne Coast and Estuary SAC or its qualifying interests.

[9] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001957.pdf

Table 5-2 - SPA's within potential Zone of Influence of the proposed project.

Site Name and Code	Approximate Distance from project location	Features of Interest	Within the ZoI
River Boyne and River Blackwater SPA (004232)	Directly adjacent to SPA.	• Kingfisher (*Alcedo atthis*) [A229]	Yes. The proposed project is located immediately adjacent to River Boyne and River Blackwater SPA. Potential impacts on this European site will be discussed below.
Boyne Estuary SPA (004080)[10]	Ca. >25km direct line distance. Ca. >33km downstream via River Boyne.	• Shelduck (*Tadorna tadorna*) [A048] • Oystercatcher (*Haematopus ostralegus*) [A130] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Lapwing (*Vanellus vanellus*) [A142] • Knot (*Calidris canutus*) [A143] • Sanderling (*Calidris alba*) [A144] • Black-tailed Godwit (*Limosa limosa*) [A156] • Redshank (*Tringa totanus*) [A162] • Turnstone (*Arenaria interpres*) [A169] • Little Tern (*Sterna albifrons*) [A195] • Wetland and Waterbirds [A999]	No This SPA is remote from the project site and as such direct impacts on the SPA are precluded. There is no potential for the proposed project to result in disturbance or displacement of QI bird species accommodated within the SPA. The project site is along roadways and as such there is no potential for ex-situ QI bird species to utilise the project site for roosting or foraging. While there is a hydrological link to Boyne Estuary SPA, this is via >33km of the Robinrath stream and the River Boyne. Given the nature and scale of the project works, the location of the scheme predominantly along urban roadways, and the limited connectivity from the project site to the River Boyne, no likely significant impacts are anticipated on the surface water quality of the River Boyne from the construction of the proposed scheme. In addition, given the distance between the project site and the SPA, the volume of intervening water within the River Boyne and the dilution and dispersal that would occur, it is not likely that any pollution event which the project could potentially generate could result in significant impacts to the QI wetland habitats of Boyne Estuary SPA. This coupled with the scale and nature of proposed works is such that there is not in fact a risk to Boyne Estuary SPA wetland habitats.

