GALWAY PORT LRD

Water Framework Directive Assessment

The Land Development Agency

Report no.: 1.0, Rev. 1.0
Document no.: 1.0
Date: 02/09/2025

Project name:	Galway Port LRD	Synergy Environmental Limited
Report title:	Water Framework Directive Assessment	T/A DNV
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Date of issue:	02/09/2025	Tel: +1 503 222 5590
Organisation unit:	Contaminated Land & Water	485440
Report no.:	1.0, Rev. 1.0	

Applicable contract(s) governing the provision of this Report:

DNV Short Form Agreement

Objective:

Water Framework Directive Assessment

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Keywords: Water Framework Directive Assessment

Rev. no.	Date	Reason for issue	Prepared by	Verified by	Approved by
1	2025-09-02	Final issue	Nuria Manzanas	Warren Vokes	Patrick Higgins

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1 INTRODUCTION

DNV was commissioned by Altu Architects, on behalf of the Land Development Agency (LDA) (the Applicant) to undertake a Water Framework Directive (WFD) Assessment in support of a proposed Large-scale Residential Development (LRD) (hereafter referred to as the 'Proposed Development') at Galway Port at Dock Road and Lough Atalia Road, Galway City (hereafter referred to as the '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; and,
- 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 C.WEM 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 Patrick Higgins BSc MSc MIEnvSc CEnv, a Technical Director at DNV. Patrick is a Chartered Environmentalist (CEnv) with the Institute of Environmental Sciences (IES) with over 20 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 established to ensure the protection of the water environment. The Directive was transposed in Ireland 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, a condition where waterbodies meet defined ecological and chemical quality standards, 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; and
- Ensure waters in protected areas meet requirements.

2.1.1 National Policy

The WFD is implemented through the River Basin Management Plans (RBMP) and which operate 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, monitoring, and setting 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; and
- 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; and
- 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 considers 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 23 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;
- 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; and
- 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 23 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, such as estuaries, connect fresh waterbodies (i.e., rivers) and coastal waters (i.e., sea).
- Coastal waters.
- Artificial surface waterbodies; and,
- Heavily modified surface waterbodies.

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 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 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 water body 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 waterbody hydromorphologically, which has been altered for anthropogenic purposes (i.e., water supply, flood protection or navigation), the objective is to achieve 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.

2.3.1.3 Groundwater Assessment

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

2.3.1.4 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.

2.3.1.5 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 for a representation of the WFD classification of the waterbodies.

