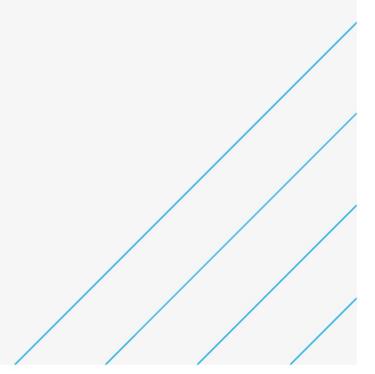


Navan Cycle Scheme - R147 Martha's Bridge to Circular Road

Environmental Impact Assessment Screening Meath County Council August 2022



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Client Sign off

| Client | Meath County Council | |
|----------------------------|--|--|
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1. Introduction

Meath County Council (MCC) have appointed Atkins to prepare an Environmental Impact Assessment (EIA) Screening Report, to accompany a Part 8 Planning Application for the proposed Navan Cycle Scheme R147 Martha's Bridge to Circular Road, in order to provide improved facilities for pedestrians and cyclists.

1.1. Proposed Project

Meath County Council (MCC) are undertaking the project in partnership with the National Transport Authority (NTA). The proposed scheme consists of improvements and upgrades to the R147 and the following junctions;

- R161 Circular Road / R147 Dublin Road Junction;
- L-3418 Academy Street / R147 Dublin Road Junction; and
- L-50555 Bóthar Sion / R147 Dublin Road Junction

The northern extent of the proposed Navan Cycle Scheme – R147 Martha's Bridge to Circular Road will connect with another proposed and permitted cycleway; the Athlumney to Trim Road Cycle and Pedestrian Scheme which is aligned (in part) along the R147 roadway running parallel to the River Boyne. The Athlumney to Trim Road Cycle and Pedestrian Scheme is a permitted development (Planning Ref: Part 8 P8/18014).

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 location of the proposed Navan Cycle Scheme from the R147 to Martha's Bridge is shown below in Figure 1-1.

1.2. Purpose of this Report

The purpose of this report is to determine whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR). The project has been screened to generate a summarised overview of the potential significant impacts on the receiving environment, and in the context of relevant statutory requirements.

A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2022). The project has been assessed with regards to the likely significant effects of the project on European sites within the zone of influence of the proposed project. The Screening for AA concluded that '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, however, 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.'



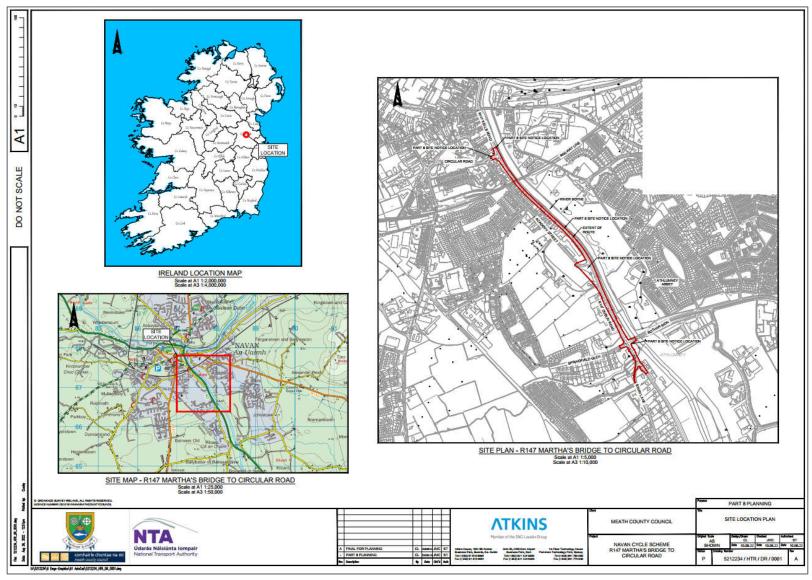


Figure 1-1 - Proposed Scheme Location

2. Methodology

This project has been screened in accordance with Section 3.2 of the '*Guidelines on the information to be contained in Environmental Impact Assessment Reports* (EPA, 2022), the Environmental Impact Directive (85/337/EEC) and all subsequent relevant amendments, Planning and Development regulations (2001-2022), including S.I. No. 296 of 2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, which came into operation on 1st September 2018. The project had been screened in accordance with the Roads Act, 1993-2021 and the European Union (Roads Act 1993) (Environmental Impact Assessment) (Amendment) Regulation 2019 S.I. No. 279 of 2019.

As set out under the relevant legislation (detailed further in Section 2.1 of this report), the following steps are involved when carrying out EIA screening for a particular project:

- **Step 1** is to determine if the proposed infrastructure works represent a project as understood by the Directive and if a mandatory EIAR is required. Such projects are defined in Article 4 of the EIA Directive and set out in Annexes I and II. Projects requiring a mandatory EIAR are included under Section 50 of the Roads Act (1993-2021), S.I. No. 279 of 2019 amendments and the prescribed projects listed in Section 8 of the Roads Regulations,1994 (S.I. No. 119 of 1994).
- **Step 2** is to determine if the project is likely to have significant effects on the receiving environment. Section 50 (1)(b) of the Roads Act (1993-2021) states that 'if An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment.'

Section 50 (1)(c) of the Roads Act (1993-2021) states that 'where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development.'

Section 50 (1)(e) of the Roads Act (1993-2021) states 'where a decision is being made pursuant to this subsection on whether a road development that is proposed would or would not be likely to have significant effects on the environment, An Bord Pleanála, or the road authority or the Authority concerned (as the case may be), shall take into account the relevant selection criteria specified in Annex III.' Annex III as has been transposed into Irish Legislation via Schedule 7 of the Planning and Development Regulations 2001-2022.

There are no exacting rules as to what constitutes "significant" in terms of environmental impacts. The responsibility is on Planning Authorities to carefully examine every aspect of a development in the context of characterisation of the project; location of the project and type and characteristics of potential impacts. It is generally not necessary to provide specialist studies or technical reports to complete this screening process, rather to investigate where further studies may be required, and where risks, if any, to the integrity of the receiving environment may lie.

For the purposes of screening sub-threshold development for EIA, all of the relevant information as presented within EIA Planning and Development Regulations 2018 (Schedule 7A) has been provided on behalf of the applicant, Meath County Council. The potential for the project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001 - 2022 (Schedule 7).

The findings of the EIA screening assessment prepared for the project has informed our professional opinion as to whether an EIAR is warranted for the proposed project, with due regard to all relevant statutory requirements and technical guidance. However ultimately it is the responsibility of the relevant planning authority to make a determination as to whether an EIAR is required for a particular project, based on screening conducted by the planning authority.

Figure 2-1 provides a summary of the main steps involved in the EIA screening process.



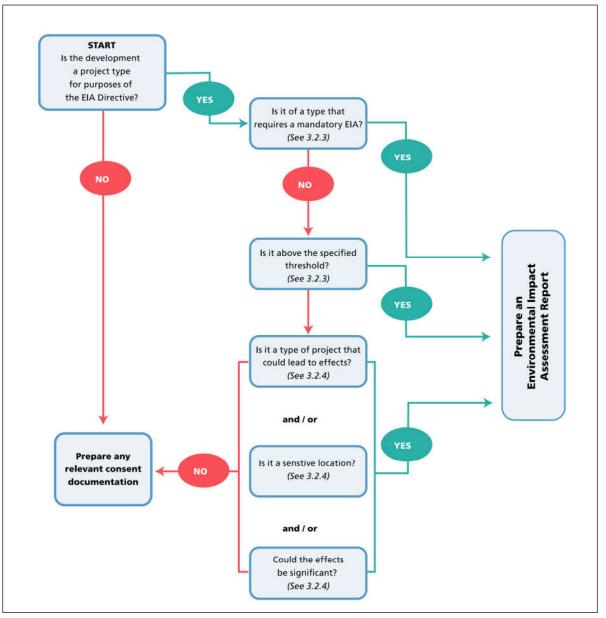


Figure 2-1 - EIA Screening Process (Source: 'Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022)).