[10] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004080.pdf

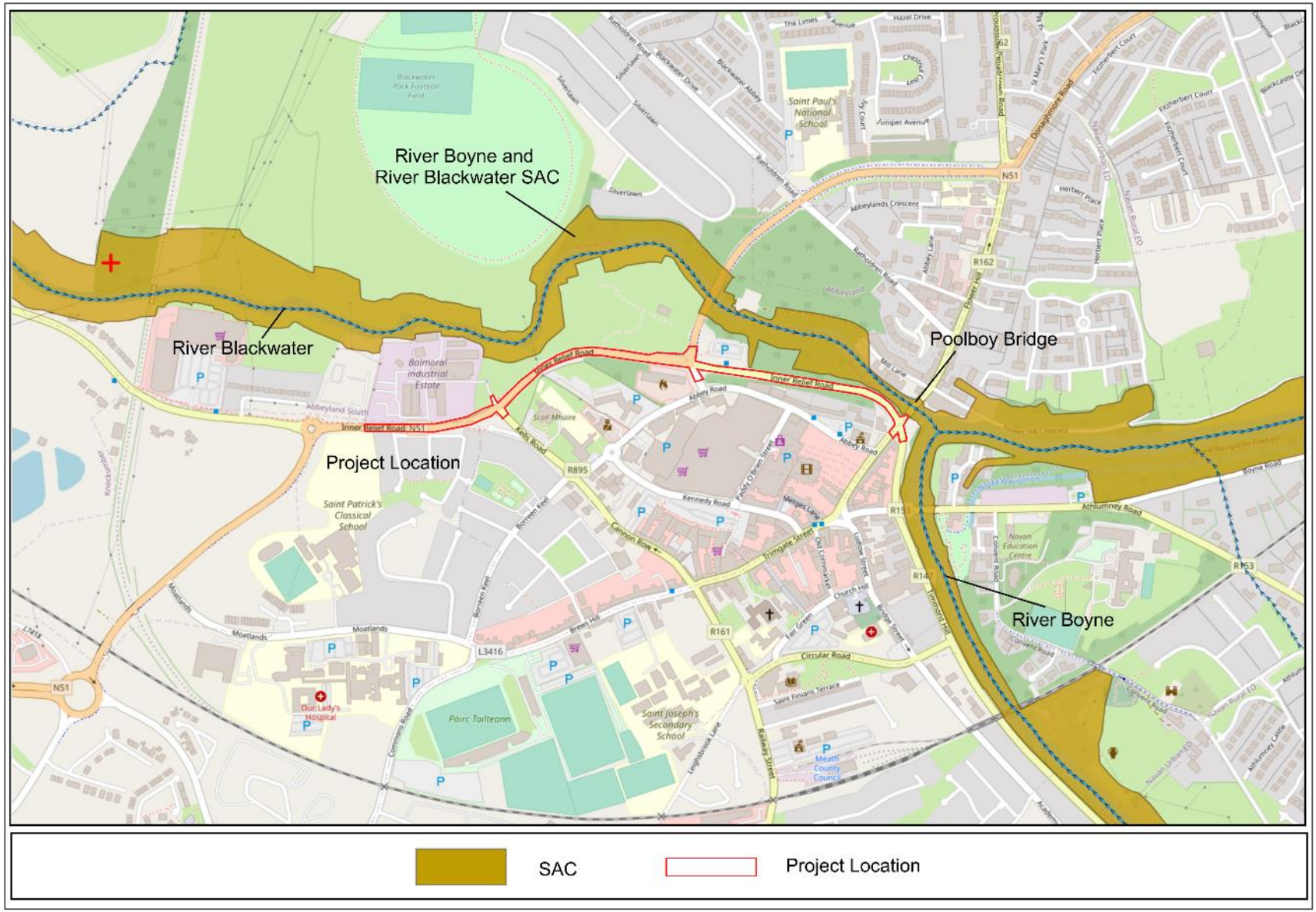

Figure 5-1 - SACs within the Zone of influence of the proposed project.

