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Dunshaughlin Public Realm Scheme

Appropriate Assessment Screening Report

August 2023



PROJECT NAME: Dunshaughlin Public Realm Scheme

REPORT NAME: Appropriate Assessment Screening Report

Document Control Sheet	
Document Reference	11514_Meath County Council _A01
Report Status	Issue
Report Date	August 2023
Current Revision	A01
Client:	Meath County Council
Client Address:	Meath County Council, Buvinda House, Dublin Road, Navan, Co. Meath
Project Number	11514

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Revision	Description	Author:	Date	Reviewed By:	Date	Authorised by:	Date
D01	Draft for Internal Review	DMcH	17/04/2023	RM	18/04/2023	MMcD	19/04/2023
A01	Issue	SOR	09/05/2023	LK	16/05/2023	JOE	17/05/2023

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1.0 INTRODUCTION

Meath County Council is proposing to upgrade the public realm space, and associated streetscape works in the town centre of Dunshaughlin, Co. Meath.

TOBIN Consulting Engineers (hereafter referred to as TOBIN) has prepared this Screening Report for Appropriate Assessment (AA) on behalf of Meath County Council.

The purpose of this report is to inform the AA process, which is carried out by the competent authority (in this case Meath County Council). Appropriate Assessment is an assessment of whether a plan or project, alone and/or in-combination with other plans or projects, may have significant effects on a European site, collectively known as the Natura 2000 network, in view of the site's conservation objectives.

The proposed development design has sought to, in as far as possible, avoid impacts on European sites. This report considers the final design. It determines if direct, indirect, or in-combination effects could arise, or if there is uncertainty regarding potential effects.

This report provides information to assist the competent authority in undertaking a Screening Assessment of the proposed development and was informed by a desktop study undertaken by TOBIN Senior Ecologist, Sinead O' Reilly (B.Sc., M.Res.), and senior reviewed by TOBIN Associate Director and Lead Ecologist, Laura Kennedy (M.Sc.).

2.0 THE APPROPRIATE ASSESSMENT PROCESS

The AA process is an assessment of significant effects of a plan or project, alone and/or in-combination with other plans or projects, on the conservation objectives of a European site(s). The Natura 2000 network is made up of European sites including Special Protection Areas (SPAs), established under the EU Birds Directive (2009/147/EC) (more generally referred to as the 'Birds Directive') and Special Areas of Conservation (SACs), established under the EU Habitats Directive (92/43/EEC) (more generally referred to as the 'Habitats Directive'). The Natura 2000 network helps provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats.

The Screening Stage of the AA process identifies any likely significant effects upon European sites from the proposed development alone or in-combination with other projects or plans. A series of questions are asked during the Screening Stage of the AA process to determine:

- whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European site; and
- whether the project or plan will have a potentially significant effect on a European site, either alone or in-combination with other projects or plans, in view of the site's conservation objectives or if residual uncertainty exists regarding potential impacts.

2.1 LEGISLATIVE CONTEXT

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the 'Habitats Directive', provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 network.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for AA:

'Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'

Article 6(4) states:

'If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.'

The provision for an AA is transposed into Irish law by Part XAB of the Planning and Development Act 2010 (as amended). Section 177U (4) of the said Acts provides for screening for Appropriate Assessment as follows:

'The competent authority shall determine that an appropriate assessment of [...] a proposed development [...] is required if it cannot be excluded, on the basis of objective information, that the [...] proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.'

Section 177U (5) provides as follows:

'The competent authority shall determine that an appropriate assessment of a [...] proposed development, [...], is not required if it can be excluded, on the basis of objective information, that the [...] proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.'

An AA should be based on best scientific knowledge and the competent authority should ensure that expertise such as ecological, geological, and hydrological are utilised, where relevant.

The Court of Justice of the European Union (CJEU) has made several rulings in relation to AA, regarding when it is required, its purpose, and the standards it should meet. Consideration has been given to the evolution in interpretation and application of directives and national legislation arising from jurisprudence of the European and Irish courts, in respect of Article 6 of the Habitats Directive.

2.2 STAGES INVOLVED IN THE APPROPRIATE ASSESSMENT PROCESS

There are four potential stages in the AA process; the result of each stage determines the requirement for assessment under the next.

Stage 1: Screening / Test of Significance

This process identifies the likely significant effects upon a European site from a proposed project or plan. Its purpose is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project which is not directly connected with or necessary to the management of the site as a European site, individually or in-combination with other plans or projects is likely to have a significant effect upon the European site, in view of its conservation objectives. A project may be 'screened-in' if there is a possibility or uncertainty of possible effects upon the European site, requiring a Stage Two AA. If there is no evidence to suggest significant effects due to the proposed plan or development the project is 'screened-out' from further assessment.

Stage 2: Appropriate Assessment

Consideration is given if potential impact(s) of a project or plan could cause likely significant effects to the integrity of surrounding European sites, either alone or in-combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where likely significant effects have been identified, an assessment of the potential mitigation to avoid/reduce such impacts is required. A NIS is often produced at this stage to inform the AA which is undertaken by the competent authority. This stage is required where uncertainty of effect arises, or a potential effect has been defined which requires further procedures/mitigation to remove uncertainty of a defined impact.

Stage 3: Assessment of Alternatives

This stage of the potential process arises where adverse effects on the integrity of a European site cannot be excluded and examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European site. However, in circumstances where there will not be any adverse effects on any European site, the developer places no reliance upon this third stage of the process in the context of this application for planning permission for the proposed development.

Stage 4: Assessment Where Adverse Effects Remain

This is the derogation process of Article 6(4), which examines whether there are imperative reasons of overriding public interest [IROPI] for allowing a project to proceed where adverse effects on the integrity of a European site have been predicted. Compensatory measures must be proposed and assessed as part of this stage and the EU Commission must be informed of the compensatory measures. Again, the developer places no reliance upon this stage of the process in the context of the application for planning permission for the proposed development.