2.1. Relevant Legislation

The Environmental Impact Directive (85/337/EEC) was brought into force in 1985. Subsequent amendments were made with the following pieces of legislation - 97/11/EC, 2003/35/EC, 2009/31/EC, 2011/92/EU and 2014/52/EU. The Directive was originally transposed into Irish Law by the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349/1989). This amended the Local Government (Planning and Development Act) 1963 and introduced the requirement for an Environmental Impact Assessment in certain specified circumstances. The most recent amendment to the Directive is focused on clarifying and simplifying the process of EIA. The screening criteria have been updated, and Member States have a mandate to simplify their assessment procedures. EIA reports are to be made more readily understandable to members of the general public. Section 50 of the Roads Acts 1993 and the 2021 amended Regulation outlines certain categories of roads projects which require an EIAR.

New EIA Regulations ((Planning and Development) Environmental Impact Assessment) Regulations 2018 (S.I No. 296 of 2018)) transposing the 2014 EIA Directive were recently adopted and came into operation on 1st September 2018. These regulations amend the Planning and Development Regulations 2001 (S.I. No.600 of 2001); they seek to transpose EIA Directive 2014/52/EU and to give further effect to the 2011 Directive, as follows;

• An EIAR is required as a matter of course on specified large-scale projects which have a high likelihood of impacting on the receiving environment. These projects are listed in full within the Planning & Development Regulations (2001-2022), Schedule 5, Part 1 – Development for the purposes of Part 10.



- Each EU Member State has discretionary consideration for the requirement of an EIA in relation to various processes and activities. These projects are listed in full within the Planning & Development Regulations (2001-2022), Schedule 5, Part 2 Development for the purposes of Part 10. If the proposed project is listed under Schedule 5, Part 2, but does not exceed the relevant stated thresholds, it is considered to be sub-threshold. Part 10, article 92 of the Planning & Development Regulations, 2001 as amended states "sub-threshold development' means development of a type set out in Part 2 of Schedule 5, which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development". Any sub-threshold developments should be evaluated to determine if the project is likely to have a significant impact on the environment.
- Criteria to evaluate whether significant impacts on the receiving environment will arise from a proposed development are listed under Schedule 7 of the relevant Planning & Development Regulations (2001-2022). A list of the relevant information to be provided by the applicant or developer for the purposes of sub-threshold EIA screening is presented in Schedule 7A of the Regulations, and summarised below;
- 1. A description of the proposed development, including in particular:
 - a. a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works; and,
 - b. a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
- 2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
- 3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from:
 - a. the expected residues and emissions and the production of waste, where relevant: and,
 - b. the use of natural resources, in particular soil, land, water and biodiversity.
- 4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

3. Environmental Impact Assessment Screening

3.1. Step 1 - Mandatory Screening for EIA

The scheme has been screened against the criteria outlined in Section 50(1)(a) of the Roads Act 1993-2021¹ and Article 8 of S.I. No. 119/1994- Roads Regulations, 1994². This project does not fall within any category of development requiring a mandatory EIA; hence the preparation of an EIAR is not required under Section 50 (1)(a).

3.1.1. Sub-threshold Development Likely to Have Significant Effects on the Environment

The scheme has been screened against the criteria outlined in Section 50(1)(b) and 50(1)(c) of the Roads Act 1993-2021, as follows;

Section 50(1)(b) -'If An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment.'

Section 50(1)(c) - Where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development.'

Therefore, it is considered that the scheme should undergo an EIA screening to determine if an EIAR would be required in accordance with Section 50(1)(b) and 50(1)(c) of the Roads Act 1993-2021.

3.2. Step 2- Determining if the project is likely to have significant effect on the receiving environment.³

All relevant information as required under Schedule 7A has been provided on behalf of Meath County Council and is presented within this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001-2022 (Schedule 7), as presented within this screening report.

3.2.1. Description of the Proposed Development (Schedule 7A (1))

A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))

The proposed scheme consists of a ca. 1.4km cycleway on the existing road network adjacent to the River Boyne.

The proposed scheme has been broken down into general sections to provide for various link design types. These sections are as follows:

- 1. Link A: the northern portion of the scheme from R161 Circular Road / R147 Dublin Road Junction to Academy Street. This link type will comprise of:
 - i. 2No. 1.8m wide (minimum) footpaths.
 - ii. 1No. 2.5m wide (minimum) two-way cycle track along the river side of the scheme; and
 - iii. 2No. 3.25m wide traffic lanes (narrowed to 3m at signalised junctions or turning lanes);
- 2. Link B: the central portion of the scheme from Academy Street to L-50555 Bóthar Sion / R147 Dublin Road Junction. This link type will comprise of:
 - i. 2No. 1.8m wide (minimum) footpaths.
 - ii. 1No. 2.5m wide (minimum) two-way cycle track along the land side⁴ of the route; and
 - iii. 2No. 3.25m wide traffic lanes (narrowed to 3m at signalised junctions / turning lanes); and,

⁴ 'Land side' is used for simplicity when referring to the side of the R147 that is opposite the river.

¹ http://www.irishstatutebook.ie/eli/2021/si/12/made/en/print

² http://www.irishstatutebook.ie/eli/1994/si/119/made/en/print

³ Pursuant to Schedule 7(A) of the Planning and Development Regulations as amended 2001-2021



- 3. Link C: southern portion of the scheme from L-50555 Bóthar Sion / R147 Dublin Road Junction and to the start / termination point south of Swan Lane. This link type will comprise of:
 - i. 2No. 1.8m wide (minimum) footpaths.
 - ii. 1No. 2.5m wide (minimum) two-way cycle track along the land side of the route; and
 - iii. 2No. 3.25m wide traffic lanes (narrowed to 3m at signalised junctions / turning lanes).

Design drawings are presented in Appendix A of the Part 8 Report (Atkins, 2022).

3.2.2. Construction Methodology

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

3.2.2.1. 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 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.

3.2.2.2. 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.

3.2.2.3. 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.

3.2.2.4. 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 for 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 details of this will be further developed during the Detailed Design stage of the project

3.2.2.5. 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.

3.2.2.6. 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.

3.2.2.7. Junctions

All junctions along the scheme will be 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.

3.2.2.8. Bridge Crossings

The cycleway crosses 1 no. watercourse; Robinrath Stream (aka Swan River). The Robinrath Stream is culverted under the R147 and it is proposed to align the cycleway alongside and parallel to the roadway to span over the stream. It is proposed to utilise a precast deck unit of ca. 4m in length (steel or reinforced concrete) to span the open channel watercourse adjacent to the culvert. The deck unit will be installed on 2 no. reinforced concrete abutment walls, or similar to enable the ca. 4m span across the stream and avoid in-stream works. The concrete abutment walls will be poured in situ and will be located at a ca. 1m set back distance from the stream bank. As per standard construction techniques, the abutment walls will be poured inside oversized shuttering / form work to ensure concrete is contained and restricted only to the required areas which will ensure there is no risk of concrete loss near or to the watercourse.

The design of the structure spanning the stream will be developed during the Detailed Design phase of the project.

3.2.2.9. 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 not be permitted within the River Boyne and River Blackwater SAC / SPA nor within 25m of the River Boyne. It is planned that existing Local Authority (Meath County Council) controlled material storage yards in the locality, currently used for the storage of inert materials, will be utilised during the construction phase to store similarly inert materials for incorporation in the proposed scheme. Materials will be brought to site on a periodic basis as required directly from suppliers. Parking for operatives will be at the main compound only. Operatives will be transported from the compound to the works area. No parking will be allowed within the temporary works area or on-street.