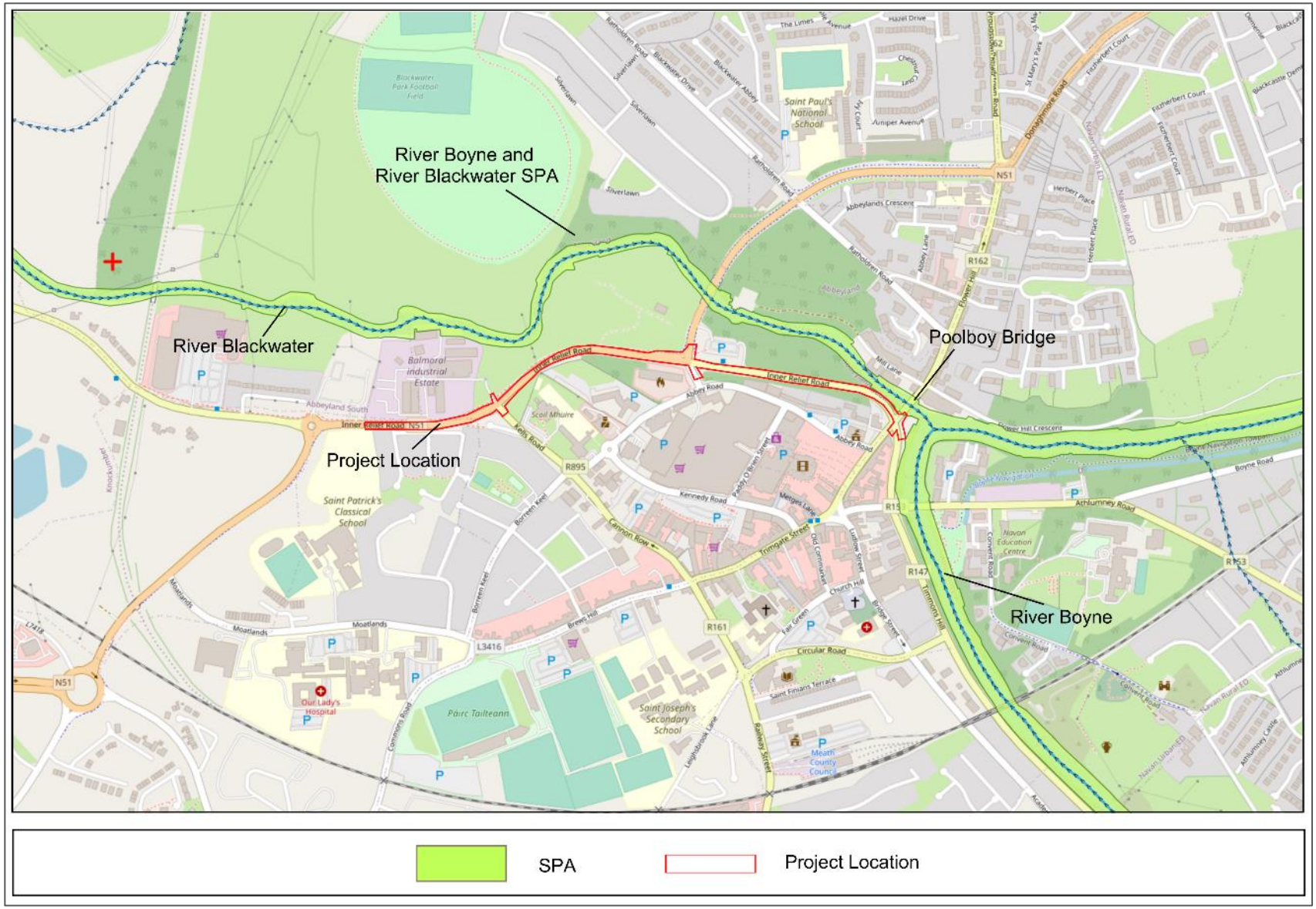

Figure 5-2 - SPAs within the zone of influence of the proposed project.

5.2. River Boyne and River Blackwater SAC

5.2.1. Site Synopsis

A synopsis of the SAC, as detailed by NPWS, is as follows[11]: -

> "*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 underlying geology is Carboniferous Limestone for the most part, with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site, including Slane, Navan, Kells, Trim, Athboy and Ballivor.*
>
> *The main areas of alkaline fen in this site are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly-drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*), and this last species also extends shorewards where a dense stand of Great Fen-sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex *spp. and Purple Moor-grass,* Molinia caerulea*), or one dominated by Black Bog-rush (*Schoenus nigricans*). An alternative aquatic/terrestrial transition is a floating layer of vegetation. This is normally based on Bogbean (*Menyanthes trifoliata*) and Marsh Cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum *spp.). Diversity of plant and animal life is high in the fen and the flora includes many rarities. Plants of interest include Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic stoneworts (*Chara *spp.) which are characteristic of calcareous wetlands.*
>
> *The dominant habitat along the edges of the river is freshwater marsh, and the following plant species occur commonly in these areas: Yellow Iris, Creeping Bent (*Agrostis stolonifera*), Canary Reed-grass (*Phalaris arundinacea*), Marsh Bedstraw (*Galium palustre*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*). In the wetter areas Common Meadow-rue (*Thalictrum flavum*) is found. In the vicinity of Dowth, Fen Bedstraw (*Galium uliginosum*), a scarce species mainly confined to marshy areas in the midlands, is common in this vegetation. Swamp Meadow-grass (*Poa palustris*) is an introduced plant which has spread into the wild (naturalised) along the Boyne approximately 5 km south-west of Slane. It is a rare species which is listed in the Red Data Book and has been recorded among freshwater marsh vegetation on the banks of the Boyne in this site. The only other record for this species in the Republic of Ireland is from a site in Co. Monaghan*."

