RATHMULLAN ROAD, OLDBRIDGE, DROGHEDA, CO. MEATH

Water Framework Directive Assessment

Earlsfort Developments Drogheda Limited

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occurrences and activities on and/or near the site may substantially alter encountered conditions.

LIST OF ABBREVIATIONS

Abbreviation	Definition
AEP	Annual Exceedance Probability
AFA	Area for Further Assessment
DEHLG	Department of Environment, Heritage and Local Government
DWPA	Drinking Water Protected Areas
GSI	Geological Survey Ireland
OPW	Office of Public Works
RBMP	River Basin Management Plan
TII	Transport Infrastructure Ireland
UE	Uisce Éireann
WAP	Water Action Plan
WFD	Water Framework Directive
WWTP	Wastewater Treatment Plant

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1 INTRODUCTION

DNV has been appointed by Earlsfort Developments Drogheda Limited (hereafter referred to as the Applicant) to complete a Water Framework Directive (WFD) Assessment for the proposed residential development at Rathmullan, Drogheda, Co. Meath (hereafter referred to as the 'Proposed Development' and 'site').

This report presents the findings of the WFD Assessment for the site and Proposed Development.

1.1 Project Objective

The overall objective of this WFD assessment is to determine if any specific components or activities associated with the Proposed Development will compromise WFD Article 4 objectives, cause a deterioration in the status of any surface water or groundwater body and/or jeopardise the attainment of good surface water or groundwater status. This assessment also aims to identify any waterbodies with the potential to be impacted, describe the proposed mitigation measures if required and define any residual potential impacts.

1.2 Project Scope of Work

The scope of this WFD assessment included the following tasks in line with WFD Common Implementation Strategy (CIS) Guidance:

- Screening for Potential Effects - Determine whether the Proposed Development could have any direct or indirect effect on the different quality elements relevant to the WFD.
- Scoping of Further Investigations - Outline the information required to determine the significance of any effect on the relevant quality elements.
- Data Collection and Assessment - Assess whether any effect could cause deterioration or compromise the status/potential status of a water body.

This assessment is reliant on the design information for the Proposed Development provided by the Applicant.

1.3 Professional Competency

The report was prepared by Nuria Manzanas a Principal Consultant of DNV. Nuria is a Chartered Geologist (PGeo) with the Institute of Geologists Ireland (IGI) with over 11 years' experience of preparing environmental and hydrogeological assessments for a range of project types and geological and hydrogeological site settings. The report was reviewed by Warren Vokes Ba MSc MCIWEM CWEM a Senior Consultant of DNV. Warren is a Chartered Water and Environmental Manager with over 9 years' experience of preparing environmental and hydrological assessments. The report was approved by Gareth Carroll BA BEng MIEnvSc CEnv, a Principal Consultant of DNV. Gareth is a Chartered Environmentalist (CEnv) with the Institute of Environmental Sciences (IES) with over 12 years' experience of preparing environmental and hydrogeological assessments for a range of project types and geological and hydrogeological site settings and accredited to undertake water framework directive assessments.

2 METHODOLOGY

2.1 Legislative Context

The EU Water Framework Directive (2000/60/EC), as amended by Directives 2008/105/EC, 2013/39/EU, and 2014/101/EU ("WFD"), was enacted to ensure the protection of the water environment. The Directive was transposed into Irish law by the European Communities (EU) (Water Policy) Regulations 2003 (S.I. No. 722 of 2003) with regard to the Common Implementation Strategy for the Water Framework Directive and the Floods Directive (EU Water Directors, 2016).

The WFD requires that all member states protect and improve water quality in all waters, with the aim of achieving good status by 2027 at the latest. It applies to all surface waters (defined as inland waters, both standing and flowing and includes rivers, lakes, reservoirs, streams and canals), groundwater, transitional (estuarine) and coastal waters. This includes both natural and "artificial and heavily modified bodies of water" ('artificial' is defined in Article 2(8) as 'a body of surface water created by human activity' and 'heavily modified' is defined in Article 2(9) as 'a body of surface water which as a result of physical alternations by human activity is substantially changed in character').

The WFD Article 4 objectives, which have been considered as part of the design process of the Proposed Development, include the following:

- Protect, enhance, and restore all bodies of surface water and groundwater with the aim of achieving good surface water status by 2027.
- Prevent deterioration and maintain a 'high' status where it already exists.
- Implement the necessary measures with the aim of progressively reducing pollution in surface waters and groundwater.
- Ensure waters in protected areas meet requirements.

2.1.1 National Policy

The WFD is implemented through the River Basin Management Plans (RBMP), which operates on a renewing six-year cycle of planning, action, and review. RBMPs set targets to address water quality issues, including the identification of river basin districts, water bodies, protected areas, and any pressures or risks, setting out monitoring requirements, and proposing environmental objectives. In Ireland, the first RBMP covered the period from 2009 to 2015, with the second cycle plan covering the period from 2018 to 2021.

The Water Action Plan 2024 (RBMP 3rd Cycle – 2022-2027) Programme of Measures outlines comprehensive measures to protect and improve water quality across various sectors. The Programme of Measures (PoM) for the RBMP is a set of actions designed to achieve the environmental objectives set out in the WFD. The PoM includes both broad measures applicable at a national scale and supplementary measures applicable to only specific catchments:

Key elements of the PoM include:

- Integrated Catchment Management: The PoM uses an integrated catchment management approach, focusing on identifying the right measures for specific locations to maximise effectiveness.

- Collaboration: Implementation involves collaboration between various government departments, local authorities, the EPA, and other stakeholders, with the Programme Delivery Office overseeing and coordinating efforts.
- Monitoring and Reporting: An enhanced monitoring and reporting programme tracks the implementation progress and assesses the effectiveness of the measures.
- Targeted Actions: The PoM identifies specific actions under each pressure/issue affecting water quality, assigning lead organisations, timelines, and key performance indicators.
- Multiple Benefits: The PoM aims to deliver multiple benefits for water, biodiversity, and climate change mitigation and adaptation.
- Environmental Assessment: All measures and projects arising during the third-cycle RBMP are subject to further environmental assessments, including Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA), as required.

The Water Action Plan 2024 provides numerous specific examples of measures within the PoM, categorised by the sector driving the impact:

- Agriculture: Implementation of a stronger and more targeted Nitrates Action Programme, including tighter controls on nutrient applications, a livestock excretion banding system, a national fertiliser sales database, and enhanced inspection and enforcement programmes.
- Hydromorphology: Developing a new Controlled Activities for the Protection of Waters regime to address pressures on the physical condition of waters.
- Forestry: Increasing the area of forests with appropriate water setbacks, seeking improvements to the licence applications process for key forestry activities, and rolling out schemes that promote water protection.
- Urban Wastewater: Continued investment in urban wastewater infrastructure and a review of water bodies where urban wastewater is a significant pressure.
- Peatlands: Updating the National Peatlands Strategy and continuing the national programme of peatland restoration.

These measures are designed to ensure that all new developments comply with the WFD's fundamental requirements and contribute to the overall goal of achieving good water status by 2027.

This assessment takes into account and meets all the requirements and objectives outlined above, ensuring compliance with the WFD.

2.1.2 Other Relevant Policy and Guidance

The methodology adopted for this assessment takes cognisance of other relevant standards and regulations pertinent to undertaking a WFD assessment in particular the following:

- Council Directive 2006/118/EC, 2006. On the protection of groundwater against pollution and deterioration. European Parliament and the Council of European Communities.
- Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.

- EU Water Framework Directive 2000/60/EC of the European Parliament and of the Council of 23rd October 2000 establishing a framework for Community action in the field of water policy with amendments.
- European Communities (Water Policy) Regulations 2003 (S.I. No. 722/2003);
- Environmental Protection Agency, December 2011. Guidance on the Authorisation of Discharges to Groundwater.
- Department of the Environment, Heritage and Local Government, Environmental Protection Agency and Geological Survey of Ireland, 1999. Groundwater Protection Schemes (Groundwater Protection Schemes, 1999);
- Local Government, July 1990. No. 21 of 1990. Local Government (Water Pollution) (Amendment) Act, 1990.
- S.I. No. 9/2010 - European Communities Environmental Objectives (Groundwater) Regulations 2010 and as amended; and,
- S.I. No. 272/2009 - European Communities Environmental Objectives (Surface Waters) Regulations 2009 and as amended.
- Environmental Protection Agency (EPA) (2022), Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EIAR).
- Inland Fisheries Ireland (IFI) (2016), Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Water.
- Transport Infrastructure Ireland (TII 2009) Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.
- DoEHLG (Nov 2009) The Planning System and Flood Risk Management – Guidelines for Planning Authorities.

2.2 Waterbody Characterisation

The following definition of a waterbody is presented in Article 2 of the WFD:

“Body of surface water' means a discrete and significant element of surface water such as a lake, a reservoir, a stream, river or canal, part of a stream, river or canal, a transitional water or a stretch of coastal water. This definition is transcribed in Part 1 of S.1. No. 272/2009 - European Communities Environmental Objectives (Surface Waters') Regulations 2009. Guidance on what constitutes a "discrete and significant element" is presented in the "Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance document No.2 identification of Water Bodies" (CIS No.2),

As noted in the CIS guidance document, "The Directive does not include a threshold for very small waterbodies". The WFD under Annex II sets out two systems for differentiating water bodies into typologies: System A and B System. The limited number of descriptors in System A was to aid cross comparison of waterbody typologies across the EU. However, in many regions of Europe the limited descriptors and parameters do not provide appropriate differentiation for Waterbodies. This was the case on the island of Ireland (ecoregion 17) where System B was adopted instead. System B has no predefined descriptor ranges but must allow for at least the same level of differentiation as System A and can consider additional descriptors to those required for System A.

As part of the implementation of the WFD in Ireland the EPA set out parameters for characterisation under System B. The EPA characterisation of waterbodies is described in the *Submission in accordance with Article 5 of Directive 2000/60/EC of the European Parliament*

and of the Council of 23rd October 2000 establishing a framework for Community action in the field of water policy, and in accordance with EC-DG Environment D.2 document 'Reporting Sheets for 2005 Reporting" dated 19th November 2004. (EPA, 2005).

It should be noted that WFD covers all waterbodies, but not every watercourse is monitored or classified by the EPA individually. Local 'non-characterised' water features are considered tributaries of the 'characterised' water bodies they connect to and are assessed as such here.

2.3 Water Framework Directive Classification

The information used in the classification of the status of our water bodies is collected in the national WFD monitoring programme.

2.3.1 Surface Water Assessment

Under the WFD, surface water bodies are defined as stated in section 2.1 above and below:

- Rivers;
- Lakes;
- Transitional waters;
- Coastal waters;
- Artificial surface water bodies; and,
- Heavily modified surface water bodies.

The overall status of surface waters is classified using information on the ecological status and chemical status which are outlined below.

2.3.1.1 Ecological Status

The ecological status of a surface water body is assessed based on the following categories, with each category receiving a rating of, “High,” “Good,” “Moderate,” “Poor” and “Bad” (EPA, 2025). Refer to Figure 2-1 below for a representation of the WFD classification of the waterbodies (Catchments.ie, 2025).

High status, which is considered to be the best status achievable or benchmark for a given water body, is the *‘reference condition’* defined as the biological, chemical, and morphological conditions associated with no or very low human pressure.

The ecological status of a surface water body is assessed according to:

- Biological quality (i.e., the condition of biological elements (aquatic flora and fauna));
- Physico-chemical quality (temperature, oxygenation, nutrient conditions) and,
- Hydromorphological quality (waterflow (i.e., flow and tidal conditions), sediment composition and movement, riverbank structure, etc).

The overall ecological status of a surface water body is based on the lowest of the three individual categories, which means that the condition of a single quality element (i.e., biological, physico-chemical and hydromorphological) can cause a water body to fail to reach its WFD classification objectives.

In the case of artificial and heavily modified waters, ecological potential status is assessed similarly to ecological status above but is rated as “Maximum,” “Good,” “Moderate,” “Poor” or “Bad” ecological potential instead. In general terms, ‘maximum ecological potential’ means that the water body is as close as possible to a comparable surface water body, with the only differences being those directly attributed to the artificial or modified nature of the water body.