3.2.2.10. Scheme connectivity

The northern extent of the proposed scheme will connect to another cycleway; Athlumney to Trim Road Cycle and Pedestrian Scheme where a section of this granted scheme is aligned along the R147 roadway.

A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b)).

The proposed scheme will be constructed within the town of Navan along the existing road corridor.

Under the Draft Directions of the Material Amendments to the Meath County Development plan 2021-2027 (MCC, 2021) the following zoning objectives have been identified adjacent to the footprint of the proposed project:



- A1 Existing Residential defined by MCC (2021/2027) as 'To protect and enhance the amenity and character of existing residential communities.'
- A2 New Residential defined by MCC (2021-2027) as 'To provide for new residential communities with ancillary community facilities, neighbourhood facilities and employment uses as considered appropriate for the status of the centre in the Settlement Hierarchy.'
- B1 Commercial Town or Village Centre, defined by MCC (2021-2027) as 'To protect, provide for and/or improve town and village centre facilities and uses.'
- C1 Mixed Use defined by MCC (2021-2027) as 'To provide for and facilitate mixed residential and employment generating uses'
- F1 Open Space defined by MCC (2021-2027) as 'To provide for and improve open spaces for active and passive recreational amenities; and,
- H1 High Amenity defined by MCC (2021-2027) as '*To protect and improve areas of high amenity*'

It is considered that the proposed scheme is fully compatible with the zoning requirements of the development strategy for Navan, under the Meath County Development Plan 2021-2027. The Development Plan clearly sets out the development of cycling and pedestrian linkages with the following aims relevant to the Navan Cycle Scheme:

- The Plan will seek to support and facilitate an increase in modal share for cycling and increases in the use of the bus network in the County.
- Inclusion of measures to improve the efficiency and sustainability of urban transport including improved and expanded public transport capacity; walking and cycling infrastructure; improved traffic management and bus priority; and better use of Intelligent Transport Systems (ITS), where appropriate.
- To promote the use of mobility management and travel plans to bring about behaviour change and more sustainable transport use.

Hydrology and Designated Sites

While the majority of the proposed pedestrian and cycle scheme will be located on made ground it is proposed that small portions of grassland / road verges will be utilised on the landside areas of the R147.

The proposed scheme is within the Boyne Water Framework Directive (WFD) catchment area and the Boyne sub-catchment area. There are 2 no. EPA watercourses within vicinity of the cycle route; the Robinrath Stream (EPA Code: IE_EA_07B041810), also known as Swan River, is crossed by the cycle route adjacent to the R147 where the stream is culverted under the roadway and the River Boyne (EPA Code: IE_EA_07B041810) is aligned along the eastern boundary of the proposed cycle route. The Robinrath Stream has 'Good' WFD status for the 2013-2018 monitoring period and is 'Not at Risk' of failing to achieve the relevant WFD objectives by 2027. The Robinrath Stream flows in an easterly direction through the southern portion of the site before out falling to the River Boyne. This stream is culverted beneath the R147 road.

EPA datasets identify the River Boyne as having 'Good' Water Framework Directive (WFD) status for 2013-2018 monitoring period and it is 'Not at Risk' of failing to relevant WFD objectives by 2027. Biological analysis is undertaken along the River Boyne by the EPA within Navan town at the Railway Bridge which is adjacent to the northern portion of the proposed scheme. EPA records identify a Q-value of 3-4 at Kilcarn Bridge (located ca.1.2km upstream (south) of the proposed project) in 2020 indicating a moderate biological status along the River Boyne.

There are 4 no. European sites within the potential zone of influence of the proposed scheme as follows:

- River Boyne and River Blackwater SAC (site code: 002299);
- River Boyne and River Blackwater SPA (site code: 004232);
- Boyne Coast and Estuary SAC (001957); and,
- Boyne Estuary SPA (004080).

The proposed project lies directly adjacent to the boundary of River Boyne and River Blackwater SAC (002299) and River Boyne and River Blackwater SPA (004232). A small section of the proposed cycleway is aligned on top of Bóthar Sion Bridge and this bridge crosses over River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. At the northern end of the scheme the proposed cycleway will connect into the proposed and permitted Athlumney to Trim Road Cycle and Pedestrian Scheme (granted development) and this scheme at the tie in point is ca. 2m within the boundary of the River Boyne and River Blackwater SAC.



At the southern end of the proposed scheme, the Robinrath Stream is crossed by a ca. 4m single span deck unit. The open channel of the Robinrath stream is crossed by the deck unit immediately adjacent to where the stream is culverted under the R147 roadway. There is potential indirect connectivity from the proposed project to the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA via the Robinrath Stream.

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 hydrological connectivity to these 2 no. European sites. However, based on the distance between the project site and these sites, the dilution and dispersal that would occur from the River Boyne and the scale and nature of the proposed works 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.

The River Boyne and River Blackwater SAC is designated as a site of international importance for the conservation of natural habitats; fens and alluvial forests and for the conservation of fauna found within the river; otter (*Lutra lutra*), salmon (*Salmo salar*) and river lamprey (*Lampetra fluviatilis*).

The River Boyne and River Blackwater SPA is a site of international conservation status for its importance in hosting Kingfisher (*Alcedo atthis*).

There are no Natural Heritage Areas (NHA) or proposed NHA's within the proposed project site. There is 1no. NHA and 7no. pNHA's within 15km of the site boundary. Details of such sites and their potential indirect connectivity to the proposed scheme are detailed below in Table 3-1.

| Site Name & Code | Approximate distance from site | Connectivity to project site |
|---|--------------------------------|--|
| Jamestown Bog NHA (001324) | Ca. 8km | No hydrological connectivity |
| Boyne Wood pNHA (001592) | Ca. 4.4km | Yes, potential hydrological pathway via the Boyne River. This pNHA is Ca 5.4km downstream of the site. |
| Balrath Woods pNHA (001579) | Ca. 9.9km | No hydrological connectivity. |
| Trim pNHA (001357) | Ca. 10.7km | No hydrological connectivity. |
| Slane Riverbank pNHA (001591) | Ca. 10.8km | Yes, potential hydrological pathway via the Boyne River. The pNHA is Ca 13.1km downstream of the site. |
| Crewbane Marsh pNHA (000553) | Ca. 11.7km | Yes, potential hydrological pathway via the Boyne River. The pNHA is Ca 15.1km downstream of the site. |
| Thomastown Bog (001593) | Ca. 12.7km | No hydrological connectivity. |
| Rossnaree Riverbank pNHA (001589) | Ca. 13.55km | Yes, potential hydrological pathway via the Boyne River. The pNHA is Ca 18.4km downstream of the site. |

Table 3-1 – NHA's and pNHA's within 15km of the project site

There are no Geological Heritage Sites within the site boundary, however the Boyne Geological heritage site is located ca. 950m downstream (ca 0.6km north-east by land) (GSI, 2022). According to GSI (2022) the site is described as 'A glacial U-shaped valley with characteristic depositional and erosional features associated with ice flow and glacial meltwater'.

Biodiversity

There are no. wetland habitats located within 2km of the proposed project. The closest reported wetland site, Morrell Golf Course Ponds (artificial ponds), is located ca. 2km east of the site. There is no hydrological connection to this wetland site.

There are no nature reserves or National Parks located within 15km of the project site.



A National Survey of Native Woodlands (NSNW) was conducted between 2003 and 2008 with the aim of identifying areas of native woodlands within Ireland. There are no native woodlands within the proposed project site. There are also no woodlands identified within the inventory of Ancient and Long Established Woodlands of Ireland within the project site.

A search of NBDC records was carried out for the Ordinance Survey Ireland (OSI) 2km grid square; N86T which encompasses and surrounds the site. A number of bird species which have been designated for protection under the Wildlife Acts and European Birds Directive have been identified within the 2km grid square i.e. within the vicinity of the proposed project. These bird species are as follows.