5.2.2. Conservation Objectives

The Habitats Directive defines when the conservation status of the listed habitats and species is considered as favourable. The definitions it uses for this are specific to the Directive. In summary, they require that the range and areas of the listed habitats, and the range and population of the listed species, should be at least maintained at their status at the time of designation. Site-specific conservation objectives aim to define favourable conservation conditions for a particular habitat or species at that site.

Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows: -

[11] https://www.npws.ie/protected-sites/sac/002299

Favourable conservation status of a habitat is achieved when: -

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

The favourable conservation status of a species is achieved when: -

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for the River Boyne and River Blackwater SAC, to maintain the favourable conservation for each of the qualifying interests of the site, were published by NPWS (2021) (Version 1; 03/12/2021)[12].

5.3. River Boyne and Blackwater SPA

5.3.1. Brief Description of the River Boyne and River Blackwater SPA

A synopsis of the SPA, as detailed by NPWS, is as follows[13]: -

> *"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.*

[12] NPWS (2021). Conservation Objectives: River Boyne and River Blackwater SAC 002299. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
[13] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004232.pdf

5.3.2. Conservation Objectives

The conservation objectives for River Boyne and River Blackwater SPA[14] are to maintain or restore the favourable conservation status of habitats and species of community interests.

The favourable conservation status of a species is achieved when: -

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for River Boyne and River Blackwater SPA (NPWS, 2022)[15] is '*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'* i.e. Kingfisher.

5.4. Likelihood of Potential Impacts on European Sites

The available information on the European Sites within the potential ZoI of the proposed project was reviewed to establish whether or not the proposed project is likely to have a significant effect on the conservation objectives of these SACs/SPAs. The likelihood of impacts on the features of interest of European Sites identified in this report is based on information collated from the desk study, site plans and other available existing information.

The likelihood of impacts occurring are established in light of the type and scale of the proposed works, the location of the proposed works with respect to European sites and the features of interest and conservation objectives of the European sites.

This screening report is prepared following the Cause – Pathway – Effect model. The potential impacts are summarised into the following categories for screening purposes.

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect and secondary impacts do not have a straight-line route between cause and effect. It is potentially more challenging to ensure that all the possible indirect impacts of the project – in combination with other plans and projects - have been established. These can arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact. Disturbance to fauna can arise directly through the loss of habitat (e.g. displacement of qualifying interest species) or indirectly through noise, vibration and increased activity associated with construction and operation.

[14] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004232.pdf

[15] NPWS (2022). Conservation objectives for River Boyne and River Blackwater SPA [004232]. Generic Version 9.0. Department of Housing, Local Government and Heritage.

5.5. Identification of Potential Impacts on European Sites

5.5.1. River Boyne and River Blackwater SAC

The River Boyne and River Blackwater SAC covers a significant geographical area and the qualifying habitats and species for which they are designated are also spread widely throughout. An Appropriate Assessment screening, under Article 6(3) of the Habitats Directive, should be appropriate to assess the potential level of impact, the likely receptors, and in the case of water quality, connectivity between the site and the SAC. Therefore, designated SAC features which have no potential of being impacted by the proposed project, either because they do not occur within the area likely to be affected or because of distance from the works areas of the proposed project, are listed as such below. Table 5-3 below presents an overview of the potential for impacts on the habitats and species listed as features of interest within the SAC.

Table 5-3 - Review of qualifying interests of River Boyne and River Blackwater SAC.