2.3.1.2 Chemical Status

Chemical status (level of harmful chemicals in the water) is recorded by one of two ratings, 'Good' or 'Fail.' It is assessed by compliance with Environmental Quality Standards (EQS) for chemicals that are listed in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 S.I. No. 272/2009 (as amended). This involves making sure that no changes take place that would worsen the current condition of any waterbody and that a proposed development does not prevent the achievement of the future status objectives of any waterbody.

The chemical status classification for the waterbody is determined by the lowest scoring chemical reported in the waterbody.

For an Artificial or Heavily Modified Water Body hydromorphologically which has been altered for anthropogenic purposes (i.e., water supply, flood protection or navigation), the objective is to achieve a Good Ecological Potential (GEP) for those waterbodies. This means that the ecology must be as close as possible to that of a similar natural water body, without compromising the specified human use for which the waterbody is designated.

2.3.2 Groundwater Assessment

Groundwater is awarded either "Good" or "Poor" status. Groundwater is assessed based on its chemical and quantitative status.

2.3.2.1 Chemical Status

Good chemical status of a groundwater body requires the entry of hazardous substances and saline intrusion into the groundwater to be prevented, and the presence of other pollutants to be below the limits within S.I. No. 9/2010 - European Communities Environmental Objectives (Groundwater) Regulations 2010 (as amended). Concentrations of pollutants must also not be of such a concentration as to affect the ecological or chemical status of associated surface waters or to damage linked terrestrial ecosystems.

2.3.2.2 Quantitative status

Quantitative status (i.e., the amount of water present) is assessed based on whether or not the available groundwater resource is being reduced by the long-term rate of annual abstraction.

Refer to Figure 2-1 below for a representation of the WFD classification of the waterbodies.

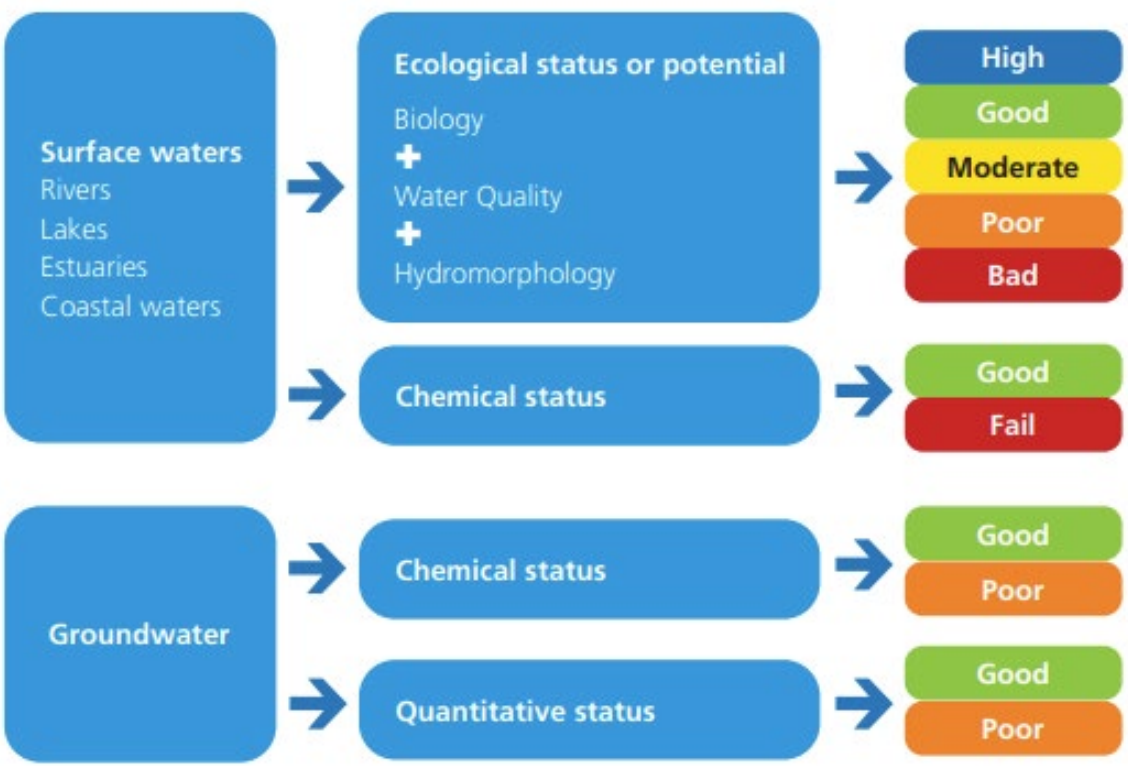

Figure 2-1: WFD Classification (source: EPA, 2025 – www.catchments.ie)

2.4 Approach to WFD Assessment

In order to assist in the implementation of the WFD, EU member states, alongside Norway and the European Commission, developed a Common Implementation Strategy (CIS) in May 2001. This CIS was designed to provide coherent and comprehensible guidelines aimed at achieving the aims of WFD.

CIS Guidance Document 36 provides an outline of an approach to WFD Assessments which breaks the assessment down into the following sequential steps:

- Screening for Potential Effects - Determine whether the Proposed Development could have any direct or indirect effect on the different quality elements relevant to the WFD.
- Scoping of Further Investigations - Outline the information required to determine the significance of any effect on the relevant quality elements.
- Data Collection and Assessment - Assess whether any effect could cause deterioration or compromise the status/potential status of a water body.

If a proposed development is determined to compromise or deteriorate the status/potential status of a waterbody then an “Article 4(7) Test” is required. The Proposed Development can only be authorised if the conditions as outlined under Article 4(7) a) to d) are fulfilled. The applicant must provide detailed evidence to meet these four stringent tests:

- (a): All practical steps are taken to mitigate the adverse impacts on the water body.
- (b): The reasons for modifications or alterations are documented in the RBMP.
- (c)(1): There is an overriding public interest in the Development or
- (c)(2): The benefits outweigh those of the WFD objectives, particularly regarding human health, safety, or sustainable development.

- (d): The project's benefits cannot be achieved by a significantly better environmental option that is technically feasible and not disproportionately costly.

The Proposed Development must not permanently exclude or compromise the WFD objectives in other water bodies within the same RBD and must comply with other environmental legislation (Article 4(8)). Additionally, new provisions must guarantee at least the same level of protection as existing legislation (Article 4(9)). Additional guidance relating to Article 4(7) derogations is provided in the Common Implementation Strategy Document No.36 (EU Water Directors, 2017).

If the conditions are not fulfilled the Proposed Development cannot be authorised according to the WFD. If no impacts are identified, then no Article 4(7) assessment is required and authorisation may be permitted according to the WFD.

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Applicant intends to apply for permission for a Large-Scale Residential Development (LRD) on a site of approximately 9.20 hectares (Ha).

The Proposed Development comprises the following:

(i) demolition/removal of all existing farm buildings/structures, and associated hard standing on site;

(ii) construction of a large-scale residential development (LRD) of 249 no. units comprising 170 no. two-storey houses (including 37 no. two-bedroom houses, 111 no. three-bedroom houses and 22 no. four-bedroom houses), 16 no. three-storey duplex buildings (accommodating 16 no. one-bedroom and 16 no. two-bedroom units) and a mix of 8 no. three-storey and 3 no. four-storey apartments blocks accommodating a total of 22 no. one-bedroom and 25 no. two-bedroom apartments);

(iii) construction of a new vehicular entrance and access road off Rathmullan Road with associated junction works and associated internal access road network with pedestrian and cyclist infrastructure;

(iv) provision of a three-storey creche facility (411sq.m) with external play areas at ground and second floors and vehicular/bicycle parking area; and,

(v) all ancillary site and infrastructural works, inclusive of removal of existing vehicular entrances, general landscaping and public open space provision, vehicular parking provision (396 no. spaces in total), bicycle parking, boundary treatments, foul/surface water drainage, attenuation areas, provision of pumping station and provision of an ESB substation, as necessary to facilitate the Proposed Development. Each house will be served by vehicular parking to the front and private amenity space in the form of a rear garden. Each duplex building will be served by vehicular parking to the front and private amenity space in the form of balcony/terrace spaces to the rear. Each apartment block will have shared access to adjoining car parking bays with communal amenity space and bicycle/bin stores provided to the rear and each apartment will be provided with private amenity space in the form of a balcony or terrace. The development includes provision of a landscaped area of public open space to the north of the site, with 2 no. pedestrian/cyclist connections (via the northern/eastern site boundaries) to Rathmullan Road which will be subsequently ceded to Meath County Council.

3.1 Construction Phase

The construction phase of the Proposed Development will include:

- Removal of topsoil and stockpiled onsite for reuse on completion of the works.
    - The stripping of topsoil will be undertaken on a phased basis so that no area is stripped until such time as works are imminent in that area.
    - Topsoil disturbed during the construction phase will be reused as much as practicable.
    - The surplus excavated topsoil will be removed to a licenced facility.
- Excavation of subsoil will be required to allow the construction of roads, building foundations, drainage, and ancillary services. The maximum excavation depths will be 4.645m, located at the site entrance. This is for drainage in a road area to be cut in at site access.

  - Based on the cut and fill analysis, the volume of cut (i.e., excavated material) is approximately 37,524.04m^3 and the volume of fill is approximately 12,437.84m^3 (refer to Drawing No. RAT-WMX-PH2-00-DR-C-P500 - Cut & Fill Analysis-Sub Base Level submitted with the planning application under separate cover). It is estimated that approximately 25,086.20m^3 of this soil material will be stockpiled temporarily before being removed from site.
  - It is estimated that approximately 6,534.31m^3 of additional soil and subsoil material will be excavated and removed offsite for the construction of the underground attenuation tanks and foul pumping station.
  - It is anticipated that there will be no requirement for the excavation of bedrock during the construction stage of the Proposed Development.
  - Excavated soil and subsoil materials will be reused for engineering fill and landscaping where possible.
- Demolition of the existing farm buildings located within the southeastern boundary of the site. Asbestos was reported in a number of locations across the buildings.
- Building foundations will consist of a traditional reinforced concrete foundation founded in 100 kPa allowable bearing pressure stratum. The stratum is to be stiff natural ground. Where this stratum is deep, a lean mixed trench will be constructed below the foundations to effectively found in the required stratum. There will be no requirement for piled foundations.
- There will be large quantities of materials brought to the site to facilitate construction such as concrete, concrete blocks, timber, reinforcement, pipework, insulation, fixings, plasterboard, etc.
- Aggregate materials imported to the site (i.e., natural stones and gravel, aggregates, and related fill products) will be sourced from locally available quarries in accordance with the appropriate statutory guidelines.
- Groundwater was not encountered during site investigations which extended to a maximum depth of 8.5mbGL (WM, 2025b). Therefore, it is anticipated that excavations for the construction of the Proposed Development will be above groundwater with no requirement for dewatering. However, there may be a requirement for management of surface water (rainwater) within excavations during groundworks.
- Construction of new surface water drainage designed in accordance with the principles and objectives of Sustainable Drainage Systems (SuDS) and the Greater Dublin Sustainable Drainage System (GDSDS) and the requirements of MCC.
- Construction of new foul and mains water connections in accordance with UE Code of Practice for Wastewater Infrastructure 2020 & Standard Details for Wastewater Infrastructure (IW-CDS-5030-03) and UE's Code of Practice for Water Infrastructure (IW-CDS-5020-03).

3.2 Operational Phase

3.2.1.1 Surface Water Drainage

Surface water runoff from the Proposed Development will be managed in a surface water drainage system designed in accordance with the principles and objectives of:

- Sustainable Drainage Systems (SuDS).
- Meath County Development Plan 2021-2027.

- Greater Dublin Sustainable Drainage Scheme (GDSDS).

As documented in the Engineering Assessment Report (WM, 2025a), it is proposed that the surface water from the Proposed Development will drain via gravity and discharge at a restricted rate into the existing 1200mm culvert adjacent to Rathmullan Road at the northeast of the site. This culvert merges into a ditch on the opposite side of the existing road approximately 120m to the north of the proposed outfall location. The ditch travels northwards for approximately 60m before outfalling into the Boyne Estuary, which is tidal at this location.