3.0 METHODOLOGY

3.1 LEGISLATION AND GUIDANCE

This report has been prepared having regard to the following guidance:

- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg (European Commission [EC] 2000)¹.

¹ Communication from the Commission on the Precautionary Principle: <https://op.europa.eu/en/publication-detail/-/publication/21676661-a79f-4153-b984-aeb28f07c80a/language-en>

- Nature and Biodiversity Cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg (EC, 2006)².
- Circular L8/08 – Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Department of Environment, Heritage and Local Government (DoEHLG, 2008)³.
- Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (EC, 2018)⁴.
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013)⁵.
- Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government (DoEHLG, 2010)⁶.
- Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg (EC, 2007)⁷.
- Assessment of Plans and Projects in Relation to Natura 2000 Sites – Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC, 2021a)⁸;
- Appropriate Assessment Screening for Development Management. Office of the Planning Regulator (OPR) Practice Note PN01 (OPR, 2021)⁹.
- Guidance Document on the Strict Protection of Animal Species of Community Interest Under the Habitats Directive (EC, 2021b)¹⁰.

This report has similarly been prepared with regard to relevant rulings by the CJEU, the High Court, and the Supreme Court. A review of Article 6 of the Habitats Directive, Rulings of the European Court Justice (Sundseth & Roth, 2014) and other relevant rulings was undertaken¹¹.

Definitions of conservation status, integrity and significance used in this assessment are defined in accordance with 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC' (EC, 2018):

- Favourable conservation status (FCS) can only be defined and achieved at the level of the natural range of a species or a habitat type. A broad conservation objective aiming at achieving FCS can therefore only be considered at an appropriate level, such as for example the national, biogeographical or European level. The conservation measures have to correspond to the ecological requirements of the natural habitat types in Annex I

² Nature and Biodiversity Cases: https://friendsoftheirishenvironment.org/images/EULaw/ecj_rulings_en.pdf

³ Circular L8/08: <https://www.npws.ie/sites/default/files/general/circular-L8-08.pdf>

⁴European Commission (2018)

https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_6_nov_2018_en.pdf

⁵Interpretation Manual:

https://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/Int_Manual_EU28.pdf

⁶Appropriate Assessment of Plans and Projects:

https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

⁷ Guidance Document on Article 6 (4):

https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf

⁸Assessment of Plans and Projects in Relation to Natura 2000 sites:

https://ec.europa.eu/environment/nature/natura2000/management/pdf/methodological-guidance_2021-10/EN.pdf

⁹Appropriate Assessment Screening for Development Management: 9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf

¹⁰ EC Guidance on Species Protection:

https://ec.europa.eu/environment/nature/conservation/species/guidance/index_en.htm

¹¹ Irish Legal Information Initiative: <https://irlii.org/leading-cases-environmental/>

and of the species in Annex II present on the site. The ecological requirements of those natural habitat types and species involve all the ecological needs which are deemed necessary to ensure the conservation of the habitat types and species. They can only be defined on a case-by-case basis and using scientific knowledge.

- The integrity of a European site is defined as the coherent sum of the site's ecological structure, function, and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated.
- Significant effect should be determined in relation to the specific features and environmental conditions of the protected site concerned by the plan or project, taking particular account of the site's conservation objectives and ecological characteristics.