- Red Listed birds recorded: Herring Gull (*Larus argentatus*)
- Amber Listed birds recorded: Barn Swallow (*Hirundo rustica*), Common Starling (*Sturnus vulgaris*), Common Swift (*Apus Apus*), Common Kingfisher (*Alcedo atthis*), Great Cormorant (*Phalacrocorax carbo*), House Martin (*Delichon urbicum*), House Sparrow (*Passer domesticus*), Little Grebe (*Tachybaptus ruficollis*).

A number of protected mammal species were also recorded within the 2km grid square within the vicinity of the proposed project including Daubenton's Bat (*Myotis daubentonii*) and the West European Hedgehog (*Erinaceus europaeus*).

NBDC records identify otter and kingfisher as having been recorded along the entirety of the Boyne River Valley including adjacent to the project site.

According to NBDC species records floral invasive species Japanese knotweed (*Reynoutria japonica*) has been recorded in the town of Navan within the vicinity of Dublin Road; NBDC records do not identify the exact location. Indian Balsam, also known as Himalayan Balsam (*Impatiens glandulifera*) has been recorded in the area of St Martha's Bridge (also known as Bóthar Sion bridge) and also along the River Boyne in close proximity to Timmons Hill in Navan.

Hydrogeology

The GSI (2022) groundwater wells and springs database identify 2 no. registered wells which are potentially within the project boundary or its immediate vicinity and are reportedly used for domestic use; 1 no. of which is a well located at the townland of Athlumney (east of the project site) and the other is a borehole located in the Dillonsland, Abbeyland South and Townparks areas of Navan Town (west/north-west of the site). These wells are reported to a 1km locational accuracy and therefore their exact locations are not known at this stage.

The GSI (1999) provides a framework for the protection of groundwater source zones (i.e. zone of contribution to water supply bore holes). There are no public supply designated source protection areas within a 5km radius of the proposed project.

Groundwater vulnerability within the site is predominantly classified as 'high' while there is a small portion of 'extreme' groundwater vulnerability within the southern section of the site area. There is also an area of 'Rock at or near Surface or Karst' adjacent to the eastern side of the scheme.

There are no gravel aquifers located within the site or its immediate vicinity. The closest reported gravel aquifer is located 5.3km south of the project between Bective and Assey Co. Meath.

The site is located within the Trim Ground Water Body (GWB) and groundwater quality of this GWB is reported to be of 'Good' Status for the 2013 to 2018 period and is 'At Risk' of failing to achieve relevant Water Framework Directive (WFD) objectives by 2027. A key component of the groundwater classification is the assessment of the impact of pollution on the groundwater body. The groundwater status classification process accounts for the ecological needs of the relevant rivers, lakes and terrestrial ecosystems that depend on contributions from groundwater.

Geology

The underlying geology consists of 'dark limestone and shale' from the Lucan Formation throughout the project site according to GSI maps (2022).

There are no identified karst features recorded within the vicinity of the project site (GSI, 2022). The closest karst feature is located ca 6.7m north where there are 'superficial solution features' located at Gibstown Co. Meath.

There are no Geological Heritage Sites within the site, however the Boyne Geological heritage site is located ca. 950m downstream of the site boundary (ca 0.6km north-east by land) (GS, 2022).

There are no EPA licenced facilities within the site or its immediate environs (EPA, 2022). The closest licenced facility, Navan Carpets Limited (P0490), is located ca. 1.4km from the site.



Flooding

A Stage 1 Flood Risk Assessment (FRA) was prepared by Atkins (2022) which '*identified that sections of the proposed site are in Flood Zone A and at risk from fluvial flooding from the Boyne River*.' The FRA also noted the following:

- The proposed cycle route will be along existing R147 Rd infrastructure and will be implemented by introducing new road markings.
- The proposed site is within an existing built-up area and there will be no alteration to existing topography/ground levels within the site.
- No new hard standing area will be included as part of the scheme and therefore there is no increased surface water runoff.
- No new construction of any building structures will be carried out and therefore no impact from displaced flood water on adjacent building / infrastructure.

In view of records of Historic flooding within the proposed site, it is recommended that in advance of the construction stage of the proposed cycle route, the nominated contractor shall have in place a flood emergency plan so that any flooding from the River Boyne during construction stage can be mitigate against.

Archaeology and Cultural Heritage

There is 1 no. viaduct which is classed as a National Inventory of Architectural Heritage (NIAH) feature located within the northern region of the site. NIAH (2022) describe the viaduct as a 'seven arch railway viaduct over river, c. 1849, of rock faced rusticated limestone. Segment arches. Rubble sandstone boundary wall marks location of former south-western river bank.'

The northern part of the site also briefly intersects a zone of notification for several Sites and Monuments Record (SMR) sites/features.

The northern section of the proposed scheme covers the Navan Historic Core Architectural Conservation Area (ACA)⁵. As stated within the Meath County Development Plan 2021-2027 (MCC, 2021) the objectives for the Navan Historic Core Architectural Conservation Area are as follows:

- 1. 'To preserve the character of the Navan Historic Core Architectural Conservation Area, its buildings, streetscape, and public realm.
- 2. To preserve the historic street pattern within the core of the town, including the laneways.
- 3. To require the retention of all structures which contribute in a positive manner to the character of the ACA.
- 4. To support and encourage the re-use of suitable redundant or obsolete buildings within the ACA.
- 5. To protect the character of the existing streetscape by giving consideration to the suitability of style, construction materials, colour and decoration to be used in any proposals for development taking place within this area and to require that all new developments within or adjacent to the ACA shall observe the existing scale of the town.
- 6. To retain historic architectural and townscape elements such as shop fronts, sash windows, gutters and down pipes, decorative plasterwork, etc. that contribute to the character and appearance of the ACA.'

As the northern portion of the site is within the Zone of Notification for a number of SMRs, a National Monuments Service notification form will be completed and submitted to the National Monuments Service, a minimum of 2 months prior to construction works being undertaken within this area.

The environmental sensitivity of geographical areas likely to be affected by the proposed development are evaluated further within Section 3.3.2 of this report (*Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development*) as required under Schedule 7 of the relevant regulations.

3.2.3. Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).

The proposed project is hydrologically connected to and immediately adjacent to River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. The proposed project does not lie within any Nature Reserves, National Parks or Natural Heritage Areas (detailed in Section 3.3.2 of this report). The AA Screening prepared for the proposed project (Atkins, 2022) states that '*It is concluded by the authors of this report that the proposed Navan Cycle Scheme - R147 Martha's Bridge to Circular Road project, either alone or in-combination*

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⁵ https://consult.meath.ie/en/consultation/meath-draft-county-development-plan/chapter/navan-historic-core-architectural-conservation-area



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.'

Philip Blackstock undertook an Arboricultural Impact Statement for the project area in July 2022, during which ca.12no. trees were identified as needing to be removed to facilitate the development of the cycle path. The Impact Statement also recommends that crown clearance works, ivy removal, clearance from overhead cables etc. are required at ca.12no. tree locations. It is proposed that any trees to be removed will be replaced with new trees in order to achieve nett-balance or nett-gain.

It will be the responsibility of the Contractor to determine a suitable location for the site compound within the proposed development area away from any identified environmental sensitive receptors (watercourses 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.

The other relevant aspects of the environment (including human health), which could potentially be significantly affected by the proposed project are receiving groundwater environment, surface water environment, air quality environment, the receiving noise and vibration environment, and the receiving traffic environment, during the construction phase.

The works will mainly involve excavations to a general depth of 0.5m below ground level (bgl) along the existing road networks. Slightly deeper localised excavations may be required at the Robinrath Stream crossing to facilitate the widening of the existing bridge structure which is required to accommodate the proposed scheme. Groundwater vulnerability within the site is predominantly classified by GSI (2022) as 'high' while there is a small portion of 'extreme' groundwater vulnerability within the southern section of the scheme. There is also an area of 'Rock at or near Surface or Karst' adjacent to the eastern side of the scheme. These ratings indicate that groundwater could potentially be shallow in the area and vulnerable to contamination during construction.