The surface water network for the Proposed Development has been divided into two (2 No.) separate catchments, the Northern Catchment and Southern Catchment. These catchments operate in series with runoff from the Southern Catchment flowing into the downstream Northern Catchment area at a restricted rate, equivalent to the existing 1200mm culvert adjacent to Rathmullan Road at the northeast of the site. Excess stormwater will be attenuated and will be restricted via hydrobrakes or similar approved.

- Southern Catchment: It covers a catchment area of approximately 3.019 hectares.
    - The total impermeable area is approximately 1.589 hectares.
    - The attenuation storage will accommodate the Qbar runoff rate of 10.70 l/s and will be restricted via the hydrobrake manhole with excess runoff stored in an attenuation system located on the central open space.
    - This catchment will outfall into an attenuation system, with an underground attenuation storage capable of accommodating up to 1 in 30 return years (i.e., volume of approximately 896m^3). The excess surface water for the 1 in 100 year storm will be attenuated in the overground detention basin that has a volume of 214.40m^3. The storage required is calculated to be approximately 1057.54m^3. However, the total surface water storage provided within the proposed attenuation system is approximately 1,110.4m^3.
    - This catchment outfalls to the downstream Northern Catchment.
- Northern Catchment: It covers a catchment area of approximately 3.167 hectares
    - The total impermeable area is approximately 1.971 hectares.
    - The attenuation storage will accommodate the Qbar runoff rate of 11.23 l/s and will be restricted via the hydrobrake manhole with excess runoff stored in the aboveground grass detention basin system.
    - This catchment outfalls to the existing 1200 mm culvert on Rathmullan Road at a restricted rate of 21.93 l/s (total from the Southern and Northern Catchments).
    - The flow from the Southern Catchment and the Northern Catchment will outfall into an attenuation system with an underground attenuation storage whose capacity will hold up to a return year of 1 in 30 years (i.e., volume of 1,000m^3). The excess surface water for the 1 in 100 year storm will be attenuated in the overground detention basin (i.e., volume of 311.35m^3) that will be split into 2 parts that will be interconnected.
    - The total surface water storage within the proposed attenuation system is approximately 1,311.35m^3. However, the storage required is calculated to be approximately 1,300m^3 (1 in 100 years storm events).
    - This catchment outfalls to the downstream Northern Catchment to the North direction.

The total capacity of the attenuation storage for both catchments is 2,368.89m^3, based on the 100-year storm event with 20% climate change. Both underground attenuation storages are designed to cater the 1 in 30 year storm events to ensure the above ground grass detention basin is dry throughout the year. Once the 1 in 30 year is exceeded, the above ground detention basin will be filled up slowly and dissipate over time.

A SUDS treatment approach has been implemented in accordance with the CIRIA SuDS Manual C753, as required by the GDSDS, to alleviate the detrimental effects of traditional urban storm water drainage practice (i.e., piping runoff of rainfall from developments to the nearest receiving watercourse).

The SuDS elements, which take account of quantity, quality and amenity issues to manage surface water runoff, are summarised as follows:

- Water Butts - utilised within each residential unit for external gardening and wash down use only, which will ensure interception of roof runoff at source.
- Permeable Pavement - allows stormwater runoff to filter through voids in the pavement surface into an underlying stone reservoir, where it is temporarily stored or infiltrated.
- Swales - an infiltration trench is incorporated at the invert of the swales which will encourage surface water to drain directly to ground. Excess water will drain to the surface water network.
- Grass Detention Basin – above ground features located at the green open space areas utilised to restrict the outflow to the greenfield runoff rate.
- Flow control device (e.g. hydrobrake or similar device) – installed at the outfall manhole of each catchment to reduce the flow rate to that of a greenfield site.
- Petrol Interceptor – installed downstream of each flow control device manhole prior to each outfall into the attenuation to ensure primary treatment of any pollutants present.

As documented in the Engineering Assessment Report (WM, 2025a),*'the management train commences with source control through the provision of filter drains. The second stage of the management train, site control, is provided by the introduction of swales, all of which provide a degree of treatment before discharging to the detention basin. The rate of runoff is controlled through the provision of a hydro-brake. The detention basin offers a third stage of treatment, regional control, by slowing the storm water discharge down and removes any additional silt which may remain in the storm water* '.

Surface water drains will be 150mm to 225mm and generally will consist of PVC (to IS 123) or concrete socket and spigot pipes (to IS 6). These drains will be laid to comply with the Requirements of the Building Regulations 2010, and in accordance with the recommendations contained in Section H of the Technical Guidance Documents. In addition, surface water public sewers will be 225 mm to 525 mm and will consist of PVC or concrete socket and spigot pipes (to IS 6) and will be laid strictly in accordance with the requirements of MCC (WM, 2025a).

The layout of the proposed surface water drainage network is presented in WM Drawing No. 18-014-P451 and P452 - Proposed Drainage Layout submitted with the planning application under separate cover. The surface water area catchments are presented in Figure 3-1 and WM Drawing No. P459 also submitted with the planning application under separate cover.

Figure 3-1. Surface Water Catchment Areas (WM, 2025a)

3.2.1.2 Foul Drainage

As documented in the Engineering Assessment Report (WM, 2025a), submitted with the planning application under separate cover, the foul drainage from the site will drain via a network of gravity sewers to a proposed pumping station located at the low point in the northeastern corner of the site. Foul water will be pumped from the proposed pumping station and will outfall to the existing foul water drainage network at the junction of Rathmullan Road and Marley's Lane.

A Confirmation of Feasibility (COF) was issued by UE on the 1st of April 2025 (UE COF Reference: CDS24009836). The UE COF confirms the connection is feasible, subject to upgrades. To address the requirements of the UE COF, a proposed new pumping station will replace the adjacent existing old pumping station and will facilitate flows from the adjacent Riverbank and Oldbridge Manor Developments. The Applicant will fund all upgrade works and will ensure that all works are completed in agreement with and to the satisfaction of UE prior to connection.

Foul water sewers within the Proposed Development will be laid to comply with the requirements of the Building Regulations, and in accordance with the recommendations contained in Section H of the Technical Guidance Documents.

In accordance with the Irish Water "Code of Practice for Wastewater Supply", the proposed foul outfall from the site is a 225 mm-diameter pipe laid at a gradient of 1:200, giving a capacity of 32 l/s and therefore has adequate capacity to cater for the flows from the development (WM, 2025a).

The proposed pumping station will be designed in compliance with the Irish Water Code of Practice and Irish Water Standard Details and has provision to cater for foul water storage from the Proposed Development with a total capacity of 261m^3. The pumping station is located with a 20m separation distance from the proposed nearest dwelling. This complies with Section 5.5 of the UE "Code of Practice for Wastewater Supply", which states that a Type 3 pumping stations require a minimum buffer zone of 15m. A control kiosk will be provided adjacent to the pumping station.

The layout of the proposed foul water drainage network is presented in WM Drawing No. 18-014-P451 and P452 - Proposed Drainage Layout submitted with the planning application under separate cover.

Foul water from the Proposed Development will be treated in the Drogheda WWTP (Discharge Licence No. D0041) before ultimately discharging to the Boyne Estuary transitional waterbody (EU Code: IE_EA_010_0100).

3.2.1.3 Water Supply

As documented in the Engineering Services Report (WM, 2025a), submitted with the planning application under separate cover, a new proposed connection will be made to the existing 150mm diameter HPPE watermain located on Rathmullan Road to the east of the site. It is noted that the 150mm diameter HPPE watermain will be upgraded to 200mm diameter as part of the Proposed Development.

A Confirmation of Feasibility (COF) was issued by UE on the 1st of April 2025 (UE COF Reference: CDS24009836). The UE COF confirms the connection is feasible, subject to upgrades including replacing approximately 140m of existing 150mm diameter HPPE watermain with a 200mm diameter watermain and the provision of approximately 50m of new 450mm ID watermain and a Flow Control Valve. All upgrade works will be carried out by UE and funded by the Applicant as part of the connection agreement.

All water supply details will be in accordance with UE's Code of Practice for Water Infrastructure (IW-CDS-5020-03).

The layout of the proposed water supply is presented in WM Drawing No. 18-014-P481 and P482 - Water Supply Layout submitted with the planning application under separate cover.

4 STUDY AREA SCREENING

The WFD screening assessment was based on the information presented on the EPA mapping website and the specific quality status of the nearby waterbodies (i.e., groundwater, surface water, transitional waterbodies, etc.) was gathered from the information presented on the catchments.ie website.

4.1 Surface Water

The Proposed Development site lies within the Boyne Catchment (Hydrometric Area 07) and Boyne_SC_130 sub-catchment (ID 07_17) (EPA, 2025). The site has been mapped by the EPA (EPA, 2025) to be within the Stagrennan_010 WFD River Sub-basin (IE_EA_07S320550).

The closest surface water feature recorded on the EPA database (EPA, 2025) to the site is the Sheephouse 07 River (WFD Name: Stagrennan_010; River Waterbody Code: IE_EA_07S320550) which crosses a small area of the southeastern boundary of the site along Rathmullan Road. The Sheephouse 07 River flows north before discharging into the Boyne Estuary approximately 33m north of the site at its closest point. As documented in the SSFRA (JBA, 2025), prior to the construction of the M1 motorway, this ditch formed the lower reach of a watercourse originating to the southwest of the site. However, significant cutting required to accommodate the M1 has disconnected the lower section from its catchment upstream of the M1 motorway. Flows from the upper catchment of the former watercourse are now incorporated into the surface water drainage network of the M1 and do not continue to flow into the disused ditch, which is no longer considered to be a functional fluvial watercourse (JBA, 2025). The ditch is culverted along the eastern perimeter of the site and conveys local drainage flows in the surrounding area including lands upstream of the site to the east of the M1 motorway. This culvert outfalls to a ditch on the opposite side of the Rathmullan Road approximately 120m to the north of the proposed outfall location. The ditch travels northwards for approximately 60m before outfalling into the Boyne Estuary, which is tidal at this location.

Other surface water features within the vicinity of the site and Proposed Development are summarised as follows:

- The Mell River (WFD Name: Tullyeskar_010; River Waterbody Code: IE_EA_07T270880) is located approximately 128m north of the site, which runs in a southerly direction before discharging into the Boyne Estuary.
- The Rathmullan River (WFD Name: Tullyeskar_010; River Waterbody Code: IE_EA_07T270880) is located approximately 124m north of the site, which runs in a southerly direction before discharging into the Boyne Estuary.
- The Boyne Estuary Transitional Waterbody (WFD Name: Boyne Estuary; Transitional Waterbody Code: IE_EA_010_0100) is adjacent to the northern boundary of the site and it is fed by multiple rivers downstream of the site (i.e., >2km downstream of the site). This waterbody runs in an easterly direction before discharging into the Boyne Estuary Plume Zone Coastal Waterbody (Coastal Waterbody Code: IE_EA_010_0000) approximately 9.1km east of the site.

The following Coastal Waterbodies are indirectly connected to the site due to the connection to the Boyne Estuary Plume Zone Coastal Waterbody:

- Louth Coast (HA 06) (Coastal Waterbody Code: IE_NB_025_0000) – upstream of the Boyne Estuary Plume Zone Coastal Waterbody.
- Northwestern Irish Sea (HA 08) (Coastal Waterbody Code: IE_EA_020_0000) - downstream of the Boyne Estuary Plume Zone Coastal Waterbody.

The surface water features mapped by the EPA (EPA, 2025) within a 2km radius of the site are presented in Figure 4-1.