4.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

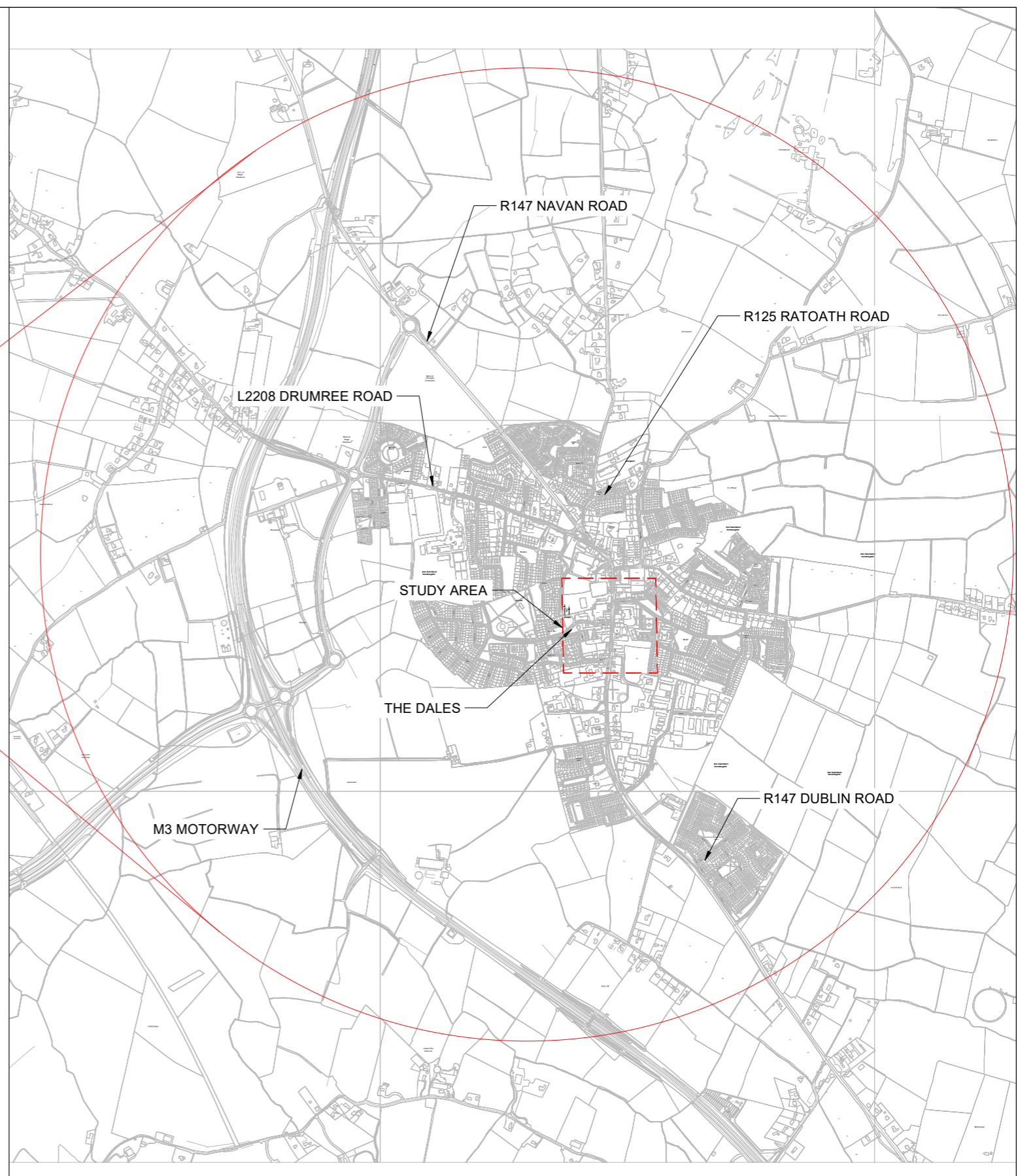
4.1 SITE LOCATION

The proposed development site of the Dunshaughlin Public Realm Scheme is situated along the R147 main street of Dunshaughlin, Co. Meath. The surrounding land is predominantly comprised of residential and commercial properties.

The location of the proposed development site is indicated on Figure 4-1.



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Rev	Date	Description	By	Chkd.
P01	26.04.23	DRAFT	EL	RM

Client: comhairle chontae na mí meath county council

Project: **Dunshaughlin Public Realm Scheme**

Title: **Figure 4-1:Location Map**

Prepared by: D. McHugh

Checked: RM

Date: 26.04.23

Project Director: J.O'F

Drawing Status: Draft

Scale @ A1: N/A

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Drawing No.: **11500-0003**

Revision: **P01**

4.2 DETAILS OF THE PROPOSED DEVELOPMENT

The Dunshaughlin Public Realm Scheme involves the proposal to provide streetscape upgrades and associated public realm upgrades within Dunshaughlin town, Co. Meath.

Key areas have been identified for improvements and this will include better walking facilities, cycle facilities, pedestrian focused crossings, and designated and rationalised parking areas.

Currently, the traffic in Dunshaughlin is a mixture of heavy goods vehicles (HGVs), bus and utility service vehicles, as well as regional and local car traffic. Traffic is observed as relatively significant and constant throughout the day, particularly at peak times. Typical Average Annual Daily Traffic (AADT) values of over 10,000, move along the R147 regional road. The R147 provides the sole single carriageway link from the south to the north side of Dunshaughlin, with the M3 national motorway running to the west of the town with a singular connection point along the northwest side.

The proposed development will include site infrastructure, junction improvement works, streetscape upgrades, public realm upgrades, on-street parking and rationalising of on-street parking provision. No greenfield areas will be required for the works, with pre-existing infrastructure in place across the full extent of the scheme.

The proposed development will comprise of:

- Amendments to the junctions of the R147 main street and 'The Dales' side road;
- Amendments to the junctions of the R147 main street and 'The Bungalows' side road;
- Amendments to the junctions of the R147 main street and the 'Supple Park' side road;
- Streetscape upgrades along the R147 main street;
- Streetscape upgrades along 'The Dales' side road;
- Public Realm upgrades to Dunshaughlin Courthouse environs (to be carried out under a separate planning application);
- Rationalising of on-street parking provision; and
- All associated site and ancillary highway works including (but not limited to):
 - Importing and depositing fill;
 - Compacting fill;
 - Milling existing pavements;
 - Signalised pedestrian crossings provided at all legs of the junction-controlled push button pedestrian crossing (incorporated into the traffic signals) to include road marking, tactile paving and all associated ducting, cabling and dropped kerbing;
 - Removal of bollards;
 - Removal and replacement of elements of the existing pavement;
 - Removal of existing kerbing and installing new kerbing (100mm) and include drop kerbing (6-25mm for pedestrian and vehicle use respectively);
 - Removal of existing footpaths and installing new footpaths (typically between 2m and 3m wide);
 - Removal of construction waste to a licenced waste facility;
 - Drainage utilities for new surface water connections;
 - Public lighting;
 - New signage and road markings;
 - New cycle way;
 - Construction compound and storage facilities;
 - Earthworks (excavation and re-forming of sub-base layers);

- Site clearance; and
- Site security.

The proposed site layout and proposed works are shown on Drawing No. 11514-1003 – 04 and 11514-1008-11 which are included in the Design Report, as part of the Planning Application.

4.3 CONSTRUCTION PHASE ACTIVITIES

4.3.1 *Construction Phase Description*

The proposed development site footprint is approximately 8,504m². The main locations and associated features of the proposed development works are described below.

4.3.1.1 *Courthouse Public Realm Upgrades (to be carried out under a separate Planning Application)*

- Upgrading the existing front area of the Courthouse environs, removing car priority and improving the permeability and potential for community use.
- The works here will include paving provisions, using the existing pavement as a basecourse and an amended landscaping design.
- These works design, planning and construction will form part of a separate Planning Application which will run in tandem with the Dunshaughlin Public Realm Scheme.

4.3.1.2 *Upgrades to the R147 / The Dales Junction*

- A raised table construction and the installation of a signalised junction to facilitate pedestrian crossings at the focal point of movements within the town.
- The existing pavement will be milled in order to reach the required formation level for the adjoining area.
- The excavated material will be disposed of offsite to a licenced landfill.

4.3.1.3 *Upgrades to the R147 / The Bungalows Junction*

- A raised table construction and the installation of controlled crossing points for pedestrians to access the residential areas of the bungalows located behind the main street to the east.
- The existing pavement will be milled in order to reach the required formation level for the adjoining area. The excavated material will be disposed offsite to a licenced landfill.