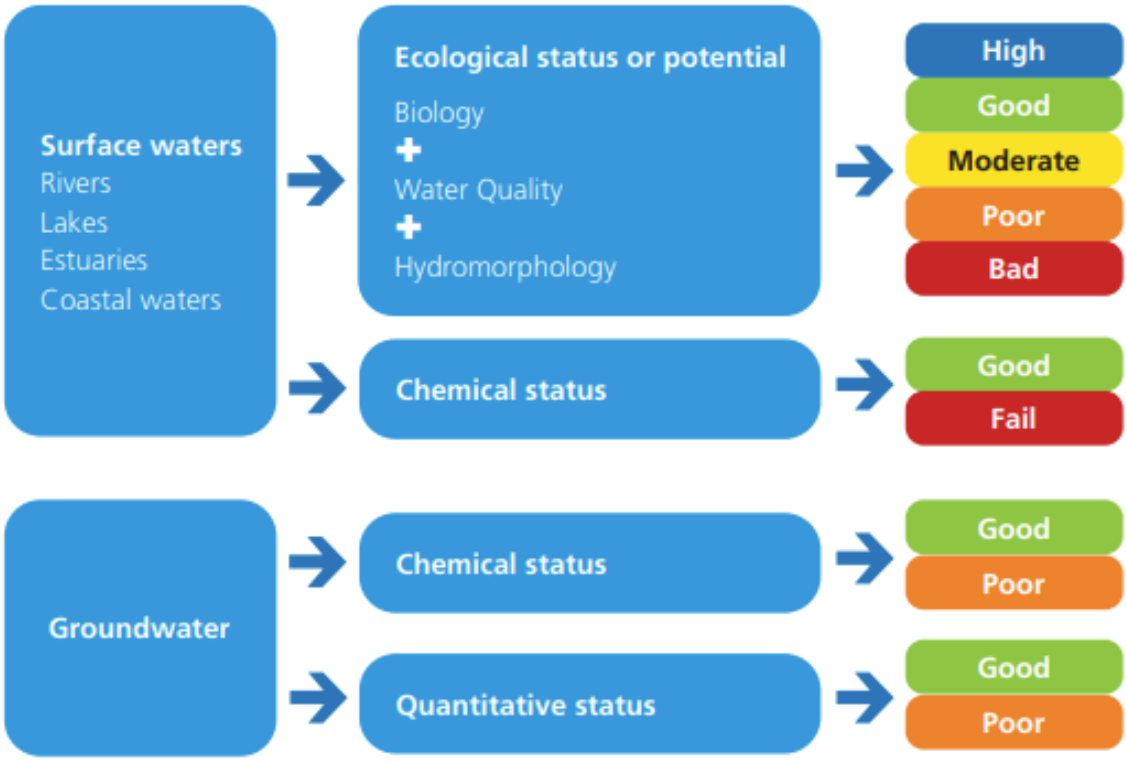

Figure 2-1. WFD Classification (Source: EPA, 2025 – www.catchments.ie)

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 the 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 Proposed Development principally consists of:

- The demolition of the existing office / bus depot building (370.2 sq m) and ancillary building (26.0 sq m);
- The partial demolition of the existing ESB sub-station and ancillary building (67.4 sq m);
- The demolition of existing boundary walls at the south-west and north-west; and
- The construction of a mixed-use development.

The proposed mixed-use development primarily comprises:

- 356 No. residential apartments (172 No. 1-bed, 169 No. 2-bed and 15 No. 3-bed);
- Crèche (255.9 sq m);
- 2 No. café/restaurant units (totalling 428.4 sq m) and 1 No. retail unit (156.0 sq m).

The development has a total floor area of 32,096.0 sq m and is primarily proposed in 4 No. blocks (identified as A–D) that generally range in height from 6 No. to 13 No. storeys: Block A ranges from 6 No. to 9 No. storeys; Block B ranges from 6 No. to 11 No. storeys; Block C is 6 No. storeys; and Block D ranges from 6 No. to 13 No. storeys.

The Proposed Development also includes:

- New internal street and pedestrian network, including a one-way vehicular route at the north-western side of the site and new junctions with Dock Road at the south-west and with the access road from Lough Atalia at the north-west;
- Upgrades to Lough Atalia Road and the access road from it at the north-west of the site, including the provision of a new toucan pedestrian/cycle crossing at Lough Atalia Road; upgrades to the footpath and road interface with Dock Road to the south-west;
- 37 No. car parking spaces;
- 1 No. set-down/delivery bay;
- 741 No. cycle parking spaces;
- Hard and soft landscaping, including as public open spaces and communal amenity spaces;
- Private amenity spaces as balconies and terraces facing all directions; boundary treatments;
- Public lighting;
- Bin stores;
- Double sub-station;
- Plant rooms; green roofs;
- Rooftop lift overruns and plant;
- Rooftop telecommunications, plant and enclosure at Block C;
- Recladding of the existing sub-station and pumping station; and
- All associated works above and below ground.

The Proposed Development will be constructed in two distinct phases to facilitate a staged occupation. The proposed sequence of construction outlined below is subject to confirmation once the building contract has been awarded and on completion of the Detailed Construction Management Plan for agreement with Galway City Council.

The overall duration of the project is anticipated to span approximately 27 months, starting with Blocks A and B, followed by Blocks C and D.

The sequencing of the two phases of the Proposed Development is intended to proceed as follows:

- Phase 1 (approximately 18 months): construction of Blocks A and B (a total number of 186 no. units), road works along Dock Road, new internal street, parking court, upgrade of roadworks adjacent to petrol filling station, toucan crossing and associated footpath etc and landscaping around public square, courtyard and promenade; and
- Phase 2 (approximately 9 months): construction of Blocks C and D (170 no. residential units), landscaping and promenade.