The Boyne River runs parallel to the proposed scheme. The scheme is proposed on both sides of the R147. All works will be along the roadway within the existing roadside verges. The proposed scheme will tie into the existing drainage system on the existing road network. Where this cannot occur, new gullies will be installed and tied into the existing drainage system. Accordingly no significant adverse impacts are anticipated with respect to surface quality, levels or flow.

The proposed scheme lies within an urban area and there are sensitive receptors adjacent to the scheme i.e. residential and commercial properties. Dust may be generated during the construction phase. Construction will require the use of machinery such as dump trucks, mechanic excavators etc. The presence of such machines may result in a temporary increase in noise and dust. The air quality at the proposed project is 'Good' (EPA, 2022). However, management of dust will be in line with relevant best practice measures such as those set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011). Due to the nature and scale of the project it is anticipated that the construction works will not have a significant impact on air quality. It is anticipated that the operational phase will likely have a positive impact on air quality.

Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (NRA, 2014). It is anticipated that the works will be scheduled during day-time hours. Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed project will not have a significant impact on noise.

Due to the scale and nature of the project it is anticipated that there may be impacts on traffic volumes during the construction phase of the project. The roadworks will be carried out on a phased basis. A traffic light system or Stop/Go system will be maintained throughout the works area to ensure that traffic is controlled and continues to flow during the construction phase. It is considered that there will be no significant negative impact on traffic during the construction and operational phase of the project.

3.2.4. A Description of Any Likely Significant Effects (To the Extent of The Information Available on Such Effects) of The Proposed Development on The Environment (Schedule 7A(3)).

The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).

The proposed scheme may give rise to air, noise, water emissions and waste. However, the proposed scheme will be designed in order to minimise any potential impacts as a result of these emissions during the operational



phase. Standard mitigation measures will be implemented by the Contractor to address potential air and noise emissions during the construction phase. The Contractor will ensure that onsite storm water management during the construction phase is carried out in accordance with relevant best practice measures as set out in Construction Industry Research and Information Association (CIRIA) guidance '*C532* - *Control of Water Pollution from Construction Sites*'.

Given the scale and nature of the proposed development any such waste is likely to be generated in very minor volumes. During the construction phase the following waste streams will be generated: construction and demolition (C&D) waste including footways and asphalt / road surface, mixed municipal waste (MMW), recyclables such as plastic wrapping, wooden pallets and paper. All waste will be removed on a regular basis to a designated area in the proposed site compound where it will be segregated and temporarily stored before being recycled or disposed of by the Contractor to an appropriately licenced waste recovery or waste disposal facility. All waste generated will be disposed of by the Contactor in accordance with all relevant waste management legislation. The Contractor will be responsible for segregating each waste type as per the relevant List of Waste (LoW) (also referred to European Waste Catalogue (EWC) code). All waste materials must be removed offsite by a suitably permitted waste haulage contractor who holds a current valid waste collection permit issued by the National Waste Collection Permit Office (NWCPO).

The Solid Waste Management policy of Variation No. 3 of the Navan Development Plan 2009-2015 (MCC) states the following:

- 'INF POL 65 To promote education and awareness on all issues associated with waste management, both at industry and community level. This will include the promotion of waste reduction by encouraging the minimization, re-use, recycling and recovery of waste within the country.
- INF POL 66 To implement the policies and objectives of the Waste Management Plan for the North East Region.
- INF POL 35 To promote and encourage the recycling of construction and demolition waste in accordance with approved construction and demolition waste management plans'.

This policy will be implemented during the construction and operation of the proposed development.

Additionally, an objective of the Navan Development Plan 2009-2015 (Variation No. 3) is as follows:

INF OBJ 59: 'To require the submission of a waste management plan for developments which meet the threshold for such plans as set out in the 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' (DoEHLG 2006) or its replacement.'

The Contractor will be obliged to prepare a project specific Resource Waste Management Plan (WMP) prior to commencement of the proposed development in accordance with the relevant guidelines *Best Practice Guidelines for the preparation of resource & waste management plans for construction & demolition projects*' prepared by the EPA (2021).

The operational phase of the project should be accompanied by an increase in cyclists and an associated reduction in vehicular traffic. The proposed scheme is not likely to have a significant environmental effect with regard to expected residues and emissions and the production of waste.

The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).

During the construction of the proposed project a limited amount of natural resources in the area will be utilised for the proposed project. There will be a limited amount of existing greenfield space used for the proposed project as the majority of the proposed scheme will be within the existing road network / footpaths. Philip Blackstock prepared an Arboricultural Impact Statement for the project area in July 2022, during which a ca.12no. trees were identified as needing to be removed to facilitate the development of the cycle path. The Impact Statement also recommends that crown clearance works, ivy removal, clearance from overhead cables etc. are required at ca.12no. tree locations. It is proposed that any trees to be removed will be replaced with new trees in order to achieve nett-balance or nett-gain. Trees and vegetation shall be protected as required in accordance with BS:5837:2012 during construction and demolition works.

The proposed project involves an anticipated excavation depth of 0.5m bgl to facilitate the foundation for the proposed footpaths / pavements and the ducting for the signalling associated with the scheme, with localised deeper excavations potentially required at the Robinrath Stream crossing point. All soil requiring disposal offsite will require waste classification in accordance with EPA requirements as set out in the documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2015), and 'Determining if waste is hazardous or non-hazardous' (EPA, 2018), and all relevant waste management legislation. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils which require offsite removal and disposal.



Therefore, based on the environmental setting, and taking account of the nature, scale and location of the proposed project other than standard construction materials, the proposed project (during both construction and operational phases) will not have a significant impact on natural resources.

3.2.5. The Compilation of The Information at Paragraphs 1 To 3 Shall Take into Account, where Relevant, the Criteria set out in Schedule 7 (Schedule 7A(4)).

All relevant criteria set out in Schedule 7 of the Regulations is presented in Section 3.2 (*'Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA'*) of this screening report.

During the preparation of Sections 3.3.1 to 3.3.3 (i.e. Schedule 7A (1) to (3)) all pertinent Schedule 7 information has been taken account of as required, with specific details presented in the following section of this report (Section 3.3 and 3.4).

3.3 Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA

3.3.1 Characteristics of proposed development (Schedule 7(1))

The size and design of the whole of the proposed development (Schedule 7(1)(a))

Refer to Section 3.2.1 under 'A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))'.

Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b))

Committed Development

A search of Meath County Planning records has been undertaken for the applications submitted within the past 5 years in the vicinity of the proposed development (last reviewed 02/06/2022). Some of the granted applications have already been completed and of those which are not completed, most are generally small scale in nature (i.e. residential extension works, or property improvement works). Completed or granted applications of such small scale (such as residential improvements) have not been considered further in terms of potential for cumulative impacts.

There are 7no. projects / committed developments, which have not yet been built and have been further evaluated with respect to cumulative impacts with the proposed Navan Cycle Scheme, as follows;

• MCC (Part 8) Athlumney to Trim Road Cycle and Pedestrian Scheme, (P8/18014). Granted 2019.