4.3.1.4 *Upgrades to the R147 / Supple Park Junction*

- A raised table construction and the installation of controlled crossing points for pedestrians to access the residential areas of the bungalows located behind the main street to the east.
- The existing pavement will be milled in order to reach required formation level for the adjoining area. The excavated material will be disposed offsite to a licenced landfill.

4.3.1.5 *R147 Main Street Public Realm Upgrade Works*

- Inclusion of paved / new concrete footways throughout the project extents. Existing paved footways be taken up, cleaned and reused where possible. Damaged materials will be disposed offsite to a licenced landfill.
- Milling of pavement will be carried out and include the narrowing of carriageway and rationalising of parking bays. All material will be disposed offsite to a licenced landfill.
- New gullies will be installed to the existing sealed surface water drainage system.

4.3.1.6 The Dales Public Realm Upgrade Works

- Inclusion of paved / new concrete footways throughout. Existing bituminous footways will be disposed offsite to a licenced landfill.
- Milling of pavement will be carried out with narrowing of carriageway and formalizing of parking spaces along the westbound side. All material will be disposed offsite to a licenced landfill.
- New gullies will be installed to the existing sealed surface water drainage system.

4.3.2 Duration of Proposed Construction Phase Activities

The construction phase of the proposed development is expected to commence in Q3 of 2024 and take approximately three to four months to complete.

The total number of construction staff on-site will vary during the construction phase of the works, but are expected to peak at approximately 10 persons.

Normal working hours during the construction period are expected to be Monday to Friday 08:00 to 17:00 hours. During certain stages of the construction phase, it is expected that some work will have to be carried out outside of normal working hours to avoid road closures however this will be kept to a minimum. Construction light will be used during the three to four months when required.

4.3.3 Footpaths

Footpaths will be split between concrete and new paved footways. New footpaths (1.8m to 3m wide with localised narrowing due to local constraints) will be constructed on both sides of the main street, including a new cycle way. Only footpaths being widened at any one time, will be closed off to the public.

4.3.4 Cross Section Crossfall and Superelevation

The existing conditions will be maintained with localised provision of buildouts at the junctions. This includes junction narrowing in accordance with the Design Manual for Urban Roads and Streets (DMURS)¹².

4.3.5 Lighting

The upgrading of the existing street lighting columns will be assessed and upgraded if necessary to provide adequate lux levels. The locations of existing lighting columns will be retained where possible. If streetlights need to be moved, this will be subject to agreement with the service provider, and all cables will be installed underground. Six new traffic lights, including primary, secondary and tertiary signal heads on all approaches will be erected.

4.3.6 Pedestrian Pavement and Kerbing

The existing pavement will be replaced along both sides of the main street and along the Dales Road. A 100mm height kerbing standard will be used in this urban area. This will be precast kerbing (granite or similar). The proposed paving works are shown on Drawing No. 11514-1003 – 04 in the Design Report, included as part of the Planning Application.

¹² Guidelines | DMURS design DTTAS

4.3.7 Signage

Existing traffic signs will be utilised where possible and moved to suit the new footpaths and kerb lines. New traffic signs will also be erected. The new signage will be a bespoke sign based on the requirements of the Traffic Signs Manual (TSM) and formulated in accordance with Meath County Council to be finalised at detailed design. In accordance with DMURS, signage will be kept to a minimum.

4.3.8 Drainage

The drainage design for the scheme implements the concepts of Sustainable Drainage Systems (SuDS). New kerb drainage will be installed. Cycle friendly gullies will be installed and connected to the existing sealed surface water drainage system and the existing drainage network will be used. No new outfalls will be created with the proposed works.

4.3.9 Traffic Control

Traffic management will be required, and it is likely that the R147 will be reduced to two-way lanes where possible or have single lane traffic with traffic control in place. It is envisaged that this will be required for a duration of the works.

4.3.10 Pavement

The existing pavement will be replaced along both sides of the main street and along the Dales Road as shown in Drawing No. 11514-1003 – 04 in the Design Report. A 100mm height kerbing standard will be used in this urban area. The mainline pavement works will consist of inlay pavement design with pavement layers has been designed in accordance with the TII Publications Standards and in order to comply with PE-SMG-02002 (2010) “Traffic Assessment” and DN-PAV-03021 (2022) “Analytic Pavement & Foundation Design”.

The depth of the road base layers will be determined from in-situ California Bearing Ratio (CBR) readings taken along the route at the depth of the proposed formation layer. The proposed paving works are shown on Drawing No. 11514-2025 to 2027 which is included in the Design Report.

4.3.11 Road Surface

The pavement design load for this section of road was based on the volume of commercial vehicles travelling along the road measured in one direction. The design period for this pavement is 20 years.

Currently only one alternative route is available for commercial vehicles (M3 Motorway) and the percentage of Commercial Vehicles of Annual Average Daily Traffic (AADT) would be less than 8%. Using this figure and the 10,000 AADT obtained from procured traffic count surveys undertaken in January 2023, the design thickness of combined asphalt layers proposed is a minimum of 200mm.

Various pavement options are available, but for this scheme and given the urban nature, a flexible pavement type is envisaged, replacing the top 200mm of the existing road pavement build up. Accordingly, binder grade 70/100 has been selected for its flexible characteristics.

Given that the road is regional and situated in an urban area, it is likely that the finalised pavement design will incorporate a minimum depth of 200mm road pavement consisting of

Asphaltic Concrete subbase and binder with a dressing of Stone Mastic Asphalt (SMA) surface course to minimise vehicular noise.

4.3.12 Road Marking

Appropriate road markings and reflecting road studs, in accordance with the TSM, will be used along this upgraded section of road, where required, to clearly identify carriageways, priorities and turning movements. Junction road marking will be upgraded to reflect the change in layout.

4.3.13 Plant and Equipment

Mobile plant and equipment will be employed on-site for the proposed development for various activities such as moving materials within processes and transporting materials into the site. It is envisaged that the required mobile plant and equipment will be as follows:

- Digger and dumper (typically <15 Tonne for reduced working space in the urban environment;
- Roller compactors (Up to typically <10 Tonne);
- Rigid haulage trucks (up to 20 Tonne) for import and export of material; and
- Pavers and milling machines as required.