3.1 Construction Phase

The construction phase of the Proposed Development will include:

- The GII report (GII, 2024) recommended the use of pile foundations for the proposed structures at the site given the presence of made ground across the site. Additionally, it was recommended that the floor slab should be suspended and also supported on the building piles. As stated in the GII report (GII, 2024) in regard to the short-term temporary excavations in the cohesive deposits, the excavations will remain stable, for a limited time only and will require to be appropriately battered or the sides supported if the excavation is below 1.25mbgl;
- Excavation of soil and subsoil will be required to allow the construction of roads, building foundations, drainage, and ancillary services. Excavation depths will range from 2.398mbgl to 3.994mbgl;
    - It is estimated by TOBIN that approximately 11,594.268m^3 of soil and subsoil including made ground will be excavated as part of remedial excavations at the site (refer to Drawing No. 11910-2015 & 11910-2016 submitted with the planning application under separate cover);
    - An additional 4,469.252m^3 will be excavated to achieve formation levels, which will be reused onsite (refer to Drawing No. 11910-2015 & 11910-2016 submitted with the planning application under separate cover);
    - Where possible, excavated soil and subsoil materials will be reused for engineering fill and landscaping subject to assessment their suitability for use in accordance with engineering and environmental specification for the Proposed Development. It is estimated that 4,469.252m^3 of material excavated during bulk excavations to achieve formation levels will be re-used onsite. However, all soil and subsoil materials including made ground excavated as part of remedial excavations (approximately 11,594.268 m^3) will be removed from site. This material will be taken for appropriate offsite reuse, recovery, recycling and / or disposal in accordance with the procedures outlined in the Resource and Waste Management Plan (RWMP) (AWN, 2025);
    - It is anticipated that there will be no requirement for the excavation of bedrock during the construction stage of the Proposed Development;
- The volume of fill required to achieve formation levels is approximately 10,353m^3. The importation of 5,884m^3 soil and subsoil materials will be required for the construction of the Proposed Development. Contract and procurement procedures will ensure that all imported soil and subsoil materials required will be sourced from reputable suppliers operating in a sustainable manner and in accordance with industry conformity/compliance standards and statutory obligations;
- The demolition of the existing structures and removal of hardstanding areas onsite will also be required. This material will be taken for appropriate offsite reuse, recovery, recycling and / or disposal in accordance with the procedures outlined in the Resource and Waste Management Plan (AWN, 2025);
- Temporary stockpiling of excavated material will be required pending reuse onsite (where required), or removal offsite;
- There may be a surplus of building materials, such as timber off-cuts, broken concrete blocks, cladding, plastics, metals and tiles generated and there may also be excess concrete during construction which will need to be disposed of (AWM, 2025);
- The importation of aggregate fill materials will be required for the construction of the Proposed Development (i.e., natural stones and gravel, aggregates, and related fill products). All aggregate materials will be sourced from locally available quarries in accordance with the appropriate statutory guidelines;
- Groundwater levels were measured at the site during previous investigations ranging from 2.9mbgl (meters below ground level) (BH08; MKO, 2022) to 5.02mbgl (BH12; MKO, 2022). The maximum excavation depth will be 3.99mbgl and therefore, there may be a requirement to dewater shallow groundwater if encountered during the construction phase of the Proposed Development. Additionally, there may be a requirement for management of surface water (rainwater) within excavations during groundworks;
- Construction of new surface water drainage (refer to Section 3.2.1) 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 Galway City Council (GCC);
- Construction of new foul and mains water connections (refer to Section 3.2.2 and Section 3.2.3) 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); and
- In accordance with current UKWIR16 guidance, the use of barrier pipes for water supply may be required in certain areas of the site to prevent potential permeation of contaminants into drinking water supplies.

3.2 Operational Phase

3.2.1 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);
- Coirib go Cósta Galway City Flood Relief Scheme;
- Galway City Council City Development Plan 2023-2029; and
- Greater Dublin Sustainable Drainage Scheme (GDSDS).