Meath County Council proposes to carry out development works which consist of 2.9km of segregated cycle and pedestrian facilities, starting at Beechmount Junction on the Trim Road (R161), moving north eastwards to the roundabout at the Solstice Art Centre, then going east onto Circular Road to meet the R147. From this point, a 2 way cycle track and pedestrian footpath will travel north eastwards on the River Boyne side of the R147, where it will join up with the cycle facilities on the new bridge (currently under construction) to cross the River Boyne and continues out the Kentstown Road to the junction with Convent Lane (approved under a previous Part 8 process). At Convent Lane, the footpaths will be upgraded and a shared on-road space for cyclists and vehicular traffic will be provided which continues as far as the entrance to St Michaels Loreto Secondary School. Thereafter, segregated facilities will be provided for cyclists and pedestrians as far as the railway bridge, at which point, north bound cyclist's revert to a shared road space facility with one way (north bound) vehicular traffic maintained. This scheme terminates at the top of Convent Lane at the junction with Elm Park. An EIA Screening was submitted as part of the planning application for this project which concluded that 'Under Schedule 5 of the Planning and Development Regulations, 2001 it is considered that the proposed development does not have potential to have significant effects on the environment for those reasons listed in the previous sections and, as such, it is recommended that an EIAR is not required.' Additionally, based on the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

• ES Corella Creek Ltd. Construction of housing development comprising 132no. residential units (SH311199). Granted November 2021.

The development will comprise off 60 no. houses; 8 no. two storey, three-bedroom terraced houses; 30 no. 2-storey three bedroom semi-detached houses; 11 no. 2-storey three bedroom houses; 11 no. 3-storey four bedroom semi-detached houses; 36 no. apartments in 1 no. 4-storey building; 36 no. own door duplex units; a childcare facility; 2 no. new vehicular access including 1 no. access onto the Trim Road, and 1 no access to the north of the site onto the North South Link Street; Upgrades to pedestrian and cycling infrastructure on the Trim Road; a total of 184 no. car parking spaces and 212 no. bicycle parking spaces; 1 no. ESB substation;



1 no. temporary wastewater pumping station and emergency overflow storage tank; all site and infrastructural works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the proposed cycleway project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

• Coindale Limited. Construction of housing development comprising 544no. residential units (SH306021). Granted July 2020.

The construction of a residential development of 544 no. dwellings, 2 no. creches and open space areas. Works include: A)-260 no. houses; B) 198 no. apartments; C) 15 no. 2 bed duplex and 15 no. 3 bed duplex apartments; D) 8 no. 5 dwelling 3 storey corner blocks (40 units in total); E) 2 no. 8 dwelling 3 storey corner blocks (16 units in total); F) 2 no. creches; G)Open spaces within the development including playground areas and communal open spaces; H) Access from 3 no. junctions onto Academy Street, and new pedestrian access onto Dublin Road (R147), also 875 no. car parking spaces and 581 no. cycle spaces; I) Surface water & underground attenuation systems; J) Temporary marketing signage for a period of 3 years; K) All associated site development &landscape works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

• Hunt Capital Ltd. Strategic Housing Development comprising 4no. buildings (SH304840) Granted October 2019.

Construction of four buildings ranging in height from four to five storeys over basement on a site measuring 1.23 hectares. It will contain 104 no. apartments (20 no. 1-bed, 76 no 2-bed, 8 no 3-bed) and 1536 sqm of commercial space including a creche (256 sqm) sports facility (295sqm), offices, own-door commercial units and ancillary spaces. Provision is made for the installation of photovoltaic /solar panels on the roof of each building. Communial open space is provided at ground level and at 2no. raised landscaped areas at first floor level. The application also includes 148 no. car parking spaces and 249 no. bicycle spaces at basement level, 70 no. car parking spaces and 19 no. bicycle spaces at surface level, 2 no vehicular entrances off Metges Road, an ESB Substation, associated ancillary site development works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

• Meath Enterprise Centre Co. Ltd. Construction of an Advanced Technology Building (NA161219) Granted December 2016.

Construction of an Advanced Technology Building of 2.483 sq.m., part two-storey and part double height single-storey with associated car parking, entrance and exit roads, delivery yard, landscaping, site services and sundry related works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

• Kingscroft Development Limited. Extension of duration for 50no. residential units (21283) Granted April 2021.

Extension of duration for 50 no. residential 2-3 storey residential units, pedestrian access, landscaping, boundary works, car parking, associated site development works (Applied for), 46 no. residential 2-3 storey residential units, pedestrian access, landscaping, boundary works, car parking, associated site development works (permission granted). There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

• Coiste na Mi Cumann Luthchleas Gael. Redevelopment of the spectator stands associated with the existing County Grounds at Pairc Tailteann (NA171423). Granted January 2018.

Development and the phased redevelopment of the spectator stands associated with the existing County Grounds at Pairc Tailteann, Brews Hill/Commons Road, (Townspark Td.), Navan, Co. Meath, a site of 4.58 hectares. The proposed development comprises the demolition and works associated with the replacement of existing North Terrace with footprint of 4,100 sqm, East and West grass banks with footprint of 5,295 sqm and South Stand with footprint of 3,860 sqm., to provide 4 no. new seating/standing areas with a total maximum capacity of 24,500 persons, over the course of construction and a total 22,000 person capacity on completion, whilst retaining the playing pitch in its existing orientation and location. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.



Given the nature, scale and location of these granted developments and the proposed project no significant impacts are anticipated. It is considered the proposed Ratoath Pedestrian and Cycle Scheme will not act in combination to give rise to any cumulative impacts.

3.3.1.1 The nature of any associated demolition works (Schedule 7(1)(c))

Refer to Section 3.2.1 under 'A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))'. No demolition works are proposed as part of the proposed project.

3.3.1.2 The use of natural resources, in particular land, soil, water and biodiversity (Schedule 7(1)(d))

Refer to Section 3.2.3 under '*The Use of Any Natural Resources in particular soil, land, water and biodiversity* (Schedule 7A (3)(b)).

3.3.1.3 The production of waste (Schedule 7(1)(e))

Refer to Section 3.2.3 under '*The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).*' The proposed project is not likely to have a significant environmental effect with regard to the production of waste. All waste will be removed to an appropriately licenced/ permitted waste disposal/ recovery facility.

3.3.1.4 Pollution and nuisances (Schedule 7(1)(f))

Refer to Section 3.2.2 under 'Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2))'. There will be no significant impact on the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA due to location, duration and scale of the works (refer to section 3.2.1). No in-stream works will occur along the Boyne River. The appointed contractor will be required to put in place site specific pollution control measures to protect local ecology and water quality. A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2022). The project has been assessed with regards to the likely significant effects of the project on European sites within the zone of influence of the proposed project. The Screening for AA concluded that 'proposed Navan Cycle Scheme - R147 Martha's Bridge to Circular Road project, either alone or in-combination with other plans or projects, will not result in likely significant effects on 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.'

Biosecurity protocols will be implemented during the construction phase of the proposed project to prevent the introduction of invasive species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011, as amended, to site.

The construction phase of the project may generate waste such as metals, asphalt, construction and demolition waste, plastic wrapping, wooden pallets or soil arisings. As outlined previously (under '*The production of waste (Schedule* 7(1)(e))), appropriate robust waste management procedures will be implemented by the Contractor to ensure that any minimal volumes of waste which will be generated during the construction phase do not pose a pollution / nuisance risk to the receiving environment.

In the event that any excavated soils need to be disposed of offsite as part of the proposed project, such soils/waste material will require waste classification in accordance with EPA requirements as set out in the documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2015), and 'Determining if waste is hazardous or non-hazardous' (EPA, 2018), and all relevant waste management legislations. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils/material which require offsite removal and disposal.

There are numerous dwellings located along the proposed scheme, which would be considered sensitive receptors in terms of potential dust or noise nuisance. Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in *'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes'* (NRA, 2011).

Construction will require the use of machinery such as excavators etc. and the presence of such machines may result in a temporary increase of noise. The contractor will be required to avoid leaving machinery idling and required to change reverse indicators beepers. Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (NRA, 2014). The construction works will be carried out during daytime hours.

No significant impacts from pollution or nuisances are anticipated from the proposed project.