4.4 OPERATION PHASE ACTIVITIES

The operation phase of the proposed development is expected to be characterised by the movement of people on the new infrastructure. The traffic levels of people and vehicles, as well as any local maintenance activities, are not expected to differ from the baseline/present conditions.

5.0 DESCRIPTION OF THE EXISTING ENVIRONMENT

A description of the receiving environment is provided hereunder.

5.1 DESKTOP STUDY AND INFORMATION SOURCES

A desktop study was undertaken to inform this screening assessment. The desktop study comprised a review of the following key datasets and information sources:

- Identification of European sites within the Zone of Influence (ZoI) of the proposed development area through the identification of potential pathways/links from the proposed development area and European sites and/or supporting habitats.
- Review of the National Parks and Wildlife Service (NPWS) site synopsis, Natura 2000 data forms and Conservation Objectives for European sites within the ZoI (Accessed [May 2023] via <https://www.npws.ie/protected-sites>).
- NPWS datasets on Annex I habitats and Annex II species.
- Review of available literature and web data. This included a detailed review of the NPWS and National Biodiversity Data Centre (NBDC) websites including mapping and available reports for relevant sites and in particular Qualifying Interests (QIs) and Special Conservation Interests (SCIs) described and their Conservation Objectives.
- Review of Inland Fisheries Ireland (IFI) research data.
- Water Framework Directive (WFD) website: (Accessed [May 2023] via <https://www.catchments.ie/guide-water-framework-directive/>).

- GSI Online mapping: (Accessed [May 2023] via <http://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228>).
- Environmental Protection Agency (EPA) Mapping database: (Accessed [May 2023] via <https://gis.epa.ie/EPAMaps/AAGeoTool>).
- Review of previous ecological assessments undertaken within the area.

In addition, aerial photography (Google Maps, Bing Maps) and mapping (Ordnance Survey of Ireland, Geological Survey of Ireland) were used to identify non-designated habitats such as rivers, woodlands, and hedgerows of local ecological importance.

5.2 EXISTING ENVIRONMENT

As noted, the proposed development site is located along the R147 regional road within Dunshaughlin town, with some additional works taking place along 'The Dales' side road located off the main street. The proposed development site is situated in an urban setting. Habitats present within the site include buildings and artificial surfaces (BL3), stonewalls and other stonework (BL1), flower beds and borders (BL4) and scattered trees and parkland (WD5).

The nearest river waterbody is the Rathoath stream_010 (waterbody code: IE_EA_08R010150). This waterbody has been classified with a "Poor" water quality status for the period 2016-2021. This waterbody is located 270m east of the proposed works. A review of the EPAs' maps show that the proposed development is not hydrologically connected to this waterbody.

The proposed development site is located within the Lusk-Bog of the Ring groundwater body (groundwater body code: IE_EA_G_014), with a small section of the north-eastern boundary occurring within the Trim groundwater body (IE_EA_G_002). EPA published and latest available WFD status classification for the period 2016-2021 indicates that both the Lusk-Bog of the Ring and the Trim groundwater bodies are both at "Good" qualitative (chemical) status and "Good" quantitative status (i.e., not overexploited), thus at "Good" status overall and meeting WFD "Good status" objectives.

According to the 3rd cycle of the River Basin Management Plan (RBMP) for Ireland, covering the period 2022-2027 (EPA, 2021), the Lusk-Bog of the Ring groundwater body is "At Risk" of failing to achieve WFD "Good" status objectives in 2027. The Trim groundwater body to the north and west of the site boundary is also considered "At Risk", with domestic wastewater identified as the significant pressure for the groundwater body (EPA, 2021). The Lusk-Bog of the Ring and Trim groundwater bodies and their associated pressures are not relevant to groundwater conditions within the site boundary.

A review of the NBDC grid square reports for the grid square within which the proposed development lies (1km grid square, N9652), indicates that no Annex II species have previously been recorded within, or in close proximity to the proposed development site. No Annex I bird species listed on the EU Birds Directive (2009/147/EC) have previously been recorded within, or in close proximity to the proposed development site.

No Annex I habitats of the EU Habitat Directive were recorded within the proposed development site. In addition, no plant species listed under the Flora Protection Order (FPO) have been recorded within the proposed development site.

There is one record of an invasive non-native species (INNS) plant, Japanese Knotweed

(*Fallopia japonica*), listed in Part 1 of the Third Schedule of the SI 477/2011, that has been recorded as present with the N9652 1km grid square.

There are records of three bat species, Leisler's bat (*Nyctalus leisleri*), Pipistrelle (*Pipistrellus pipistrellus sensu lato*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*) recorded as present within the N9652 1km grid square. Other protected species recorded within the 1km grid square include; Common Frog (*Rana temporaria*) and West European Hedgehog (*Erinaceus europaeus*).

There are no European sites located within or adjacent to the proposed development site. The closest European site is the River Boyne and Blackwater SAC (Site Code: 002299) and the River Boyne and River Blackwater SPA (Site Code: 004232) which are located approximately 14km north-west and north of the proposed development site. The proposed development site is not hydrologically connected to any European site. Further information on European sites within the Zone of Influence (Zol) of the proposed development is outlined in Section 6.3 of this report.

6.0 OVERVIEW OF POTENTIAL IMPACTS

An overview of potential impacts from the construction and operational phases of the proposed development, on the receiving environment is discussed hereunder. There are several elements associated with the proposed development that may give rise to direct and indirect impacts on the receiving environment that could have potential to result in likely significant effects on European sites within the Zol of the proposed development.