The Greater Dublin Sustainable Drainage Scheme (GDSDS) provides a well-established, comprehensive framework of best practice principles and standards for SuDS that are widely recognised across Ireland. It is used as a benchmark for sustainable drainage design due to its robustness and recognition, supporting the delivery of a surface water system that aligns with both local and national objectives. The GDSDS addresses the issue of sustainability by requiring designs to comply with a set of drainage criteria that aim to minimise the impact of urbanisation by replicating the runoff characteristics of greenfield sites.

As documented in the Civil Works Design Report (TOBIN, 2025), it is proposed that the surface water (stormwater) drainage system for the Proposed Development will cater for all surface water runoff from hard surfaces (i.e., impermeable) within the development, including roadways, carparks, footways, and roofs. The Proposed Development has been divided into two (2 No.) catchment areas, Network A, and Network B. These networks will each direct flow through a petrol interceptor before discharging the stormwater into the proposed attenuation units (Attenuation A and Attenuation B). Accumulated stormwater will discharge to the existing storm network. Ultimate disposal is to outfall in the public storm culvert adjacent to the bridge to the south of the site, which in turn discharges into the Galway Bay at the mouth of Lough Atalia.

All velocities within the networks fall within the limits of 0.8 and 3m/sec as set out in 'Recommendations for Site Development Works' as published by the Department for the Environment (1998). The attenuation system is proposed to discharge surface water runoff from the site to the existing stormwater network. The required storage requirements have been designed based on the CIRIA SuDS Manual C753 Section 11.3 Hydraulic Design.

- Attenuation A – will require catering for a water volume of 154m^3.
- Attenuation B – will require catering for a water volume of 110m^3.

The attenuation units are designed to hold water for the largest storage required over a 48-hour storm period, with rainfall depths taken for the 100-year return period + 20% for climate change. All proposed attenuations have been located to cater for the associated catchment area. All surface water generated onsite will pass through a bypass Petrol Interceptor prior to outfall to each proposed attenuation unit (Attenuation A and Attenuation B) in Network A, and Network B which are designed to separate hydrocarbons from the water before discharging to the attenuation units (i.e., preventing hydrocarbons from entering the tank).

As indicated in the Civil Works Design Report (TOBIN, 2025), '*in calculating the attenuation storage and pipe capacities, a conservative approach has been adopted wherein no infiltration is permitted. Approach 1 is adopted to provide a simplified basis for design compatible with Causeway Flow modelling software. If, after conclusive removal of all contaminated ground, it is desirable to the Galway City Council to entertain the possibility of infiltration to ground within the site to reduce the hydraulic loading on their existing storm water culvert within the public road (into which the proposed outfall discharges), the impermeable liner beneath the permeable surfaces and attenuation zones may be replaced with a suitable permeable geotextile. This approach will ensure that an approved design will accommodate the maximum required storage capacity from the outset but also allow for possible reductions in discharge rates into the public storm system as the opportunity presents itself*'.

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Figure 3-1. Proposed SuDS and Surface Water Drainage Layout (TOBIN Drawing Number – 11910-2004)

The requirements of SuDS are typically addressed by the provision of the following elements specific for the Proposed Development:

- Interception storage; and
- Attenuation storage.

Those elements have been proposed by implementing infiltration tanks with a calculated holding volume. All SuDS measures will be designed in accordance with the EPA's document 'Guidance on Authorisation of Discharges to Groundwater 2011'.

SuDS measures (i.e., interception storage) proposed would be a combination of water butts, rain gardens, swales, tree pits, permeable paving, and drainage kerbs with infiltration trenches/filter strips. Storage capacity has been calculated and provided in discharge soakaways as though no interception storage were provided. This mitigates any seasonal performance issues with the interception storage measures.

SuDS objectives relate to the following elements:

1. Water Quality - A petrol interceptor has been proposed as a general SuDS measure for water treatment. In addition, the drainage kerb and infiltration trench/rain garden combination allow for isolation of hydrocarbons for nature-based treatment within appropriate green zones.
2. Water Quantity - The drainage system is designed to achieve the required thresholds in the event of localised exceedance of SuDS measures or seasonally sensitive capacity reductions, therefore, ensuring that greenfield runoff rates are maintained.
3. Amenity - Proposed rain gardens and tree pits integrate with the broader landscaping strategy.
4. Biodiversity - The landscaping design requires further development in the detailed design stage to accommodate further SuDS measures to leverage opportunities for biodiversity.