Habitat / Species	Comment	Within the ZoI
Alkaline fens [7230]	Alkaline fen habitats within the SAC are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough all of which are remote from the project site (>20km according to NPWS site documentation[16]). There is no direct or indirect connectivity to this habitat from the proposed project. The proposed project does not have the potential to affect this habitat. There will be no residual impacts on this habitat and the proposed project will not have an adverse effect on the integrity of this habitat either during the construction or operational phases.	No
Alluvial forests *with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* [91E0]	Alluvial forest habitats within the SAC are located on Boyne River Island west of Drogheda ca. 20km from the project site. Alluvial forest habitat does not occur along the River Boyne next to the project site. There is no direct or indirect connectivity to this habitat from the proposed project. The proposed project does not have the potential to affect this habitat. There will be no residual impacts on this habitat and the proposed project will not have an adverse effect on the integrity of this habitat either during the construction or operational phases.	No
River Lamprey (*Lampetra fluviatilis*) [1099]	This species has the potential to be affected should the proposed project result in a deterioration in water quality within the watercourses near the project site.	Yes
Salmon *(Salmo Salar) [*1106]	This species has the potential to be affected should the proposed project result in a deterioration in water quality within the watercourses near the project site.	Yes
Otter (*Lutra lutra)* [1355]	This species has the potential to be affected should the proposed project result in impacts to aquatic prey species as a result of a deterioration in water quality within the watercourses near the project site.	Yes

[16] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY002299.pdf

5.5.1.1. Construction Phase

Direct Impacts

The proposed project does not necessitate any in-stream works or works directly beside the waterbody of the River Blackwater and all construction activities will be confined to the hard standing surfaces of urban roadways and pathways. As such the proposed project will not result in any direct impacts on the Qualifying Interest species; Atlantic salmon, River Lamprey or otter.

Indirect Impacts

Project works are occurring directly adjacent to the SAC boundary on the eastern extents of the project site in the area of Poolboy Bridge. Given the proximity of the construction activities to the SAC, the potential for construction activities to result in a deterioration in the water quality of the River Blackwater must be considered.

The only potential for impact to the water quality of the River Blackwater is via contaminated surface water / storm water run-off from work sites (e.g. silt laden waters after heavy rainfall) or an accidental spillage emanating from work sites (e.g. cementitious materials or hydrocarbons from machinery). The potential for contaminated run-off or pollutants from work sites to directly discharge to the SAC can only occur in 1 no. ca. 30-40m section of the route near Poolboy Bridge as the remainder of the project site is remote from the river corridor. The potential for run-off or spillage of contaminating materials from work sites to reach the River Blackwater in the area of Poolboy Bridge is, however, extremely limited given there are walls and dense riverbank vegetation separating the work sites from the river.

Given the nature, scale and the short duration of works in this particular area of Poolboy Bridge there is limited potential for large scale or persistent run-off, spillages or discharges from work sites. In addition, any potential run-off or spillage that could potentially be generated from this small area of the project site will be impeded from reaching the river by the intervening barriers between work sites and the SAC (walls and dense vegetation). It is considered that construction activities will not give rise to discharges which could reach the river or which could affect the water quality of the river. Given the nature, scale, duration and location of works there will be no likely significant effects on qualifying interest species; lamprey, salmon or otter in view of their conservation objectives.

The only other potential indirect hydrological connectivity to the SAC is via the existing surface water drainage infrastructure within the project site roadways (including Poolboy bridge area) which is assumed to outfall to the River Blackwater. The construction of the scheme will be carried out in short segments (ca.100-200m in length) on one side of the road at a time to allow for continued traffic flow and will progress along the roadways, as such individual work zones will be relatively small. During the construction phase, within these relatively small works zones, the existing carrier drain will be isolated and blocked off from the works activities / works area. As such significant impacts via the road drainage network which could affect the water quality of the River Blackwater are not anticipated due to the isolation of the drainage network from the works. The isolation of the road drainage infrastructure described in this section will be a requirement in the Contractor's Temporary Works Design.

As excavation depths involved in the construction of the proposed scheme will be relatively shallow (ca. 0.5m bgl) and will be within the made ground of roadways and footpath it is unlikely that groundwater would be encountered; significant impacts on local groundwater are not therefore anticipated. Therefore, there will be no likely significant effects on the River Boyne or River Blackwater SAC from the construction works through hydrogeological pathways.