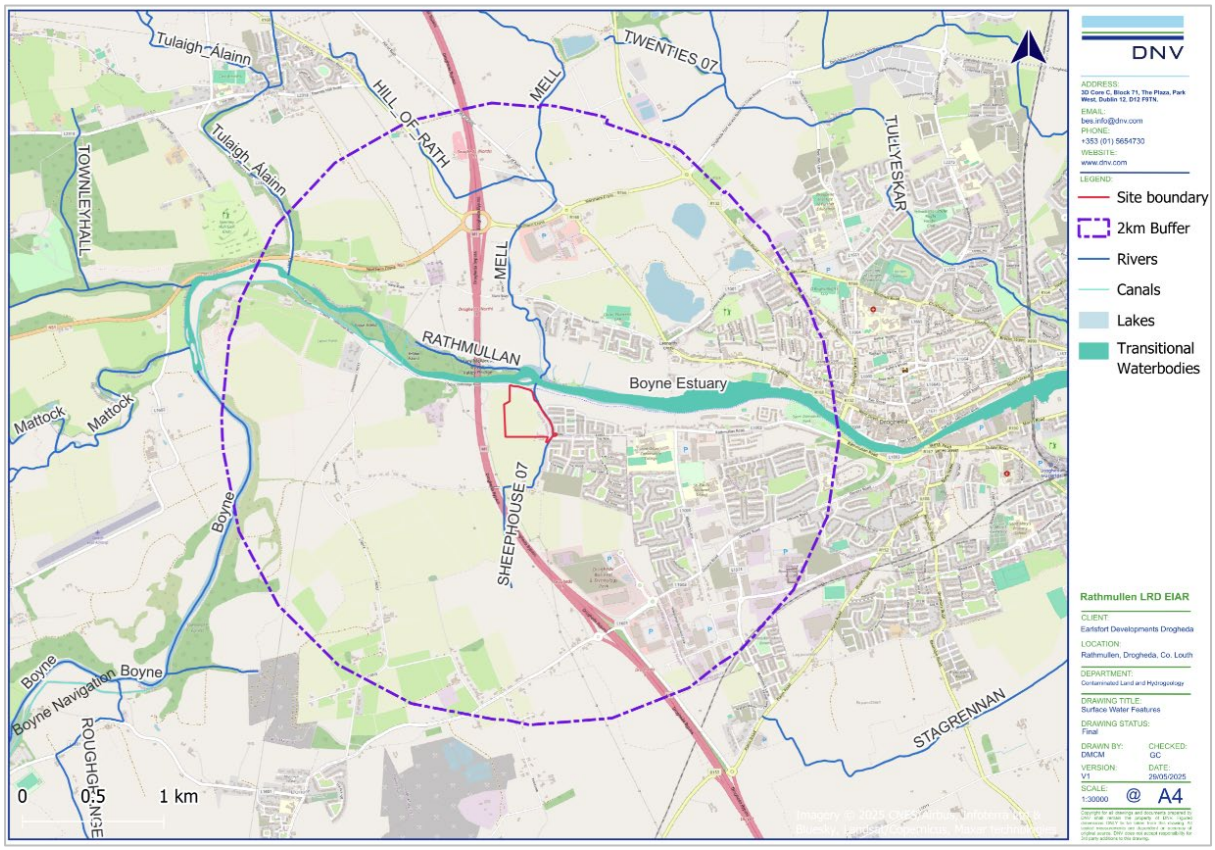

Figure 4-1: Surface Waterbodies within 2km of the Proposed Development

Table 4-1: WFD Status of Surface Waterbodies Potentially Hydraulically Connected to the Site

Name (WFD)	EPA Code	Waterbody Type	WFD Status (2016 – 2021)			WFD Risk Status
			Ecological	Chemical	Hydro-morphological	
Stagrennan_010	IE_EA_07S320550	River	Moderate (Note - Low Confidence)	-	-	Review
Tullyeskar_010	IE_EA_07T270880	River	Moderate (Note - Low Confidence)	-	-	Review
Boyne Estuary Transitional Waterbody	IE_EA_010_0100	Transitional Waterbody	Moderate (Note - High Confidence)	Failing to Achieve Good	-	At Risk
Boyne Estuary Plume Zone Coastal Waterbody	IE_EA_010_0000	Coastal Waterbody	Moderate (Note - High Confidence)	-	-	At Risk
Louth Coast (HA 06)	IE_NB_025_0000	Coastal Waterbody	High (Note – Medium Confidence)*	-	-	Not at Risk
Northwestern Irish Sea (HA 08)	IE_EA_020_0000	Coastal Waterbody	Good (Note – High Confidence)	-	-	At Risk

Note - * The protection and restoration of these high-status water bodies is a priority under Ireland's River Basin Management Plan (RBMP).

4.2 Groundwater

The bedrock aquifer beneath the site is within the Drogheda Groundwater Body (GWB) (EU Code: IE_EA_G_025), refer to Hydrogeological Risk Assessment (HRA) included in Appendix 7.1.

Figure 4-2 below shows the groundwater bodies within 2km of the site and the quality status (i.e., chemical and quantitative) and risks within the groundwater bodies identified within the study area are presented in Table 4-2 below.

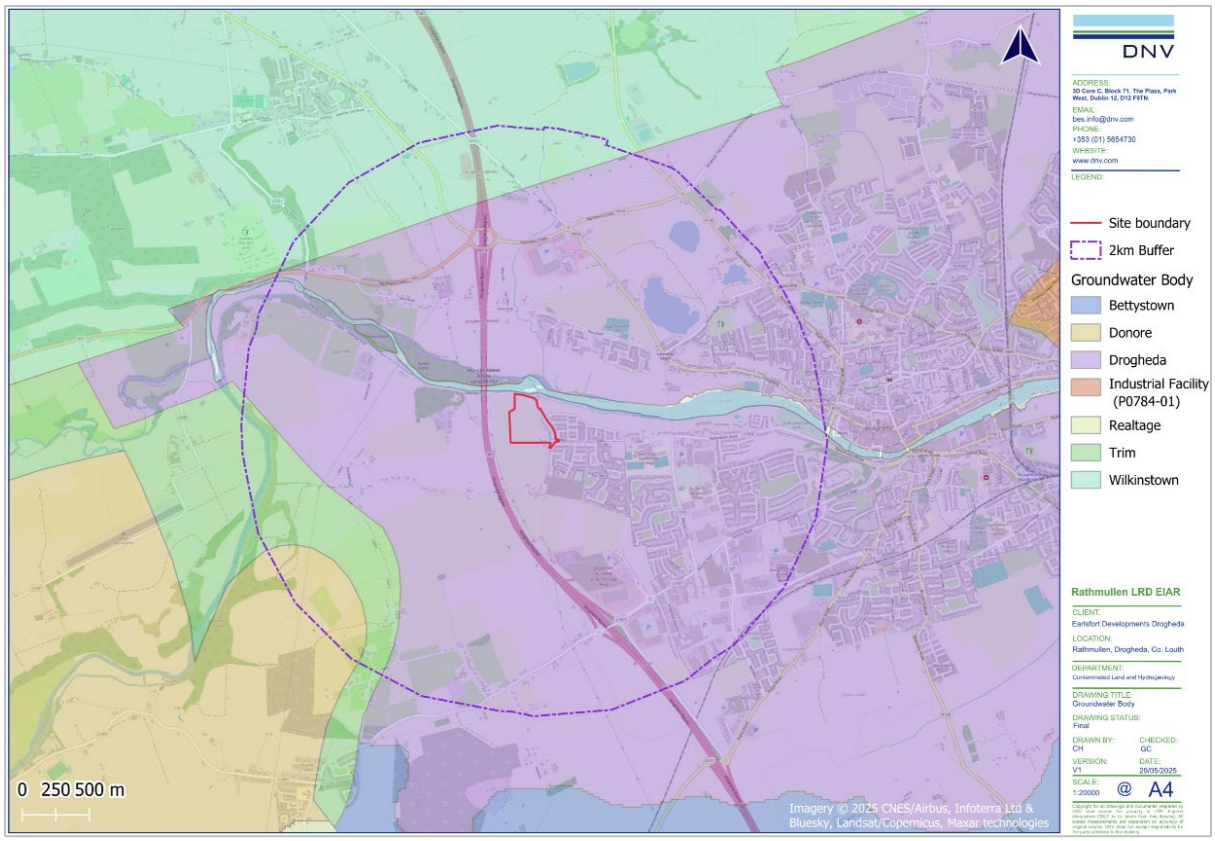

Figure 4-2: Groundwater Bodies within 2km of the Proposed Development

Table 4-2: WFD Status of Groundwater Waterbodies within 2km of the Site

Name	EPA Code	Type	WFD Status (2016-2021)		WFD Risk Status
			Chemical	Quantitative	
Drogheda GWB	IE_EA_G_025	Regionally Important Aquifer - Karstified (diffuse) - Rkd	Good	Good	At Risk
Wilkinstown GWB	IE_EA_G_010	Poorly productive bedrock	Poor	Good	At Risk
Trim GWB	IE_EA_G_002	Productive fissured bedrock	Good	Good	At Risk
Donore GWB	IE_EA_G_021	Poorly productive bedrock	Good	Good	Not at Risk

Although the Proposed Development does not include groundwater abstraction (refer to the HRA Appendix 7.1), the vulnerability of the groundwater will increase due to the excavation of soils and subsoils during the construction phase. As such, mitigation measures will be required

during site activities to limit potential releases to groundwater during the construction phase of the Proposed Development. Refer to Section 5.2 for the GWBs screened in/out as part of the Proposed Development.

4.3 Flood Risk Assessment

A site-specific flood risk assessment (SSFRA) was prepared for the site and Proposed Development by JBA Consulting (JBA, 2025). It assessed the potential flood risk associated with fluvial, groundwater, coastal and pluvial flooding.

The primary source of flood risk to the site was fluvial flooding as represented in the Eastern CFRAM Study. However, following the site visit undertaken by JBA Consulting on 5th August 2025, it was confirmed that the upper catchment of the Sheephouse_07 Stream has been disconnected from its lower catchment by the construction of the M1 Motorway, observed by the presence of piped culverts diverting surface water flows into the M1 surface water drainage network . The culverted system then flows parallel to the road surface and discharges directly into the River Boyne. The lower reach of the Sheephouse_07 Stream now exists as a dry ditch and no longer serves as a functional watercourse. In addition, it does not appear to have any active hydraulic connectivity with lands to the south of the site. Therefore, the Eastern CFRAMs mapping does not accurately represent the current conditions of the site and associated fluvial flood risk. '*Upon detailed review of all available fluvial flood information and surface water drainage construction drawings of the M1 Motorway, it is determined within this report that fluvial flood risk from the former Sheephouse watercourse is no longer present, as there is no watercourse remaining which could be the source of flooding to the site'* (JBA Consulting, 2025).

The report (JBA Consulting, 2025) concludes the following:

'A portion of the site is currently incorrectly classified as Flood Zone A/B, due to the outdated catchment conditions represented within the Eastern CFRAMs flood modelling and mapping.'

'Due to the outdated catchment conditions represented within the Eastern CFRAMs flood modelling and mapping incorrectly identifying fluvial flood risk to the site, it is the finding of this site-specific flood risk assessment that the Flood Zones for the site are not appropriate and the entire site should be redefined as Flood Zone C. The Planning System and Flood Risk Management Guidelines for Planning Authorities, classes residential development as a highly vulnerable land use and is therefore appropriate for development only within Flood Zone C without the need to provide a Justification Test. This FRA confirms the proposed development footprint within the subject site as being located wholly within Flood Zone C and is therefore appropriate for residential development.'

Although the Proposed Development footprint is located within Flood Zone C, mitigation measures have been considered and included, where necessary, to mitigate the risk of pluvial flooding to and from the site (JBA Consulting, 2025).

4.4 Register of Protected Areas

The WFD Register of Protected Areas is a comprehensive list of areas designated under the Water Framework Directive (WFD) that require special protection due to their environmental significance. These areas include:

I. Drinking Water Protected Areas: Areas designated for the abstraction of water intended for human consumption.

II. Areas for the Protection of Economically Significant Aquatic Species: Such as shellfish waters.

III. Recreational Waters: Including bathing waters.

IV. Nutrient-Sensitive Areas: Such as nitrate vulnerable zones.

V. Areas for the Protection of Habitats and Species: Including those designated under the Habitats Directive and Birds Directive.

The register helps ensure that these areas are managed and their integrity protected to meet the Article No.4 objectives set out in the WFD.

4.4.1 Nature Conservation

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs). SACs and SPAs are collectively known as Natura 2000 or European sites (referred to hereafter as Natura 2000 sites).

National Heritage Areas (NHAs) are designations under the Wildlife Acts to protect habitats, species, or geology of national importance. The boundaries of many of the NHAs in Ireland overlap with SAC and/or SPA sites. Although many NHA designations are not yet fully in force under this legislation (referred to as ‘proposed NHAs’ or pNHAs), they are offered protection in the meantime under planning policy which normally requires that planning authorities give recognition to their ecological value.