6.1 CONSTRUCTION PHASE

6.1.1 Habitat Loss

The proposed development footprint is approximately 8,504m² (0.8ha) in size. Due to the small scale and temporary nature of the proposed development, habitat loss will be minimal. The habitats within the proposed development site include built and or managed habitats, of low ecological value. One mature tree currently located along the existing footpath on the main street will be removed. This is not deemed to have bat roost potential due to its size and location (urban environment with street lighting). Additional trees are proposed to be planted along the Dale Road to replace this tree.

The majority of the aforementioned habitats within the development footprint are buildings and artificial surfaces. The artificial surfaces which are proposed to be removed and replaced with upgraded artificial surfaces, have been appraised as being of local low ecological value.

6.1.2 Surface Water Runoff

It will be necessary to remove road surface, kerbs and pavement material from the proposed development site to facilitate the construction of the new road surfaces, kerbs and pavements. The excavated material will be disposed offsite to a licenced landfill.

Site clearance, excavation activities and the stockpiling of material have the potential to result in the runoff of sediment laden surface water, if not appropriately managed, which could result in an increase of suspended solids and nutrients depositing within nearby watercourses.

Surface water runoff could be contaminated by sediment, or leaks and spills of fuel or oil from vehicles/machinery or other construction material (e.g. concrete), which could result in the degradation of water quality and impacts to aquatic fauna and flora.

However, as the proposed development site does not intersect any nearby river waterbody (Section 5.2), there is no potential for sediment laden runoff and/or construction pollution to enter the nearest watercourse. Surface water runoff will drain instead to the existing drainage network.

6.1.3 Dust

Excavation activities may result in the temporary generation of dust in the locality of the works area. However, the proposed development site is located on an existing road and the extent of the works are minor. As a result, it is likely the dust created by the proposed development will be minimal and will not extend greater than 50m from the proposed development.

6.1.4 Invasive Species

No INNS have been recorded within the proposed development site. However Japanese Knotweed has been recorded 280m northwest of the site boundary.

As no INNS have been recorded within the proposed development site, there is no potential for the spread of invasive species around the site or offsite. There is, however, potential that the movement of construction vehicles and material to and from the site may result in the introduction of invasive species if not appropriately managed. The introduction of invasive plant species has the potential to negatively impact habitats by shading and competitively excluding native plant species, providing less favourable habitats for native fauna (TII, 2020). However, the likelihood of this impact occurring is considered to be low given the lack of suitable habitat for the establishment of plant species within the proposed development (i.e. built environment).

6.1.5 Disturbance (Noise and Lighting)

The proposed construction works will result in an increase in noise levels during the construction phase, as well as an increase in personnel and traffic movement to and from the site. It should be noted that no rock breaking or blasting will be required during the construction works.

Due to the proposed development site being located within an urban area, the noise levels during the proposed development works period are not expected to differ significantly from the local baseline levels. Therefore, no significant impact due to the temporary rise of local noise levels is expected.

It is envisaged that construction light will be required during the construction works; however it would be for a short duration and in exceptional circumstances.

6.2 OPERATIONAL PHASE

The operation phase of the proposed development is expected to be characterised by the movement of traffic on the new infrastructure. The traffic levels of vehicles, as well as any local maintenance activities, are not expected to differ from the baseline/present conditions.

The proposed development may result in an increase in artificial lighting (for pedestrian safety) in the immediate vicinity of the proposed development site, however, due to the area already being built-up, this is likely to have a negligible impact.

6.3 DETERMINING THE LIKELY ZONE OF INFLUENCE

As an initial approach, all European sites within a 15km radius were examined. Additionally, the source-pathway-receptor model (OPR, 2021) was used to identify viable pathways between the proposed development and European sites which may result in likely significant effects on their qualifying interests or special conservation interests. This conceptual model is a standard tool in environmental assessment. In order for an effect to occur, all three elements of this model must be in place. The absence or removal of one of the elements of the model means there is no likelihood for the effect to occur. In the context of the proposed development, the model comprises:

- Source (s) – potential impacts from the proposed development, e.g. the runoff of sediment/construction pollution;
- Pathway (s) – hydrological, physical or ecological connectivity between the proposed development and the European site; and
- Receptor (s) – qualifying interests and/or special conservation interests of the European sites.

The Chartered Institute of Ecology and Environmental Management (CIEEM) defines the ZoI of a project as the area(s) over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities.

In order to establish the ZoI of the proposed development, the likely key biophysical changes associated with the works were determined having regard to the project characteristics set out in Section 4.0 of this report. The ZoI of the proposed development is described hereunder.

Impacts associated with the loss of habitats will be confined to within the proposed development site boundary. The ZoI in this case was, therefore, defined as all lands within the Planning Application Boundary.

Hydrological linkages between the proposed development and European sites (and their QIs/SCIs) can occur over significant distances. However, any effect will be site specific depending on the receiving water environment and nature of the potential impact. In the case of the proposed development, the existing drainage network will be used for surface water runoff. Therefore, surface water runoff from the proposed development will be treated with the existing stormwater drainage, prior to release to the receiving environment. Thus, the ZoI in relation to surface water runoff, is considered to not extend beyond the nearest drain from the proposed development.

The spatial limit of dust impacts was established as 50m in accordance with the *'Guidance on the Assessment of Dust from Demolition and Construction'*¹³. Therefore, the ZoI for dust impacts is 50m from the proposed development boundary.

Noise from the construction activity has the potential to cause disturbance to resting, foraging and commuting qualifying and special conservation interest species. Individual species will

¹³ Holman, C., Barrowcliffe, R., Birkenshaw, D., Dalton, H., Gray, G., Harker, G., Brett, P., Laxen, D., Marner, B. and Marsh, D., 2014. IAQM Guidance on the Assessment of Dust from Demolition and Construction. *Institute of Air Quality Management: London, UK.*

elicit differing behavioral responses to disturbance at different distances from the source of disturbance. Below is a summary of the documented Zol for varying species.