5.5.1.2. Operational Phase

The proposed scheme is located along Navan town's busy urban roads. The usage of the cycle scheme will not result in an increase in noise levels within the area of the project site relative to ambient levels and as such Qualifying Interest species; such as otter will not be affected from noise or disturbance related impacts by cycleway usage. Qualifying Interest aquatic species; Atlantic salmon and river lamprey are not susceptible to noise related impacts from urban roadways and therefore will not be directly or indirectly affected by the usage of the cycle scheme.

No significant increase in lighting is proposed within the design of the proposed scheme, as such lighting will not increase the existing level of lighting along Navan's urban roadways. Given there is no increase in lighting levels,

Qualifying Interest species; otter will not be affected from disturbance related impacts as a result of additional night time lighting.

The footprint of the scheme is located almost entirely along existing hard standing areas (roadway and footpaths) and as such there will be no significant changes or increases to surface water drainage / storm water run-off rates as a result of the project. Given that there will be no material changes to existing drainage conditions within the project site, there will be no likely significant effects on the water quality or hydrological regime of the River Boyne nor on the Qualifying Interest species; Atlantic salmon, river lamprey or otter from surface water run-off during scheme usage.

5.5.2. River Boyne and River Blackwater SPA

5.5.2.1. Construction Phase

The River Boyne and River Blackwater SPA is designated for Kingfisher. There are no works proposed along the watercourse of the River Boyne or within the riparian habitats along the river banks. There will be no direct physical loss, disturbance or damage to known or suitable foraging, roosting or nesting habitat. Therefore, there will be no direct impacts on Kingfishers within the SPA.

The project site is within the busy urban roadways of Navan town and there are buildings, structures, treelines dense vegetation providing a buffer between the scheme works areas and the River Boyne during construction. It is considered that during construction of the scheme, any increase in noise in the area of the project will be temporary and negligible relative to ambient levels. Given the location, duration and scale of the proposed scheme, there will be no likely significant effects in terms of disturbance to Kingfishers within the SPA during the construction phase.

5.5.2.2. Operational Phase

The proposed scheme is located along Navan town's busy urban roads. Buildings, structures, treelines and dense vegetation exist alongside the R147 Kells Road providing a buffer between the scheme and the River Boyne during the operational phase of the proposed scheme. Therefore otters will not be affected by anthropogenic disturbance. The usage of the cycle scheme will not result in an increase in noise levels within the area of the project site relative to ambient levels and as such Qualifying Interest species; kingfisher will not be affected from noise or disturbance related impacts by cycleway usage.

5.6. Cumulative Impacts

Available Meath County Council planning records were reviewed with respect to other projects which have the potential to occur during the same period as the proposed project to determine if there is the potential for works or projects to act in combination and give rise to potential cumulative impacts on the designated sites.

A search of Meath County Council Planning Applications has been undertaken for applications submitted within the last 7 years in the vicinity project site. This search identified a number of developments which may have the potential to cause cumulative impacts with the proposed works. Some of the granted applications have already been completed and of those which are not completed most are of small scale in nature (i.e. residential extension works or property improvement works) or are considered to be of a reasonable distance from the proposed works and as such will not cause any effects on River Boyne and River Blackwater SAC and SPA, therefore they have not been considered further in terms of potential cumulative impacts.

Of the granted applications; 4 no. of these developments have been further assessed in terms of cumulative impacts with the proposed cycleway infrastructure project and are presented in Table 5-4 below.

A review of Transport infrastructure Ireland (TII) major road projects[17] does not identify any national road projects within the vicinity of the proposed project.