As documented in the HRA (DNV, 2025a) included in the EIAR Volume 3: Appendix 7.1, there are four Natura 2000 sites that are identified with a potential hydraulic connection to the site and Proposed Development. There are also two pNHAs identified with a potential hydraulic connection to the site and the Proposed Development.

- River Boyne and River Blackwater SAC
- Boyne Coast and Estuary SAC
- Boyne Estuary SPA
- North-West Irish Sea SPA
- Boyne River Islands pNHA
- Boyne Coast and Estuary pNHA

The Natura 2000 sites and other protected and designated sites or areas with a potential hydraulic connection to the site are presented in Figure 4-3.

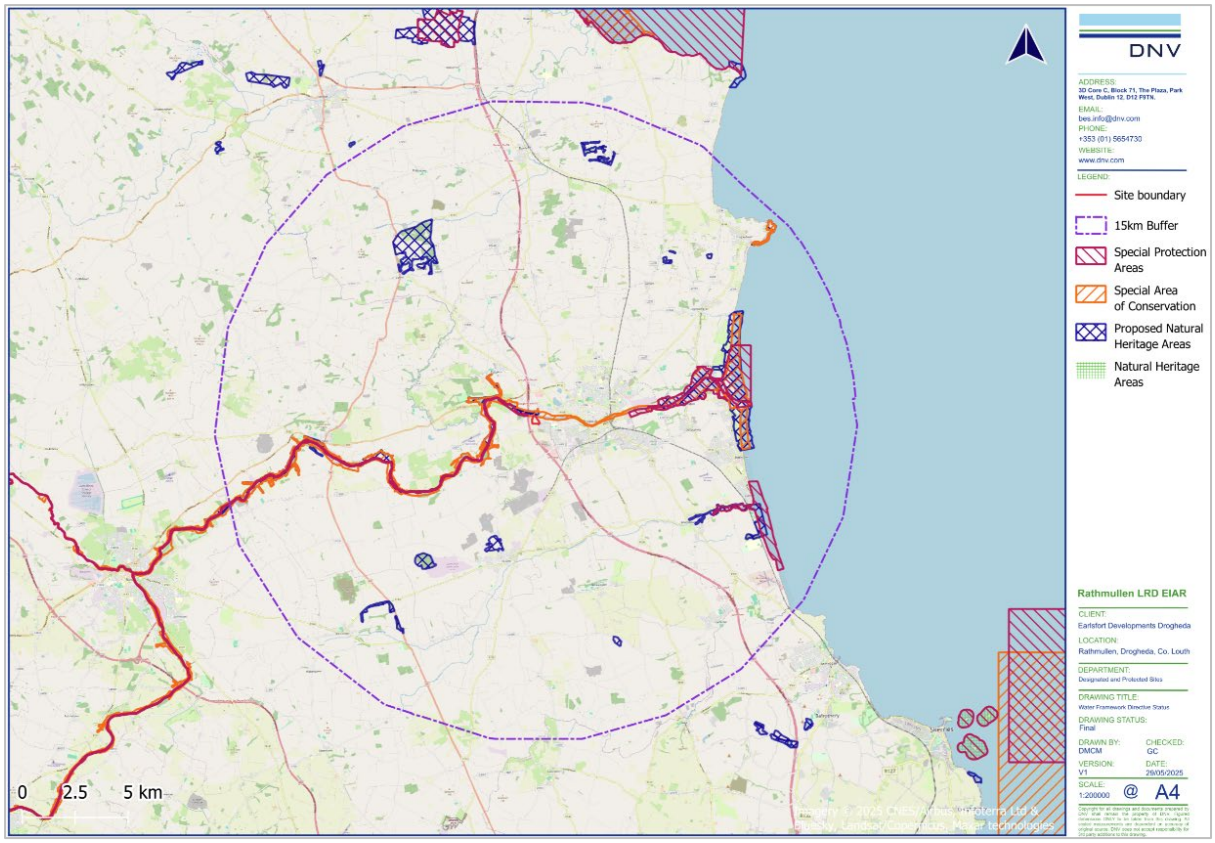

Figure 4-3. Designated and Protected Sites

4.4.2 Additional Protected Areas

The WFD brings together the processes and aims of a range of other European Directives, such as the Revised Bathing Water Directive (2006/7/EC), the Shellfish Directive (2006/113/EC) and the Conservation of Natural Habitats and of Wild Fauna and Flora Directive (92/43/EEC). These Directives establish protected areas to manage water, nutrients, chemicals, economically significant species, and wildlife, and have been brought in line with the planning timescales of the WFD.

4.4.2.1 Drinking Water

The river drinking water protected areas (DWPA) are represented by the full extent of the Water Framework Directive (WFD) river waterbodies from which there is a known qualifying abstraction of water for human consumption as defined under Article 7 of the WFD.

There are no surface water drinking water sources, under Article 7 of the Water Framework Directive, identified by the EPA (EPA, 2025) hydraulically downstream of the site. However, there are two (2 No.) rivers upstream of the site within the 2km radius of the site, the Tulaigh_Álainn River (WFD Name: Boyne_180; EPA code: IE_EA_07B042200) is located approximately 1.7km northwest of the site and discharges into the Boyne Estuary. The Boyne River (WFD Name: Boyne_180; EPA code: IE_EA_07B042200) is located approximately 1.9km west of the site and also discharges into the Boyne Estuary. The groundwater body beneath the site, the Drogheda GWB (IE_EA_G_025) is classified under Article 7 Abstraction for Drinking Water.

4.4.2.2 Shellfish Areas

Although the Shellfish Waters Directive (SWD) has been repealed, areas used for the production of shellfish that were designated under the SWD, are protected under the WFD as “areas designated for the protection of economically significant aquatic species”.

The requirement from a WFD perspective is to ensure that water quality does not impact on the quality of shellfish produced for human consumption. In Ireland, 64 areas have been designated as shellfish waters (S.I. No. 268 of 2006, S.I. No. 55 of 2009, S.I. 464 of 2009).

The closest designated Shellfish Area location is the Balbriggan\Skerries (IE_EA_020_0000) located approximately 10.2km southeast of the site.

4.4.2.3 Nutrient Sensitive Areas

EU member states are required under the Urban Wastewater Treatment Directive (91/271/EEC) to identify nutrient-sensitive areas. These have been defined as “natural freshwater lakes, other freshwater bodies, estuaries and coastal waters which are found to be eutrophic or which in the near future may become eutrophic if protective action is not taken”.

The closest designated nutrient-sensitive area (estuaries and lakes) is the Boyne Estuary (IE_EA_010_0100-Urban Wastewater Treatment Directive Sensitive Area) located approximately 42m north of the site at its closest point. In addition, the closest nutrient-sensitive area (rivers) is the Boyne River (Urban Wastewater Treatment Directive Sensitive Area) located approximately 1.9km east of the site at its closest point.

4.4.2.4 Bathing Waters

Bathing waters are designated under Regulation 5 of Directive 2006/7/EC. Designated Bathing Waters exist under S.I. No. 79/2008 and S.I. No. 351/2011 Bathing Water Quality (Amendment) Regulations 2011. EC Bathing Water Profiles - Best Practice and Guidance 2009.

The closest designated Bathing Water location is Laytown/Bettystown (IEEABWC020_0000_0700) located approximately 9.7km southeast of the site (EPA, 2025).

5 STAGE 1 - SCREENING FOR POTENTIAL EFFECTS

This stage aims to determine if the Proposed Development impacts WFD waterbodies. It involves gathering relevant design information of the Proposed Development and the baseline environment of potentially impacted waterbodies. Where no potential impact pathways are identified, Stage 2 and 3 of the assessment are not undertaken.

The screening stage includes the following:

- Initial screening to identify relevant water bodies using criteria such as direct impact, connectivity, and underlying groundwater bodies.
- Reviewing the RBMP to decide which water bodies to include.
- Collecting baseline data and relevant design information of the Proposed Development.

The screening assesses the potential risk to WFD objectives based on design, implementation, and baseline data. Activities associated with the Proposed Development are divided into construction and operational phases, as detailed in Section 3. The assessment uses expert knowledge for a qualitative evaluation of potential risks to WFD objectives.

5.1 Surface Waterbodies

The methodology for screening surface waterbodies is based on proximity to the proposed works and scale and nature of the works likely to affect the waterbody in question. The initial study area extends beyond the site boundaries and includes a 2.0km radius of the site (i.e., Proposed Development) and potential receptors outside of this radius that are potentially hydrologically connected with the site which is based on the Institute of Geologists of Ireland (IGI) Guidelines (IGI, 2013). The extent of the wider study area was based on the IGI Guidelines (IGI, 2013) that recommend a minimum distance of 2km radius from the site. This broader study area is necessary to identify and evaluate all potential receptors that could be affected by the Proposed Development, either directly or indirectly. The distinction between the site and the study area is crucial. The site of the Proposed Development is the focal point of the Proposed Development, while the study area includes any potential hydrogeological / hydrological connections to sensitive receptors including habitats that might experience secondary effects.

The WFD status for river, lake, transitional and/or coastal water bodies that have a potential hydrological connection to the site as recorded by the EPA (EPA, 2025) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003) are provided in Table 5-1 which also presents the screening exercise undertaken for identified surface waterbodies within the study area.

Table 5-1. Surface Waterbodies Screening Assessment

Waterbody Name	Waterbody EU Code	Screening Assessment	Justification
Stagrennan_010	IE_EA_07S320550	Screened Out	There is no identified hydraulic connection between the site and the Sheephouse_07 Stream (WFD Name: Stagrennan_010) which is culverted along the eastern boundary of the site. Prior to the construction of the M1 motorway, this ditch formed the lower reach of a watercourse originating to the southwest of the site. The M1 has disconnected the lower section from its catchment upstream of the M1 motorway which is now a disused ditch and no longer considered to be a functional fluvial watercourse (JBA, 2025). No portion of the proposed surface water drainage network will discharge to the remnant channel. Therefore, it has been screened out of further assessment.
Tullyeskar_010	IE_EA_07T270880	Screened Out	Surface waterbody located approximately 128m north of the site, which runs in a southerly direction before discharging into the Boyne Estuary. However, it is located on the other site of the Boyne Estuary and so is unlikely to be affected by the construction and operation phases of the Proposed Development. No works are to be undertaken within the catchment of this waterbody and there are no proposed construction or operational activities that could propagate upstream and adversely affect the waterbody. Therefore, it has been screened out of further assessment.
Boyne Estuary Transitional Waterbody	IE_EA_010_0100	Screened In	Waterbody directly downstream of the Proposed Development and within the same subcatchment (Boyne_SC_130) which has been screened in due to its proximity to the site and the fact that there is a hydraulic connection via the site and the Drogheda WWTP discharge. Furthermore, foul water from the Proposed Development will be discharged via the Drogheda WWTP to this waterbody and therefore, it has been screened in of further assessment.
Boyne Estuary Plume Zone Coastal Waterbody	IE_EA_010_0000	Screened In	Waterbody directly downstream of the Proposed Development which has been screened in based on its hydraulic connection with the Boyne Estuary and the WWTP.
Louth Coast (HA 06)	IE_NB_025_0000	Screened Out	There is an indirect connection to the site via the Boyne Estuary Plume Zone Coastal Waterbody. However, based on the significant separation distance from the site and substantial water volumes (i.e., dilution) associated with transitional and coastal waterbodies (i.e., Boyne Estuary and Boyne Estuary Plume Zone Coastal Waterbody), it is unlikely that the construction and operational phases of the Proposed Development will have a potential to adversely affect water quality status. Furthermore, The Proposed Development is anticipated to have no potential to cause a deterioration in the status of these waterbodies or hinder the future attainment of good surface water quality objectives.
Northwestern Irish Sea (HA 08)	IE_EA_020_0000	Screened Out	

5.2 Groundwater

Similar to surface waterbodies (refer to Section 5.1), the methodology for screening groundwater bodies is based on proximity to the site of the Proposed Development and the scale and nature of the works likely to effect the waterbody in question.