3.3.1.5 The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge (Schedule 7(1)(g))

There are 3no. Seveso (Control of Major Accident Hazards Regulations (COMAH)) establishments within 15km of the proposed scheme; Boliden Tara Mines DAC, an Upper Tier Seveso Site located ca.1.8km north west, and Xtratherm Limited and Grassland Agro (Slane) which are Lower Tier Seveso Sites located ca. 12.4km north east and 4.5km north west respectively. Due to the distance of these Seveso sites from the proposed scheme and the activity carried out at these sites (i.e. mining at the closest site to the scheme), the proposed works are not located in a high-risk area with respect to major accidents/ disasters. Due to the nature, scale and location of the proposed project, there will be no impact on any of these Seveso sites.

A Stage 1 Flood Risk Assessment (FRA) was prepared by Atkins (2022) which '*identified that sections of the proposed site are in Flood Zone A and at risk from fluvial flooding from the Boyne River*.' The FRA also noted the following:

- The proposed cycle route will be along existing R147 Rd infrastructure and will be implemented by introducing new road markings.
- The proposed site is within an existing built-up area and there will be no alteration to existing topography/ground levels within the site.
- No new hard standing area will be included as part of the scheme and therefore there is no increased surface water runoff.
- No new construction of any building structures will be carried out and therefore no impact from displaced flood water on adjacent building / infrastructure.

In view of records of Historic flooding within the proposed site, it is recommended that in advance of the construction stage of the proposed cycle route, the nominated contractor shall have in place a flood emergency plan so that any flooding from the River Boyne during construction stage can be mitigate against.

The contractor will be required to design and implement traffic plans as required in accordance with the '*Guidance* for the Control and Management of Traffic at Road Works' (TII, 2010).

Due to the nature and scale of the works, the site setting of the proposed scheme, it is considered that the overall risk of major accidents and / or disasters associated with the proposed scheme is extremely low and does not warrant further consideration.

3.3.1.6 The risks to human health (for example, due to water contamination or air (Schedule 7(1)(h)) pollution)

Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in '*Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes*' (NRA, 2011).

Noise levels during the construction phase, will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (NRA, 2014). The Contractor will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). No significant impact on human health due to noise pollution is anticipated to occur during the operational phase of the project.

There are reported domestic use wells (GSI, 2022) within the vicinity of the proposed scheme; however the maximum excavation depth during construction will be ca. 0.5m bgl. Accordingly there will be no significant impact on human health. The proposed scheme is underlain by a locally important aquifer bedrock which is moderately productive (GSI, 2022). Groundwater vulnerability within the site is predominantly classified as 'high' while there is a small portion of 'extreme' groundwater vulnerability within the southern section of the site area. There is also an area of 'Rock at or near Surface or Karst' adjacent to the eastern side of the scheme. Due to the nature and scale of the proposed project it is not anticipated to have a significant impact on groundwater quality, resources or flow.

Given the location, nature and scale of the proposed project, the overall risk to human health is low.



3.3.2 Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development (Schedule 7(2))

The existing and approved land use (Schedule 7(2)(a))

The project will be constructed within an urban setting of Navan Town. The location of the proposed project has been detailed previously in Section 3.3.1 under Schedule 7A (1)(a).

The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground (Schedule 7(2)(b))

Refer to Section 3.2.3 under The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).

The absorption capacity of the natural environment, paying particular attention to the following areas (Schedule 7(2)(c)):

(i) Wetlands, riparian areas, river mouths

Knockunmber Mine Ponds (Site Code: WMI_MH367) is located ca.1.5km north west of the proposed project with the riparian vegetation of the River Boyne bank located immediately adjacent to the proposed scheme. All works will be within the existing road corridor and footpath and will not encroach this riparian area. Based on the location, nature and scale of the proposed project there are no significant impacts to these wetland sites anticipated.

(ii) Coastal zones and the marine environment

The proposed project is located ca. 30km from the Irish Sea. Therefore, it is not anticipated that it will have a significant impact on the coastal zone or marine environment.

(iii) Mountain and forest areas

There are no mountain or forest areas within 2km of the proposed project and therefore no impacts on this habitat type.

(iv) Nature reserves and parks

There are no nature reserves or national parks located within 15km of the proposed project.

(v) Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive

The proposed scheme is immediately adjacent to 2no. European sites; River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. 2no. other European Sites; Boyne Coast and Estuary SAC and Boyne Estuary SPA are within the potential zone of influence of the proposed project, however based on the downstream distance from the project to these sites and the dilution factor from the River Boyne along with the scale and nature of the proposed works, impacts to these sites are negated.

Based on the findings of the Stage 1 Appropriate Assessment Screening report (Atkins, 2022) there will be no potential significant adverse effects to European sites arising from the proposed project.

The proposed project does not lie within a nationally designated conservation area. There are no Natural Heritage Areas (NHA) or proposed NHA's within the proposed project site. There is 1no. NHA and 7no. pNHA's within 15km of the site boundary, the closest of which is located ca. 4.4km from the project site.

There is no anticipated potential for significant impact on areas classified or protected under legislation.

(vi) Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.

The proposed project lies within the Trim groundwater body (GWB) (EPA Code: IE_EA_G_002) which has 'good' water quality status for the period of 2013-2018 (EPA, 2022) and is currently 'At Risk' of failing to meet relevant WFD objectives. Due to the nature and scale of the works the proposed project is not anticipated to significantly impact groundwater quality.

The River Boyne is directly adjacent to the site which flows in a northern direction to outfall to the Irish Sea ca. 30km from the site at Drogheda. The Robinrath Stream flows in easterly direction through the southern portion of the site to outfall to the River Boyne. The proposed scheme is located within the Boyne Water Framework Directive (WFD) catchment area and the Boyne sub-catchment area.



Both watercourses are reported by EPA (2022) as having 'Unassigned' WFD status for the 2013-2018 monitoring period and are detailed as being 'Not at Risk' of failing to achieve the relevant WFD objectives. It is considered that due to the nature and scale of the project the works will not have a significant impact on baseline surface water quality.

Air quality in the area is reported as 'good' (EPA, 2022). Dust may be generated during the construction phase which has the potential to impact on human health. However, management of dust will be in line with best practice such as that set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011). Due to the nature and scale of the project it is anticipated that there will be no significant impact on air quality.

It is anticipated that during construction there may be an increase in noise volumes. Noise levels shall not exceed the indicative levels of acceptability for construction noise in a rural environment as set out in the TII guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (TII, 2014).

It is considered that due to the nature and scale of the works there will be no significant impact on baseline air and water quality from the proposed project.

(vii) Densely populated areas

The proposed project will be constructed within the town of Navan which is a densely populated area. Navan Town has a population of 24,545 (CSO, 2022). It is anticipated that there will be no significant negative impact on densely populated areas during construction. The creation of the cycle and pedestrian scheme will reduce the volume of vehicular traffic using the routes and, will improve air quality and noise levels and provide additional social and recreational infrastructure within the town. It is considered therefore that the proposed scheme will potentially have a positive impact on this densely populated area during the operational phase.

(viii) Landscapes and sites of historical, cultural or archaeological significance

Refer to 3.3.2 under 'A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b)).'

There is 1 no. National Inventory of Architectural Heritage (NIAH) feature located within the northern region of the project site; viaduct (Reg. No. 14010038). NIAH (2022) describe the viaduct as a 'seven arch railway viaduct over river, c. 1849, of rock faced rusticated limestone. Segment arches. Rubble sandstone boundary wall marks location of former south-western river bank.'

The northern part of the project site also briefly intersects a zone of notification for several Sites and Monuments Record (SMR) sites/features.