- Transport Infrastructure Ireland (formally the National Roads Authority) has produced a series of best practice planning and construction guidelines¹⁴ for the treatment of certain protected mammal species (e.g. otter), which indicate that disturbance to terrestrial mammals would not extend beyond 150m.
- Cutts *et al.* (2013)¹⁵ notes that different types of disturbance stimuli are characterised by different avifaunal reactions, however as a general rule of thumb, a distance of 300m can be used to represent the maximum likely disturbance distance for waterfowl.

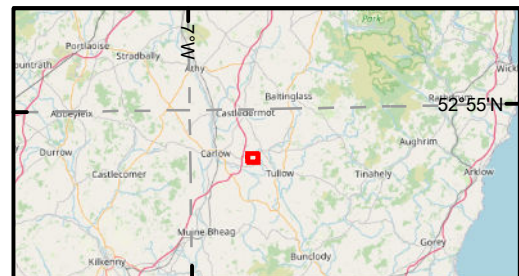
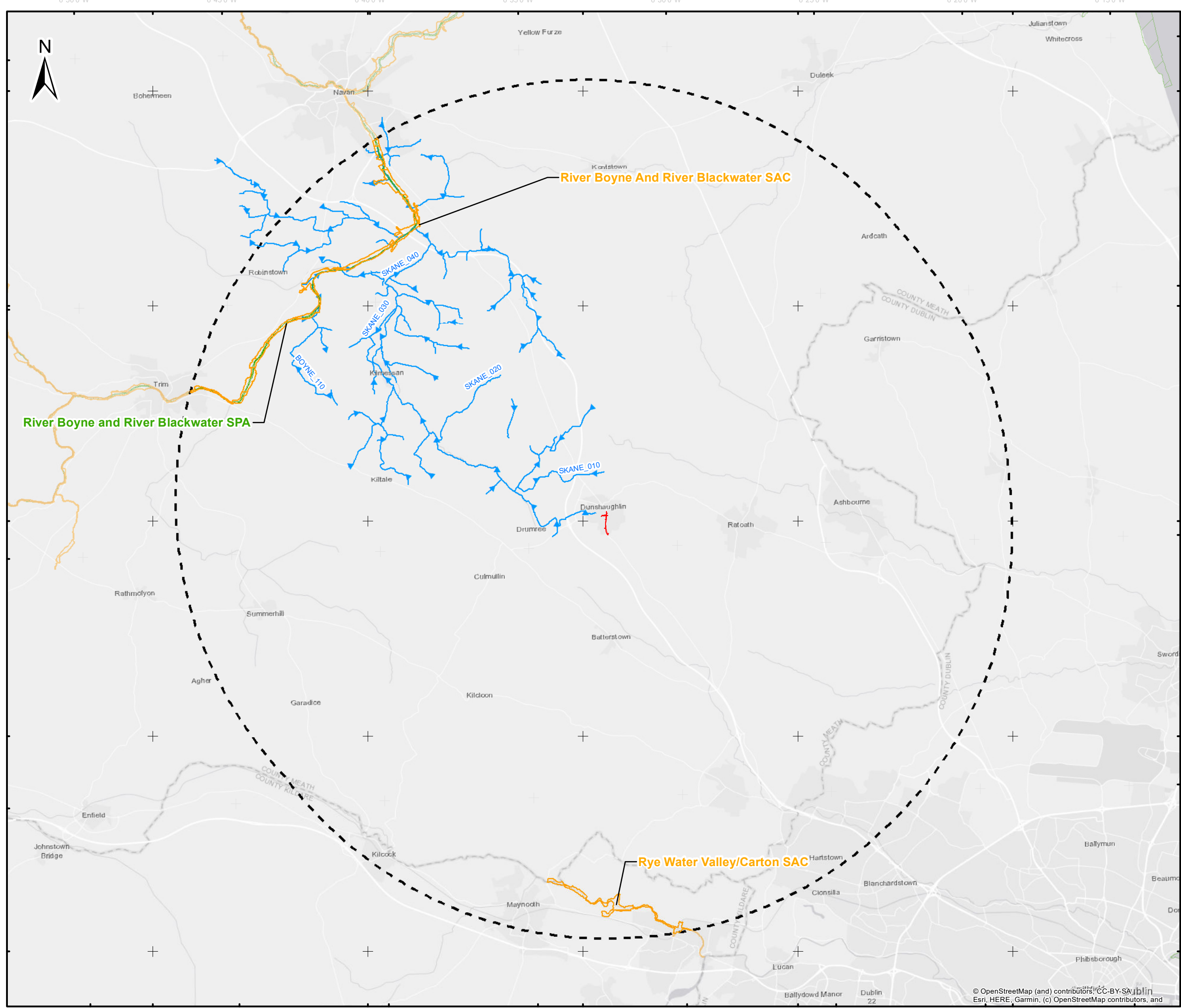
The Zol for noise/disturbance was therefore established as the proposed development site plus a 300m buffer.

6.4 IDENTIFICATION OF RELEVANT EUROPEAN SITES

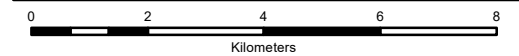
As mentioned above, the source-pathway-receptor conceptual model was used to identify a list of 'relevant' European sites (i.e. those which could be potentially affected). Three European sites (two SACs and one SPA) were identified within a 15km buffer, or have a hydrological connectivity with the proposed development. These sites are assessed in Table 6-1 and are illustrated on Figure 6-1.

¹⁴ Transport Infrastructure Ireland (2022). Environment. Available at: [Environment - \(tii.ie\)](https://www.tii.ie)

¹⁵ Cutts, N., Hemingway, K., Spencer, J., (2013). Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects.