The WFD status and risk for groundwater bodies that have a potential hydrological connection to the site as recorded by the EPA (EPA, 2025) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003), are provided in Table 5-2 and Figure 4-2.

Groundwater bodies (GWB) within the 2km radius of the site and Proposed Development were screened in for assessment. Therefore, the Drogheda GWB (Regionally Important Aquifer - Karstified (diffuse)) underlying the site has been screened in. No other groundwater bodies (i.e. Wilkinstown GWB, Trim GWB and Donore GWB) in the vicinity of the site are sufficiently close or hydraulicly connected (i.e., upgradient of the site) to the site to have their status impacted as a result of the Proposed Development.

Table 5-2 Groundwater Bodies Screening Assessment

Waterbody Name	Waterbody EU Code	Screening Assessment	Justification
Drogheda GWB	IE_EA_G_025	Screened In	There is a pathway for (i.e., direct hydrogeological link) contamination to enter the already "At Risk" Drogheda GWB, during the construction phase of the Proposed Development, via groundwater flow, which could potentially degrade the water quality of the already pressured GWB (Drogheda GWB) if unmitigated. Construction will temporarily increase groundwater vulnerability and exposure during the excavation of soils and subsoils. Groundwater was not encountered during the site investigations (WM, 2025b) undertaken at the site in 2018, where the wells were drilled to a maximum depth of 8.5mbgl. However, there may be a need to temporarily dewater if groundwater is encountered during the construction phase of the Proposed Development.
Wilkinstown GWB	IE_EA_G_010	Screened Out	GWB located north of the site, however, unlikely to be affected during the construction phase of the Proposed Development, as the site is discharging into the Boyne Estuary, which is within the Drogheda GWB. Therefore, it is unlikely for potential pollutants to migrate to the Wilkinstown GWB to cause adverse effects on the status.
Trim GWB	IE_EA_G_002	Screened Out	GWBs located upgradient of the main GWB (Drogheda GWB) beneath the site. Proposed works during the construction phase of the Proposed Development will not have the potential to adversely affect the status of the underlying GWB if unmitigated.
Donore GWB	IE_EA_G_021	Screened Out	

5.3 Register of Protected Areas

The WFD Register of Protected Areas is a comprehensive list of areas designated under the Water Framework Directive (WFD) that require special protection due to their environmental significance. These areas include:

- Drinking Water Protected Areas: Areas designated for the abstraction of water intended for human consumption.
- Areas for the Protection of Economically Significant Aquatic Species: Such as shellfish waters.
- Recreational Waters: Including bathing waters.
- Nutrient-Sensitive Areas: Such as nitrate vulnerable zones.
- Areas for the Protection of Habitats and Species: Including those designated under the Habitats Directive and Birds Directive.

The register helps ensure that these areas are managed and their integrity protected to meet the Article No.4 objectives set out in the WFD.

The WFD and its associated directives provide a robust framework for the protection of water bodies, including protected areas. Guidance documents, such as the CIS guidance (European Commission, 2021. Common Implementation Strategy) on the delineation of water bodies and groundwater monitoring, clarify the requirements for protected areas and their integration into the overall water management strategy.

Given this integrated approach, a separate screening / risk evaluation for protected areas is not required. The existing assessment process already encompasses the necessary considerations and measures to protect these areas. The assessment ensures compliance with the WFD objectives including protected areas.

Potential impacts of the Proposed Development on protected areas are discussed further in Chapter 5 Biodiversity, Chapter 6 Soil and Chapter 7 Hydrology and Hydrogeology of the Environmental Impact Assessment (EIAR) and HRA (submitted as Appendix 7-1 in Chapter 7 Hydrology and Hydrogeology) submitted with the planning application for the Proposed Development.

5.4 Water Action Plan (WAP) 2024 Programme of Measures

The Water Action Plan (WAP) provides information on the status and planned actions for surface waterbodies in Ireland. These entries offer insights into the specific measures being considered or implemented to improve the ecological status of the surface waterbodies.

The WAP identifies several key pressures impacting water quality in surface waterbodies across the country:

- Nutrient Pollution: Excessive levels of phosphorus and nitrogen from agricultural runoff are a significant concern. These nutrients can lead to eutrophication, which depletes oxygen in the water and harms aquatic life
- Urban Pollution: Inadequately treated wastewater and stormwater runoff from urban areas contribute to the degradation of water quality. This includes pollutants such as heavy metals, oils, and other contaminants
- Physical Modifications: Changes to the river's natural flow and structure, such as barriers and drainage works, disrupt the ecosystem and affect water quality

- Climate Change: Altered weather patterns and increased frequency of extreme weather events exacerbate existing pressures on water quality.

The WAP identifies several suggested actions to protect and restore water quality in surface waterbodies ensuring a sustainable and healthy aquatic environment. The actions include:

- Nutrient Management: Implementing stricter controls on agricultural practices to reduce nutrient runoff. This includes promoting the use of buffer strips, cover crops, and precision farming techniques
- Improving Wastewater Treatment: Upgrading wastewater treatment facilities to ensure that effluents meet higher standards before being discharged into waterbodies
- Restoring Natural Ecosystems: Removing or modifying barriers to restore natural river flow and habitat connectivity. This also involves re-naturalizing riverbanks and floodplains
- Integrated Catchment Management: Developing and implementing catchment-specific management plans that address local pressures and involve stakeholders in decision-making processes
- Climate Adaptation Measures: Enhancing resilience to climate change by incorporating adaptive management strategies and investing in green infrastructure.

5.5 Climate Change

It is generally understood that the likely effects of climate change have the potential to exacerbate pressures on waterbodies in the future. However, regarding the proposed developments inclusion of appropriate climate change allowances in the design of SuDS as well as consideration as part of the schemes Site Specific Flood Risk Assessment ensure that the proposed development is sufficiently adaptable to accommodate any adverse effects and there is no potential for adverse effects to waterbodies as a result of climate change.

6 STAGE 2 - SCOPING OF FURTHER INVESTIGATIONS

The publicly available data reviewed in this assessment has been deemed adequate for appraising the potential risks associated with the proposed development in relation to WFD Article 4 objectives. The use of desk-based information is appropriate for this assessment due to the comprehensive nature of existing baseline data recorded as part of the EPAs ongoing WFD monitoring programme with supplemental data provided by organisations such as the GSI, NPWS and OPW. This provides sufficient insight into hydrological and hydrogeological conditions without necessitating further investigations.

7 STAGE 3- WFD IMPACT ASSESSMENT

Potential effects of the Proposed Development on the WFD surface waterbody status (i.e., river waterbodies, transitional waterbodies, etc.) both during construction and operation have been considered. Refer to section 1.1, section 7.1, section 7.2 and section 7.3 below for further assessment.

7.1 Transitional Waterbodies

7.1.1 Boyne Estuary

Table 7-1: Boyne Estuary Transitional Waterbody

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Hydromorphology quality	Yes	No	No works are proposed in or adjacent to the waterbody or its bank either during the construction or operational phases of the Proposed Development and diversions of water courses are not required for the construction phase. However, during construction, excavations of soils and subsoils and stockpiling required as part of the construction phase of the Proposed Development have the potential to mobilise suspended solids directly into the Boyne Estuary and adversely affect the hydromorphological quality of this receiving waterbody.	Mitigation measures required.
Biological quality	Yes	No	Excavations of soils and subsoils and stockpiling required as part of the construction phase of the Proposed Development have the potential to mobilise suspended solids directly into the Boyne Estuary and adversely affect the biological quality of this receiving waterbody. Furthermore, the use of deleterious materials such as fuels, oils and cementitious materials will be required to be used onsite through the construction phase and so, any fugitive emission has the potential to adversely affect this waterbody. No riverbed works or works along banks are proposed during either the construction or operational phase of the Proposed Development, so there will be no direct risk to habitats or species.	Mitigation measures required.
Physico-Chemical quality	Yes	No	Excavations of soils and subsoils and stockpiling required as part of the construction phase of the Proposed Development have the potential to mobilise suspended solids directly into the Boyne Estuary and adversely affect the physico-chemical quality of this receiving waterbody. Furthermore, the use of deleterious materials such as fuels, oils and cementitious materials will be required to be used onsite through the construction phase and so, any fugitive emission has the potential to adversely affect this waterbody and would result in significant long-term effects. This risk will significantly reduce following the completion of construction, which would remove the need for heavy machinery and vehicles onsite.	Mitigation measures required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
			No riverbed works or works along banks are proposed during either the construction or operational phase of the Proposed Development, so there will be no direct risk to habitats or species.	
Protected Sites	No	No	Targeted field surveys were completed at and surrounding the Proposed Development site to identify whether mobile species of conservation interest (SCIs) of surrounding SACs and SPAs relied on the development site and whether the development site represented an ex-situ habitat for these species. Following the surveys, it is concluded that the Proposed Development site does not function as an ex-situ habitat for these species and there is no mobile species pathway connecting the Proposed Development to SACs or SPAs in the wider surrounding area. The following European Sites were screened in for further examination (as part of this Natura Impact Statement report) due to the potential for a mobile species pathway to connect the Proposed Development to them: Natura 2000 sites: • River Boyne and River Blackwater SAC. • Boyne Coast and Estuary SAC. • Boyne Estuary SPA. • North-West Irish Sea SPA Other Protected Sites: • Boyne River Islands pNHA. • Boyne Coast and Estuary pNHA Given the absence of a mobile species pathway between the Proposed Development and these SPAs / SACs there will be no potential for construction phase works to result in adverse effects to these four European Sites. For further details, refer to Chapter 5 (Biodiversity) of the EIAR and NIS submitted with the planning application under separate cover.	None required.

7.2 Coastal Waterbodies

7.2.1 Boyne Estuary Plume Zone Coastal Waterbody

Table 7-2. Boyne Estuary Plume Zone Coastal Waterbody Impact Assessment

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Hydromorphology quality	No	No	No works proposed in or adjacent to the Boyne Estuary Plume Zone Coastal Waterbody. As such it is considered unlikely that the Proposed Development will adversely affect hydromorphological status of receiving watercourses.	None required.
Biological quality	No	No	No works are proposed in or near the Boyne Estuary Plume Zone, therefore, there will be no direct risk to habitats or species.	None required.
Physico-Chemical quality	No	No	Excavations of soils and subsoils and stockpiling required as part of the construction phase of the Proposed Development have the potential to mobilise suspended solids directly into the Boyne Estuary Plume Zone and adversely affect the physico-chemical quality of this receiving waterbody, as well as the use of deleterious materials such as fuels, oils and cementitious materials during the construction phase. However, it is unlikely that it will have any significant effect on the overall status of the waterbody given the separation distances from the Proposed Development and the tidal nature of this waterbody. Furthermore, there are no direct discharges from the Proposed Development to this waterbody, although an indirect connection exists through the Boyne Estuary waterbody and the Drogheda WWTP. However, it is considered that any effects associated with normal operational discharges of foul water to the Drogheda WWTP from the Proposed Development will be insignificant in regard to the coastal waterbody due to the distances involved and dilution within the waterbody. Based on the separation distances from the Proposed Development, there will be no direct risk to habitats or species during either the construction or operational phase of the Proposed Development.	None required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Ecological Sites	No	No	Targeted field surveys were completed at and surrounding the Proposed Development site to identify whether mobile species of conservation interest (SCIs) of surrounding SACs and SPAs relied on the development site and whether the development site represented an ex-situ habitat for these species. Following the surveys, it is concluded that the Proposed Development site does not function as an ex-situ habitat for these species and there is no mobile species pathway connecting the Proposed Development to SACs or SPAs in the wider surrounding area. The following European Sites were screened in for further examination (as part of this Natura Impact Statement report) due to the potential for a mobile species pathway to connect the Proposed Development to them: Natura 2000 sites: • River Boyne and River Blackwater SAC. • Boyne Coast and Estuary SAC. • Boyne Estuary SPA. • North-West Irish Sea SPA Other Protected Sites: • Boyne River Islands pNHA. • Boyne Coast and Estuary pNHA Given the absence of a mobile species pathway between the Proposed Development and these SPAs there will be no potential for construction phase works to result in adverse effects to these four European Sites. For further details, refer to Chapter 5 (Biodiversity) of the EIAR and NIS submitted with the planning application under separate cover.	None required.