The northern section of the site covers the Navan Historic Core Architectural Conservation Area (ACA).⁶ As stated by Meath County Council the 6 objectives for the Navan Historic Core Architectural Conservation Area are as follows:

- 1. 'To preserve the character of the Navan Historic Core Architectural Conservation Area, its buildings, streetscape, and public realm.
- 2. To preserve the historic street pattern within the core of the town, including the laneways.
- 3. To require the retention of all structures which contribute in a positive manner to the character of the ACA.
- 4. To support and encourage the re-use of suitable redundant or obsolete buildings within the ACA.
- 5. To protect the character of the existing streetscape by giving consideration to the suitability of style, construction materials, colour and decoration to be used in any proposals for development taking place within this area and to require that all new developments within or adjacent to the ACA shall observe the existing scale of the town.
- 6. To retain historic architectural and townscape elements such as shop fronts, sash windows, gutters and down pipes, decorative plasterwork, etc. that contribute to the character and appearance of the ACA.'

The proposed project will be constructed predominantly within the footprint of the existing road network. There are no protected views or landscapes along the proposed route.

It is considered that due to the nature and scale of the works there will be no significant impact on landscapes and sites of historical, cultural or archaeological significance from the proposed project.

⁶ https://consult.meath.ie/en/consultation/meath-draft-county-development-plan/chapter/navan-historic-core-architectural-conservation-area



3.3.3 Types and characteristics of potential impacts (Schedule 7(3))

The likely significant effects on the environment of the proposed project have been evaluated taking into account the following specific criteria.

The magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected) (Schedule 7(3)(a))

The spatial extent of potential impacts is limited to the localised footprint of the proposed project (refer to Figure 1-1). Based on the location, current site setting, and the nature of the proposed project, any potential impacts (during the construction and operational phases) are not likely to be significant in magnitude.

The nature of the impact (Schedule 7(3)(b))

There will be no significant impact on the receiving environment arising from the proposed project (during the construction or operational phases).

The transboundary nature of the impact (Schedule 7(3)(c))

There is no potential for transboundary impacts as a result of the proposed project (during the construction or operational phases).

The intensity and complexity of the impact (Schedule 7(3)(d))

There will be no significant impact on the receiving environment arising from the proposed project (during the construction or operational phases).

The probability of the impact (Schedule 7(3)(e))

The probability of impacts on the receiving environment is low given the following considerations:

- The receiving environment is not considered to be at risk of significant impact due to the nature and scale of the proposed project; and,
- The Contractor will be obliged to implement standard best practice procedures prior to commencement of the proposed project including all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.

The expected onset, duration, frequency and reversibility of the impact (Schedule 7(3)(f))

The probability of impacts on the receiving environment is considered to be low, as previously outlined. Therefore, there shall be no requirement for the reversibility of the impacts caused by this project (during the construction or operational phases).

The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(3)(g))

As previously detailed no significant cumulative impacts associated with the project (during the construction or operational phases) have been identified, arising from other existing and/or approved projects. Refer to Section 3.3.1 under '*Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)* (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b)).

The possibility of effectively reducing the impact (Schedule 7(3)(h))

Significant effects on the receiving environment are not anticipated as a result of the provision of the proposed scheme (during the construction or operational phases).

3.4 Potential for Significant Effects on the Receiving Environment

All relevant information as required under Schedule 7A has been provided on behalf of Meath County Council and is presented within Section 3.2 of this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed Planning and Development Regulations (2001-2021) (Schedule 7), as presented within Section 3.2 of this screening report.

Based on the information provided within Section 3.2 and 3.3 of this report, and summarised below, it is considered that due to the size, nature, and characteristics of the proposed development, no significant effects on the receiving environment are expected; hence the preparation of a sub-threshold EIAR is not required.

3.5 Screening Conclusion

This EIA screening report has been carried out in accordance with the Planning and Development Regulations as amended 2001- 2022 (which give effect to the provisions of EU Directive 2014/52/EU), and the Roads Acts



1993-2021. The report assessed the impact of the Navan Cycle Scheme – R147 Martha's Bridge to Circular Road in conjunction with committed developments in the surrounding area.

Based on all available information, and taking account of the scale, nature and location of the proposed project it is our opinion that the preparation of an EIAR is not a mandatory requirement (under Section 50 of the Roads Acts 1993-2021). The project is deemed a sub-threshold development; hence the potential for significant environmental effects arising as a result of the proposed project has been evaluated, in accordance with the requirements of Schedule 7A and Schedule 7 of the Planning and Development Acts 2001-2021.

Key findings are summarised as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area;
- Limited noise, vibration and dust emissions may be generated during construction; however, this is anticipated to be minimal in effect and will cause no significant impacts;
- There will be no significant impact on biodiversity, groundwater, surface water or traffic; and,
- There will be no significant impacts on recorded monuments or historic features.

In summary, no significant adverse impacts to the receiving environment will arise as a result of the proposed scheme.

Accordingly, we consider that the preparation of an EIAR is not required for the Navan Cycle Scheme – R147 Martha's Bridge to Circular Road Scheme. However, the competent authority will ultimately determine whether an EIAR is required or not.



4. References

Atkins (2022) Screening for Appropriate Assessment.

Atkins (2022) Flood Risk Assessment.

CIRIA (2001) Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors.

- Department of Housing, Planning and Local Government, (2018), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.
- Department of the Environment, Community & Local Government. (2013), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.
- Department of the Environment, Heritage and Local Government (2003) Guidance for Consent Authorities regarding sub-threshold Development. Published by the Stationery Office.
- Environmental Protection Agency (EPA), 2022. 'Guidelines on the information to be contained in Environmental Impact Assessment Reports'
- Environmental Resources Management (2001) Guidance on EIA Screening. Published by the European Commission

European Commission, (2015) Environmental Impact Assessment – EIA, Overview, Legal context.

European Council Directive (EC) 85/337/EU of 1985 on Environmental Impact Directive

European Council Directive (EC) 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

European Council Directive (EU) 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.

- European Council Directive (EU) 2011/92/EU on the assessment of the effects of certain public and private projects on the environment
- European Council Directive (EU) 2014/52/EU of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

Fossette, J. (2000). A Guide to habitats in Ireland. The Heritage Council.

Geological Survey of Ireland (GSI) 2021. https://www.gsi.ie/en-ie/Pages/default.aspx. (Consulted March 2022).

Health and Safety Executive. Notified Seveso Establishments https://www.hsa.ie/eng/Your_Industry/Chemicals/Legislation_Enforcement/COMAH/List_of_Establishments/ (Consulted May 2022).

Local Government (Planning and Development Act) 1963.

Meath County Development Plan 2021-2027

National Inventory of Architectural Heritage (2021). www.buildingsoflreland.com- (Consulted May 2022).

National Monuments Service, Historic Environment Viewer <u>http://webgis.archaeology.ie/historicenvironment/</u> (Consulted May 2022).

National Parks & Wildlife Service. https://www.npws.ie/protected-sites/spa. (Consulted May 2022).

Navan Development Plan 2009-2015 Variation No. 3 (adopted 2019)

NRA (2009). Guidelines for Assessment of Ecological Impacts on national road schemes. Published by National Roads Authority.

NRA (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes. Published by the National Roads Authority

NRA (2014) Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes. Published by the National Roads Authority

Office of Public Works (2009). 'The Planning System and Flood Risk Management; Guidelines for Planning Authorities'.

Office of Public Works (2021). OPW National Flood Hazard Mapping Web Site. Available at: - <u>http://www.floodmaps.ie/</u> (Consulted May 2022)

Statutory Instrument S.I. No. 296 of 2018. European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.



Statutory Instrument S.I. No. 349/1989. European Communities (Environmental Impact Assessment) Regulations, 1989.

Statutory Instrument S.I. No. 600 of 2001. Planning and Development Regulations 2001.

WaterFrameworkDirective(2021)http://watermaps.wfdireland.ie/NsShare_Web/SessionTimeout.aspx?Culture=&UICulture=&Theme=Geocortex_Essentials&referrer=http%3A%2F%2Fwatermaps.wfdireland.ie%2FNsShare_Web%2FViewer.aspx%3FSite%3DNsShare%26ReloadKey%3DTrue (Consulted May 2022)



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