- Legend**
- Site Boundary
 - Site Boundary - 15km Buffer
 - Special Areas of Conservation (SACs)
 - Special Protection Areas (SPAs)
 - WFD - River Water Bodies



- NOTES**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
 3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
 4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
D01	09/05/2023	Draft issue	S.P	S.O'R

Client: **comhairle chontae na mí**
meath county council

Project:
Dunshaughlin Public Realm Scheme

Title:
Figure 6-1: European Sites within 15km of the Proposed Development

Scale @ A3: 1:130,000

Prepared by: S.Pezzetta Checked by: S.O'Reilly Date: May 2023

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Map Ref: 11514-001-EU.S-BUF15-TOB-D01 Draft: **D01**

Table 6-1: European Sites within 15km of the Proposed Development and Assessment of Likely Significant Effects (* indicates a priority habitat under the Habitats Directive)

European Site	Qualifying Interests / Special Conservation Interests	Source-Pathway-Receptor Link	Possibility of Likely Significant Effects
River Boyne and River Blackwater SAC (002299) Distance ca. 14km west	<ul style="list-style-type: none"> Alkaline fens [7230] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] River Lamprey (<i>Lampetra fluviatilis</i>) [1099] Salmon (<i>Salmo salar</i>) [1106] Otter (<i>Lutra lutra</i>) [1355] 	<p>The SAC is located 14km west from the proposed development site.</p> <p>There is no hydrological connectivity between the proposed development site and this SAC.</p> <p>No source-pathway-receptor link exists between the proposed development site and the Qualifying Interests of this SAC.</p>	No potential for significant effects.
Rye water Valley/Carton SAC (001398) Distance ca. 13.5km south	<ul style="list-style-type: none"> [7220] Petrifying Springs* [1014] Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>) [1016] Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>) 	<p>The SAC is located 13.5km south from the proposed development site.</p> <p>There is no hydrological connectivity between the proposed development site and this SAC.</p> <p>No source-pathway-receptor link exists between the proposed development site and the Qualifying Interests of this SAC.</p>	No potential for significant effects.
River Boyne and River Blackwater SPA (004232) Distance ca. 14km west	<ul style="list-style-type: none"> Kingfisher (<i>Alcedo atthis</i>) [A229] 	<p>This SPA is located 14km west of the proposed development site and thus occurs beyond the ZoI of direct habitat impacts.</p> <p>There is no suitable habitat for the SCI species within the proposed development site.</p> <p>There is no hydrological connectivity between the proposed development site and this SPA.</p> <p>No source-pathway-receptor link exists between the proposed development site and the SCI species of this SPA.</p>	No potential for significant effects.

7.0 IDENTIFICATION OF LIKELY SIGNIFICANT EFFECTS

7.1 POTENTIAL FOR LIKELY SIGNIFICANT EFFECTS

Table 6-1 lists European sites within 15km of the proposed development or which are hydrologically connected to the proposed development site. A source-pathway-receptor link was not identified between the proposed development site and any of the three European sites listed, due to the proposed development sites' distance from European sites and the lack of any hydrological connectivity.

Therefore, there is no potential for likely significant effects on the conservation objectives of the qualifying interests/special conservation interests of any European site, as a result of the proposed development.

7.2 POTENTIAL FOR IN-COMBINATION EFFECTS

Article 6(3) of the Habitats Directive requires that:

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

It is therefore required that the potential impacts of the proposed development are considered in-combination with any other relevant plans or projects.

7.2.1 Projects

A search of the Meath County Council planning portal¹⁶ was undertaken to identify projects in the surrounding area to the proposed development. There were a number of projects identified within the vicinity of the proposed development. Most of the projects involved the construction of residential properties, extension of existing residential properties and upgrades to commercial properties. One planning application was found approximately 100m from the proposed development site (construction ongoing presently). This development consists of 20 residential developments.

Due to the small nature of these developments and lack of connectivity to any European sites, these projects have been deemed to have no potential for significant effects on any European sites and therefore there is no possibility for in-combination effects with the proposed development.

7.2.2 Plans

Meath County Development Plan 2021-2027

The Meath County Development Plan 2021-2027¹⁷ indicates that the proposed development is part of the Movement Strategy Plan. A key priority for this plan is the development of a

¹⁶ <https://www.eplanning.ie/MeathCC/searchtypes>

¹⁷ <https://consult.meath.ie/en/consultation/meath-adopted-county-development-plan>

sustainable transport system, promoting measures to increase the use of public transport, while also increasing the modal share for walking and cycling in towns and villages across the county.

Policy objectives for Meath County Movement Strategy includes preparing and commencing implementation of Local Transport Plans (LTP), in conjunction with the National Transport Authority (NTA) and relevant stakeholders, for Drogheda (in conjunction with Louth County Council as part of the Joint Urban Plan), Ashbourne, Navan, Ratoath, and other settlements where Local Area Plans are undertaken, having regard to the Area Based Transport Assessment Guidance Notes (2019).

It also seeks regular engagement between Transport Infrastructure Ireland (TII) and the relevant Municipal District regarding road safety issues communities located on Meath's national roads.

This plan will support the investment for both new and enhanced transport infrastructure to ensure economic growth and investment, the delivery of employment opportunities, reduced commuting times, more sustainable communities and enhanced quality of life through improved connectivity within and between the settlements.

Project Ireland 2040: National Development Plan (NDP)- (2021-2030)

As part of Project Ireland 2040 the revised National Development Plan sets out the Government's over-arching investment strategy and budget for the period 2021-2030. The plan identifies 10 National Strategic Outcomes which it aims to deliver. A number of these NSOs relate directly to this project. The plan identifies funding for Strengthened Rural Economies and Communities and prioritises regional and local roads.

Potential effects on European sites from the proposed development in-combination with the plans listed above were identified and assessed. Considering the environmental protection policies included within these plans, and that alone the proposed development will not significantly affect the integrity of any European sites, these plans pose no identifiable risk of resulting in likely significant effects on the integrity of any European sites in-combination with the proposed development.

8.0 SCREENING ASSESSMENT CONCLUSION

The screening assessment determined that, in view of best scientific knowledge and in the absence of mitigation measures, potential likely significant effects from the proposed development can be ruled out for all European sites. A Stage 2 (Appropriate Assessment) is therefore not required to assist the competent authority in undertaking an Appropriate Assessment of the potential for adverse effects of the proposed development, alone or in-combination with other plans and projects.

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