7.3 Groundwater Bodies

7.3.1 Drogheda GWB

Table 7-3: Drogheda GWB Impact Assessment

Status	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Chemical quality	Yes	No	During the excavation works, the groundwater vulnerability will temporarily be increased and there will be an increased risk to the underlying bedrock aquifer due to the potential for accidental releases of deleterious materials (e.g., fuels or other hazardous materials being used onsite), through the failure of secondary containment, a material handling accident at the site or from machinery utilised during the construction phase of the Proposed Development creating a direct pathway to the underlying bedrock aquifer. This risk will significantly reduce, following the completion of the construction phase, which would remove the need for heavy machinery and vehicles onsite and for hazardous material to be stored onsite. Proper mitigation measures during the construction phase will reduce the risk posed to the groundwater body chemical status to an acceptable level. Use of Cementitious Materials - There is a potential risk associated with the cementitious materials used during the construction works including construction of foundations and other structures impacting on the underlying groundwater at the site. During the operational phase of the Proposed Development, there will be no storage of hazardous material onsite and surface water runoff from the Proposed Development will be managed in accordance with SuDS and GDSDS. Therefore, no adverse chemical effects are predicted to occur.	Mitigation measures required.
Quantitative quality	No	No	During the excavation works and stockpiling, there is a potential for soil compaction from heavy machinery used in the construction phase, which has the potential to reduce infiltration of rainwater into the aquifer beneath the site, and therefore, decreasing the recharge potential of groundwater. Furthermore, groundwater was not encountered during the site investigations which extended to a maximum depth of 8.5mbgl (WM, 2018) and it is unlikely to be encountered during the excavation works for foundations and utility drainage. Due to the karstified nature of the Drogheda GWB and the recharge patterns of those aquifers (i.e., karst), which are characterised by uneven distribution of permeability through the rock, it is envisaged that the recharge capacity of the aquifer will not be impeded during the construction phase of the Proposed Development. During the operational phase there will be no discharges to groundwater or abstraction of groundwater as part of the Proposed Development. Therefore, no adverse quantitative effects are predicted to occur.	No

8 DESIGN AVOIDANCE AND MITIGATION

The measures outlined in this section of the report will ensure that there will be no significant impact on the receiving waterbodies. The effective implementation of these measures will ensure that the Proposed Development will not have any impact on compliance with the EU Water Framework Directive, European Communities (Environmental Objectives) Surface Water Regulations (S.I. 272 of 2009 and as amended) and the European Communities Environmental Objectives (Groundwater) Regulations (S.I. No. 9 of 2010 and as amended) individually or in combination.

8.1 Construction Phase

During the Construction Phase, all works will be undertaken in accordance with the Construction Environmental Management Plan (CEMP) (MW, 2025b) and the Resource and Waste Management Plan (RWMP) (DNV, 2025). Following appointment, the contractor will be required to further develop the CEMP and RWMP to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground and surface water with regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA-C532', CIRIA, 2001). The CEMP and RWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development. Refer to the EIAR (Water Chapter - Volume 3) submitted with the planning application for the mitigation measures proposed for the Proposed Development.

These measures will address the main activities of potential impact which include:

- Control and Management of surface water runoff.
- Control and management of shallow groundwater during excavation and dewatering.
- Management and control of soil and materials.
- Appropriate fuel and chemical handling, transport and storage.
- Management of accidental release of contaminants at the site.
- Control and handling of cementitious materials.

There will be no authorised discharge of water to ground during the construction phase. Where surface water runoff must be pumped from the excavations, water will be managed in accordance with best practice standards (i.e., CIRIA C750), the CEMP (WM, 2025b) and regulatory consents to minimise the potential effect on the local groundwater flow regime within the underlying aquifer and surface water bodies. Surface water runoff will be discharged by the contractor, following appropriate treatment (e.g., settlement or hydrocarbon interceptor) to sewer in accordance with the necessary discharge licences issued by UE under Section 16 of the Local Government (Water Pollution) Acts and Regulations for any water discharges to sewer or from MCC under Section 4 of the Local Government (Water Pollution) Act 1977, as amended in 1990 for discharges to surface water. Under no circumstances will any untreated wastewater generated onsite (from equipment washing, road sweeping etc.) be released offsite. Where required, all public sewers will be protected to ensure that any untreated wastewater generated onsite does not enter the public sewers.

Cut-off trenches will be constructed prior to stripping topsoil along the northern boundary of the Proposed Development. These cut-off trenches will have a settlement pond / silt trap at

the end of each trench with an overflow. Straw bales will be placed within the cut-off trenches at strategic locations and at the outfall of the settlement ponds to the overflow. Silt fencing will also be installed on the downgradient side of the cut-off trenches to prevent surface water runoff to the water course and will be retained in place for the duration of the construction phase until the development is complete. The project specific CEMP (which will be prepared by the main contractor in advance of construction works commencing) will identify how the silt fencing is to be installed and maintained throughout the construction phase.

All water leaving the site during construction will be desilted using standard techniques. Settlement ponds/silt traps will be provided by the contractor where necessary and regularly maintained to prevent silts and soils from being washed away into the existing ditches/watercourses during periods of heavy rain and during the drainage works.

The main contractor will appoint a suitably qualified person to oversee the implementation of measures for the prevention of pollution to the receiving surface water environment.

Regular testing of surface water discharges will be undertaken at the outfall from the subject lands. The location will be agreed between the project ecologist and the site foreman at the commencement of works. Trigger levels for halting works and re-examining protection measures will be: pH >9.0 or pH 25 mg/l. These trigger levels are based on those outlined within ‘Guidelines on Protection of Fisheries During Works in and Adjacent to Waters (IFI, 2016)’.

Where silt control measures are noted to be failing or not working adequately, works will cease in the relevant area. The project ecologist will review and agree alternative pollution control measures, such as deepening or redirecting trenches as appropriate, before works may recommence.

The use of wheel wash and water treatment facilities will be used as required onsite. The correct use and management of these will be undertaken by the appointed contractor to ensure that there is no harm to the receiving water environment.

Where required, stockpiles of loose materials pending re-use onsite will be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains.

- To help shed rainwater and prevent ponding and infiltration, the sides and top of the stockpiles will be regraded to form a smooth gradient with compacted sides reducing infiltration and silt runoff.
- Where required, silt fences will be erected at the toe of stockpiles to prevent runoff.
- The silt fences will be monitored daily by the appointed contractor and silt will be removed as required.

During the construction phase, fuelling and lubrication of equipment will be carried out in accordance with the procedures outlined in the CEMP in a designated area of the site away from any watercourses and drains (where not possible to carry out such activities onsite). Any diesel, fuel or hydraulic oils stored onsite will be stored in designated areas. These areas will be bunded and located away from surface water drainage and features. Bunds will have regard to Environmental Protection Agency guidelines ‘Amendment to IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities’ (EPA, 2013). The main contractor

will maintain an emergency response action plan and emergency procedures will be developed by the appointed contractor in advance of any works commencing.

Strict supervision of contractors will be adhered to in order to ensure that all plant and equipment utilised onsite is in good working condition. Any equipment not meeting the required standard will not be permitted for use within the Proposed Development site. Only emergency breakdown maintenance will be carried out onsite. Drip trays and spill kits will be available onsite to ensure that any spills from vehicles are contained and removed offsite.

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available onsite, including in vehicles operating onsite. Construction staff will be familiar with emergency procedures in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

- Any required emergency vehicle or equipment maintenance work will take place in a designated impermeable area within the site.
- Emergency response procedures and contingency plans will be put in place, in the unlikely event of emergency accidents (i.e., spillages of fuels or lubricants).
- Spill kits, including oil absorbent material, will be provided and available onsite, so that any spillage of fuels, lubricants or hydraulic oils will be immediately contained.
- In the event of a leak or spill from equipment in the instance of a mechanical breakdown during operation, any contaminated soil will be removed from the Proposed Development site and compliantly disposed of offsite. Residual soil will be tested to validate that all potentially contaminated material has been removed. This procedure will be undertaken in accordance with industry best practice procedures, standards and EPA guidelines.
- All construction works staff will be familiar with the emergency procedures in the event of accidental fuel spillages.
- All construction works staff onsite will be fully trained on the use of equipment.

All below ground drainage infrastructure will be constructed in accordance with current UE requirements to ensure that there are no potential impacts to groundwater quality.

Welfare facilities have the potential, if not managed appropriately, to release organic and other contaminants to ground or surface water courses. Foul drainage from temporary welfare facilities during the construction phase of the Proposed Development will either be discharged to temporary holding tank(s), the contents of which will periodically be tankered off site to a licensed facility or discharged to public sewer in accordance with the necessary temporary discharge licences issued by UE. The Drogheda WWTP is operated in accordance with relevant statutory approvals issued by UE. The increase discharge to the Drogheda WWTP as a result of the Proposed Development is considered to be insignificant in terms of the overall scale of the facility. The increased load does not have the capacity to alter the effluent released from the WWTP to such an extent as to result in likely significant effects on its receiving waters. Therefore, there will be no potential impact at any Natura 2000 sites associated with discharges from the site.

8.2 Operational Phase

Based on the design of the Proposed Development there are limited potential sources of contamination during the operational phase and there will be limited potential for discharge of

contaminants associated with surface water runoff to ground via unpaved, permeable areas due to the low infiltration potential at the site. Surface water will be managed in accordance with the principles and objectives of SuDS and the GDSDS to treat and attenuate water within the different catchments prior to discharging to the Boyne Estuary. Ongoing regular operational monitoring and maintenance of drainage and the SuDS measures will be incorporated into the overall management strategy for the Proposed Development. This will ensure that there are no effects on water quality and quantity (flow regime) during the operational phase of the Proposed Development.

Foul water during the operational phase of the Proposed Development will ultimately discharge via the Drogheda WWTP to the Boyne Estuary transitional waterbody and subsequently to the Boyne Estuary Plume Zone coastal waterbody under the appropriate consents from UE. As mentioned above, the Drogheda WWTP, does not have an observable effect on the water quality, nor does it have an observable negative effect on the WFD status. Foul water from the site will only be discharged to the UE network under the appropriate consents from UE, and therefore, the Proposed Development will not cause a potential impact on the WFD status of any receiving waterbody.

8.3 Residual Risk to Waterbody Status

The effect of the design avoidance and mitigation measures have been assessed and summarised in Table 8-1 below, which provides a summary of the predicted/potential status changes associated with the Proposed Development, with and without mitigation. In all cases, the proposed measures are sufficient to meet WFD objectives. Similarly, the objectives of the WFD Register of Protected Areas will not be compromised and their long-term integrity will be preserved.

Table 8-1. Summary of WFD Status for Unmitigated and Mitigated Scenarios

Name	EPA Code	Current WFD Status (2016-2021)	Current WFD Risk	Potential Unmitigated WFD Status Change	Potential Mitigated WFD Status Change
Construction Phase					
Transitional waterbody					
Boyne Estuary	IE_EA_010_0100	Moderate	At Risk	Poor	Moderate
Coastal waterbody					
Boyne Estuary Plume Zone Coastal Waterbody	IE_EA_010_0000	Moderate	At Risk	Moderate	Moderate
Groundwater Waterbody					
Drogheda	IE_EA_G_025	Good	At Risk	Moderate	Good
Operational Phase					
Transitional waterbody					
Boyne Estuary	IE_EA_010_0100	Moderate	At Risk	Poor	Moderate
Coastal waterbody					

Name	EPA Code	Current WFD Status (2016-2021)	Current WFD Risk	Potential Unmitigated WFD Status Change	Potential Mitigated WFD Status Change
Boyne Estuary Plume Zone Coastal Waterbody	IE_EA_010_0000	Moderate	At Risk	Moderate	Moderate
Groundwater Waterbody					
Drogheda	IE_EA_G_025	Good	At Risk	Good	Good

8.4 Potential Impact on Protected Areas Objectives

Based on the findings of this assessment, it is considered that in applying the precautionary principle and assessing a worst-case scenario there is no identified potential negative impact associated with the Proposed Development on the Protected Areas individually or in-combination.

8.5 Residual Cumulative Impacts

Cumulative effects are defined in the European Commission Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, defines cumulative effects as:

"*Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project*".