A review of Meath County Council road projects identifies the following approved project occurring in Navan; Local Distributor Road, 4 Abbeyland Navan (ABP case ref; HA17.307434). This road upgrade project has been subject to the Appropriate Assessment process which concludes; '*It can be determined beyond all reasonable scientific doubt that Proposed Development will not adversely affect the integrity of the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA. All identified pathways with potential for adverse impacts are robustly blocked through the use of best practice, avoidance and appropriate design as set out in this report. Following implementation of mitigation measures, the Proposed Development, individually and/or in combination with other plans and projects, will not adversely affect the integrity of any European site.'* The proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project will not result in likely significant effects on any European sites. Given that no likely effects are anticipated from either project, there is no potential for the 2 no. projects to give rise to cumulative impacts which could affect any European site.

It is considered that there are no council or ABP approved developments or projects that will act in combination with the proposed project to give rise to cumulative impacts on River Boyne and River Blackwater SAC / SPA or any other European site.

[17] https://www.tii.ie/roads-tolling/projects-and-improvements/Major-Active-Projects-March_FinalC.pdf

Table 5-4 - Planning applications near the proposed scheme.

Planning Ref	Applicant Name / Location	Description	In-combination assessment
NA151301	Sonbrook Property Moathill Ltd.	The proposed development will consist of: 99 no. residential units comprising 32 no. duplex/apartments set out in 2 no. 2 storey over lower ground floor blocks: and 67 no. 2 storey detached and semi-detached houses. The duplex/apartments will consist of: 16 no. 2-bed 1 storey apartment units at lower ground floor level (c. 75.5 sqm each); and 16 no. 3-bed 2 storey duplex units at ground floor and first floor level (c. 104.5 sqm each). The development will also include: a 2 storey creche (c. 130.5 sqm) with associated play area (c.156 sqm) and 5 no. carparking spaces; 2 no. bin storage buildings (c. 18.7 sqm each) and adjoining covered bicycle shelters (c. 22.6 sqm each) providing 20 no. bicycle spaces each; 2 no. car parking spaces on the curtilage of each house and 60 no. communal parking spaces for the apartment/duplex units; 2 no. landscaped public open spaces (c. 1,730 sqm and 2,930 sqm); internal access roads; a footpath and cycleway along the N51 National Road; a new vehicular access from the N51 National Road and associated revised junction layout; all ancillary landscaping and boundary treatments; drainage arrangements; and associated site development works, all on a site of c. 3.53 ha	This project has been subject to the AA process and the assessment concludes; '*The likely impacts that will arise from the proposed development at Moathill have been examined in the context of number of factors that could potentially affect the integrity of the Natura 2000 network. The screening exercise concluded that there is no potential from significant impacts on the Natura 2000 sites within a 15km range of the proposed site*.' The proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project will not result in likely significant effects on any European sites. Given than no likely effects are anticipated from either project, there is no potential for the 2 no. projects to give rise to cumulative impacts which could affect any European site.
NA171476	Foxtrot Investment 2011 Limited	The proposed development will consist of: Demolition of existing single and two storey warehouse buildings within the western portion of the site; Construction of a 6 no. storey mixed use building over basement (with rooftop plant at fifth floor level) to include setbacks and accessible terraces (eastern elevation) at first and fifth floor levels: Provision of a discount food store; provision of a 135 sq.m retail unit at first floor level (south) and circa 5,412 sq.m of office/medical floor space from first to fifth floors; provision of external plant enclosures (western elevation) at ground floor level; landscaped surface car park (90 no. car parking spaces) to serve the proposed discount food store	This project has been subject to the AA process which outlines; '*The Natura Impact Statement is stated as having considered the potential effects associated with the construction and operation of the proposed development. It states that with the application of the mitigation measures it can be clearly demonstrated that no elements of the project will result in any significant effects on the SAC or SPA either as a standalone development or in combination with other plans and projects*.'