Effects caused by the interaction of multiple impacts, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect in nature, arising from the accumulation of individually minor impacts that, when combined, may result in more significant environmental consequences. These effects may occur over time or across space and are particularly relevant where multiple developments interact with shared environmental receptors. Refer to Table 8-2

Table 8-2 List of Cumulative Schemes

No.	Application Reg. Ref.	Address	Development Proposal	Decision Date
1	**MCC planning ref: 211757** **ABP-313187-22 Planning**	South Of Oldbridge Manor, Rathmullan Road, Drogheda, Co. Meath	The construction of 26 no. dwellings consisting of 16 no. 3 bed two storey semi-detached dwellings (Type B2/B3/E2), 4 no. 4 bed two storey semi-detached dwellings (Type D2), 6 no. 3 bed two storey terraced dwellings (Type G2/G3/G4/G5/F) including all roads, footpaths, landscaping and site development works. A new pedestrian and cycle link is proposed to Sheephouse Road from the site. The vehicular access to the development will be from the public road at 'The Boulevard', Oldbridge Manor. A Natura Impact Statement will be submitted to the Planning Authority with the	08/03/2022 MCC: Granted with 24 no. conditions. 04/04/2022 ABP Appeal Decision Status: Live case stayed by

	Appeal		application. Significant further information/revised plans submitted on this application.	Order of the High Court in [2023] IEHC 218 No decision as of 03/09/2025
2	**MCC Planning ref: 211669** **ABP-313190-22** **Planning Appeal**	South Of Oldbridge Manor, Rathmullan Road, Drogheda, Co. Meath	The construction of 96 no. dwellings consisting of 4 no. one-bed apartments accommodated in 1 pair of two-storey semi-detached maisonettes (type A & A1), 6 No.2 bedroom two storey terraced dwellings (type G, G1) and 83 no. 3 bedroom terraced and semi-detached dwellings (Type B2, B3, D2, D3, E2, G2, G3) and 3 no. 4 bed detached dwellings (Type H) including landscaping, new roads, footpaths, cycle paths and open space including play area and all associated works. Anew pedestrian and cycle link is proposed to Sheephouse Road from the site. The vehicular access to the development will be from the public road at 'The Boulevard', Oldbridge Manor. A Natura Impact Statement will be submitted to the Planning Authority with the application	08/03/2022 MCC: Granted with 24 no. conditions 04/04/2022 ABP Appeal Decision Status: Live case stayed by Order of the High Court in [2023] IEHC 218 No decision as of 03/09/2025
3	**LCC Planning Ref: 22954**	Mell, Drogheda, Co. Louth	Permission for development on lands south of existing M1 Retail Park, bound by Trinity St and Barrack Lane, for: (i) provision of 10 no. single storey retail units including a part-licensed anchor retail supermarket store (Unit1), a DIY/Home store, including a garden centre (Unit 10), 8 no. smaller retail/commercial units, including a cafe and pharmacy (Units 2-8) and 1 no. single storey Drive-Thru Restaurant/Cafe unit, including external seating area. A deliveries area, service yard and ground mounted plant units will be provided to the side (south) and rear (west) of Retail Unit 1, a dedicated set down point is also proposed adjacent to the front entrance to Unit 1. Deliveries will also be accommodated to the rear (south) of proposed Units 2 - 10, with a truck turning area provided to the rear (south) of Unit 10. Dock levellers will be provided to the rear of Units 2 - 10 to facilitate loading and unloading of goods. A total of 311 no. car parking spaces are proposed to serve the development, including 23 no. accessible parking spaces, 2 no. click and collect spaces and 17 no. parent and child spaces. A bus parking area (4 spaces) is provided, 104 no. bicycle parking spaces are proposed. A partially covered pedestrian circulation space will be provided to the front of each of the units. (ii) Provision of 2 no. vehicular and pedestrian connection points to the existing MI Retail Park to the north will provide access to the development; (iii) internal roads, footpaths and pedestrian crossings; (iv) trolly bays, signage, hard and soft landscaping, boundary treatments, Electric Vehicle Charging spaces and lighting; (v) associated site and infrastructural works are also proposed which include foul and surface water drainage, plant areas, 3 no. ESB substations and (vi) all associated	08/09/2023 Granted with 20 no. conditions

			site development works. An EIAR and a NIS has been submitted with this application. *SFI received on 24/07/2023 which consists of: (a) a revised site layout comprising a substantially reduced quantum of retail/commercial development. The proposed development now comprises 3 no. units in total; see revised newspaper & site notices for full amended description*	
4	**LCC Planning Ref: 22975**	Leonards Cross, Slane Road, Mell, Drogheda, Co. Louth	Permission for construction of an 8,005sqm assisted living facility with a total of 98 accommodation units in a range of accommodation types as follows: A) 28 no. reablement studios designed to help people to retain or regain their skills and confidence so they can learn to manage again after a period of illness. B) 52 no. 1 bedroom assisted living suites, C) 16 no. 2 bedroom assisted living suites. D) 2 no. 1 bed units to be provided through the subdivision of an existing house on site for use as assisted living suites, or as staff/visitor accommodation. The proposed facility will include cafe/restaurant facilities, staff and administration spaces, nurses station, recreation rooms, meeting spaces, treatment rooms and landscaped gardens together with all associated site development works including boundary walls and fences, car parking, waste water pumping station, surface water attenuation and connections to public utilities, as well as plant rooms, a bin store, roof mounted solar panels and an ESB substation. The facility will deliver a range of tailored care packages to elderly residents on a rental basis only, none of the units will be made available for sale	10/02/2023 Granted with 19 no. conditions
5	**LCC Planning Ref: 211283** **(Amended by 260368 & 246026 6)**	Old Slane Road & Mell, Tullyallen, Drogheda, Co. Louth	An application has been made to An Bord Pleanála for permission for a 237 no. dwellings in detached, semi-detached, terraced/townhouse, terraced/duplex and apartment form. Building range in height from 1 to 5 storeys in the following mix - 19 no. 1 bed, 98 no. 2 bed, 99 no. 3 bed and 21 no. 4 bed. Apartment block 5 will have an undercroft car park. All buildings proposed have the option for the installation of photovoltaic/solar panels. The development will provide for a creche with potential capacity for 65 children. Open public space provided extends to c.9240sq.m. Construction of a footpath with public lighting from northern boundary along southern side of R168 providing pedestrian only connection to the M1 Retail Park. A single vehicular connection to the site is proposed from the Old Slane Road at the southern boundary. Full footpath connectivity will be provided along the Old Slane Rd eastwards to the junction with R168 at Leonards Cross. Works to Old Slane Rd provide for sections of footpath, revised road markings and public lighting. Full footpath connection will be available through site connecting Old Slane Rd to the south with R168 to the north and then on to the M1 Retail Park. All associated site development works incl. a pumping station and rising main, infrastructure and service provision, landscaping, boundary treatments, roads, footpaths and cycle paths, public lighting, ESB substation, electrical vehicle charging points, regrading/infilling of land levels, retaining walls/structures. A Natura Impact Statement is included	08/12/2021 Granted with 33 no. conditions

6	**LCC Planning Ref: 2460514**	Mell, Drogheda, Co. Louth	Permission for development comprising a single warehouse unit, 2 no. site entrances, internal access through road and ancillary works including surface water drainage at Mell, over a proposal application site area of 3.38 ha. The proposed development will include 1 no. warehouse unit of 3,347 m2 in area. The unit has been placed to the east of the site and the yard area at the west, parallel to the main entrance road. The proposed warehouse unit will include ancillary office area of 476 m2 located at the south-eastern corner of the proposed warehouse unit. The yard area is approximately 2,616 m2 and comprises 3no. loading docks and 1no. ground level door, services area and provision for trailer parking. Staff and Visitors' car parking comprises 33 spaces (31 standard sizes and 2 accessible spaces), also provision of a bicycle parking area for 19 bicycles. A proposed internal access road of 516m will be developed, connecting the R166 regional road with the R168. This will include the development of 2 no. accesses, one access onto each of the regional roads. The access road will also include a segregated footpath and cycleway along its length. The development will include all ancillary servicing, surface water management infrastructure, soft landscaping and lighting. Surface water management infrastructure will include permeable paving, rainwater harvesting, underground attenuation tank and detention pond in addition to surface water drainage and a proposed connection point to an existing storm sewer on the R168. A Natura Impact Statement has been prepared for this application	23/05/2025 Granted with 18 no. conditions

It is reasonable to assume that any approved, pending, or further information stage cumulative development has demonstrated (or will demonstrate prior to approval) no adverse environmental effects and the incorporation of good practice measures (e.g., construction phase and permanent SuDS, pollution prevention measures) into their designs. Such measures are expected to manage surface water runoff rate, quantity, and quality, resulting in no adverse effect on waterbody status or WFD objectives.

In accordance with the requirements of the WFD, the cumulative assessment has considered the potential for combined effects arising from the Proposed Development and other relevant projects listed in Table 8-2. This includes consideration of whether such cumulative effects could impact the status of water bodies, protected areas, or the achievement of WFD environmental objectives. Based on the findings of this assessment, no likely significant cumulative effects are predicted.

8.6 Potential Impact on Water Action Plan Programme of Measures

Based on the findings of this assessment, it is considered that in applying the precautionary principle and assessing a worst-case scenario the Proposed Development will have no adverse impacts on the implementation of the WAP Programme of Measures. Adverse impacts associated with historic urbanisation will be negated through the implementation of SuDS and appropriate treatment of foul effluent from the site.

9 CONCLUSIONS

The findings of the risk-based assessment identified that in the absence of any mitigation and avoidance measures there could be a potential impact on the waterbody status within receiving water bodies associated with the Proposed Development, specifically within a local zone of the Drogheda GWB, and receiving waterbodies including the Boyne Estuary Transitional Waterbody, and the Boyne Estuary Plume Zone Coastal Waterbody.

The mitigation measures as outlined above will prevent any impact on the receiving groundwater and surface water environment. Hence, the Proposed Development will not have any impact on compliance with the EU Water Framework Directive, European Communities (Environmental Objectives) Surface Water Regulations, 2009 (SI 272 of 2009, as amended 2012 (SI No 327 of 2012), and the European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010), as amended 2012 (SI 149 of 2012) and 2016 (S.I. No. 366 of 2016).

The Proposed Development will not cause a deterioration in the status of waterbodies hydraulically connected with the Proposed Development, taking account of design avoidance and mitigation measures that will be implemented. The Proposed Development will not jeopardise the objective to achieve 'good' surface water status or good ecological potential required by the WFD.

There will be no impact to the existing WFD status of waterbodies associated with the Proposed Development including the Drogheda GWB, Boyne Estuary Transitional Waterbody, and downstream surface waterbodies as a result of the Proposed Development taking account of embedded design avoidance and mitigation measures. Similarly, the objectives of the WFD Register of Protected Areas will not be compromised and their long-term integrity will be preserved.

9.1 WFD Article 4 Objectives Compliance Statement

The assessment contained within this report has comprehensively demonstrated that the proposed development adheres to the Article 4 objectives of the Water Framework Directive (WFD). Applying the precautionary principle and evaluating a worst-case scenario, it is evident that there are no adverse impacts to the status of waterbodies, thus aligning with the objective to protect, enhance, and restore all bodies of surface water and groundwater, with the aim of achieving good surface water status by 2027.

Furthermore, the proposed development incorporates measures, such as Sustainable Drainage Systems (SuDS) and the appropriate management of construction stage runoff, which will prevent any deterioration in waterbody status and maintain high status where it already exists. Moreover, the necessary measures are being implemented with the aim of progressively reducing pollution in surface waters and groundwater, thereby fulfilling the objective of reducing pollution incrementally.

Regarding a derogation requirement, since none of the Article 4(7) criteria have been triggered, no Article 4(7) assessment is required. Therefore, authorisation for the Proposed Development may be permitted according to the Water Framework Directive (WFD).

Finally, the development ensures that waterbodies associated with Protected Areas will not be subject to significant adverse effects, thereby safeguarding the environmental objectives

set forth for such areas. Consequently, the Proposed Development is in full compliance with the overarching goal of achieving good surface water status by 2027 and maintaining the integrity of the water environment.

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