Planning Ref	Applicant Name / Location	Description	In-combination assessment
		(including 1 no. set down space), 70 no. bicycle parking spaces, goods delivery/reception area; provision of a basement car park to serve the medical/office uses (including plant room/ancillary areas and 120 no. car parking spaces); reconfiguration of internal road and provision of ramp to basement of proposed development.	The proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project will not result in likely significant effects on any European sites. Given than no likely effects are anticipated from either project, there is no potential for the 2 no. projects to give rise to cumulative impacts which could affect any European site.
NA201713	Foxtrot Investment 2011 Limited	The development will consist of amendments to the permitted development (including footprint of building) to provide a total of 63 no. 'Build to Rent' apartments (27 no. 1-bed units, 35 no. 2-bed units and 1 no. 3-bed unit), and associated alterations compared to the permitted 50 no. 'Build to Rent' apartments in a building up to no. 7 no. storeys as follows: Replacement of permitted office/medical use at first floor level with 11 no. 'Build to Rent' residential apartments and ancillary amenity space (c. 148 sqm), with 1 no. additional 'Build to Rent' unit provided at fifth floor level. Amended layouts at upper floors and the reconfiguration of lower ground floors comprising reconfigured upper ground floor including, 1 no. 'Build to Rent' apartment unit, management store, with bicycle parking storage (105 no. spaces), provision of revised main entrance to Build to Rent accommodation, lobby and management office at the southern elevation, with 16 no. additional external bicycle parking spaces at south elevation.	This project has been subject to the AA process and the assessment concludes; '*The report has concluded that, with the application of the proposed mitigation measures, it can be clearly demonstrated that no elements of the project will result in any significant effects on the integrity or Qualifying Interests/Special Conservation Interests of any European site, in particular the River Boyne and River Blackwater SAC and SPA, either as a stand-alone development or in-combination with other plans or projects. It is considered that this NIS provides sufficient relevant information to allow the Competent Authority (Meath County Council) to reach a determination that the proposed development will not affect the integrity of any of the identified European sites under Article 6 of the Habitats Directive (92/43/EEC).*' The proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project will not result in likely significant effects on any European sites. Given than no likely effects are anticipated from either project, there is no potential for the 2 no. projects to give rise to cumulative impacts which could affect any European site.
NA180732	Gas Networks Ireland	Decommission and remove existing below ground District Regulating Installation (DRI) adjacent to Watergate St. and install a new above ground 0.87m x 0.50m x1.36m (LxWxH) DRI enclosure including a 3m high 'lamp post'	This project has been subject to the AA process and the assessment concludes; '*it can be objectively concluded that no significant effects arising from the proposed development are likely to occur in relation to the Natura*

Planning Ref	Applicant Name / Location	Description	In-combination assessment
		style relief vent stack with all ancillary services and associated site works	*2000 sites in question, therefore no Nature Impact Statement is required*.' The proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project will not result in likely significant effects on any European sites. Given than no likely effects are anticipated from either project, there is no potential for the 2 no. projects to give rise to cumulative impacts which could affect any European site.

5.7. Likelihood of Significant Effects on Natura 2000 Sites

Works are proposed directly adjacent to the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. Works are almost entirely within the hard standing areas of Navan town's urban roadways. There is potential indirect connectivity from the project works areas to the River Boyne and River Blackwater SAC and SPA via the local road drains. Given the location, duration and scale of the works and the nature and scale any construction related impacts that the proposed project could potentially generate, it is considered that the proposed project will not result in negative effects to the water quality of the River Boyne. As negative effects to the water quality of the River Boyne are not anticipated, there will be no likely significant effects to the qualifying interest habitats and species of the SAC/SPA in view of their conservation objectives.

5.8. Consideration of Findings

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that the proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project, either alone or in-combination with other plans or projects, will not result in likely significant effects on River Boyne and River Blackwater SAC, River Boyne and River Blackwater SPA or any other European site. Thus, it is recommended that it is not necessary for the project to proceed to Appropriate Assessment.

Should the scope, nature or extent of the project change, a new Screening for Appropriate Assessment report shall be required.

6. References

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WS Atkins Ireland Limited
Atkins House
150 Airside Business Park
Swords
Co. Dublin
K67 K5W4

Tel: +353 1 810 8000