The layout of the proposed surface water drainage network is presented in TOBIN Drawing No. 11910-2004 submitted with the planning application under separate cover and in Figure 3-1.

3.2.2 Foul Drainage

As documented in the Civil Works Design Report (TOBIN, 2025), the foul water from the Proposed Development will discharge via gravity to an existing 450mm public foul sewer in the north of the Proposed Development. The proposed foul network has been designed using Causeway Flow software with a capacity of six times the dry weather flow in accordance with the Uisce Éireann (UÉ) Code of Practice for Wastewater Infrastructure UE-CDS-5030-03.

It is proposed that all piping structures in the network will be thermoplastic structured wall pipes with a maximum pipe diameter of 225mm and maximum and minimum gradients of 1/60 and 1/200, respectively. All velocities within the foul network comply with UE Code of Practice for Wastewater Infrastructure requirement for flow velocities greater than self-cleansing velocity (0.75m/sec) and less than 2.5m/s as per Section 3.6 of the UÉ Code of Practice for Wastewater Infrastructure.

A pre-connection enquiry (PCE) for the wastewater discharge from a multi/mixed use 408 units was submitted to UÉ. A Confirmation of Feasibility (COF) was issued by UE on the 23rd of July 2024 (UE COF Reference: CDS24004596). The UÉ COF confirmed the connection to be feasible, subject to upgrades, although it confirmed that there is sufficient capacity for the Proposed Development. To address the requirements of the UÉ COF, *the connection from this site by gravity or pumping will be to the 450mm sewer on Bothar na Long. If gravity is feasible, then a 140m upgrade/extension of the existing sewer will be required to connect the proposed development to the existing public network. Any such network extension would have to be entirely funded by the Customer. The proposed development would require assessment at connection application stage to ensure capacity exists*'. The Applicant will ensure all works are funded as required by UE.

The layout of the proposed foul water drainage network is presented in TOBIN Drawing No. 11910-2002 submitted with the planning application under separate cover. Refer to Figure 3-2.

Foul water from the Proposed Development will be treated in the Galway Wastewater Treatment Plant (Mutton Island WWTP) (Discharge Licence No. D0050-01) before ultimately discharging to the Corrib Estuary transitional waterbody (ID: IE_WE_170_0700).

Figure 3-2. Proposed Foul Layout (TOBIN Drawing Number – 11910-2002)

3.2.3 Water Supply

As documented in the Civil Works Design Report (TOBIN, 2025), it is proposed to connect a 200mm diameter watermain to an existing 300mm diameter UE watermain, which is located running along the existing Lough Atalia Road, north of the proposed site entrance. The proposed 200mm PE watermain is the required size to service the development as per UE specifications. All watermain designs will be fully vetted by UE prior to receiving an offer to connect.

In accordance with Local Authority/UE standards, a water meter and Logging Device (Larson Type) are proposed at the connection into the proposed site. A sluice valve, strainer and 200mm diameter by-pass arrangement is also proposed to allow for possible disconnection of water meters by the Local Authority/UÉ.

A pre-connection enquiry (PCE) for the wastewater discharge from a multi/mixed use of 408 units was submitted to UE. A Confirmation of Feasibility (COF) was issued by UE on the 23rd of July 2024 (UE COF Reference: CDS24004596). The UE COF confirmed the connection to be feasible without infrastructure upgrade by Irish Water and there is also sufficient capacity for the Proposed Development. All watermain designs will be fully vetted by UE prior to receiving an offer to connect.

The watermain layout has been designed in accordance with UÉ Code of Practice for Watermain Infrastructure (UE-CDS-5020-03).

The layout of the proposed water supply is presented in TOBIN Drawing Number - 11910-2001 submitted with the planning application under separate cover and Figure 3-3.

Figure 3-3. Proposed Watermain Layout (TOBIN Drawing Number – 11910-2001)

4 STUDY AREA SCREENING

The WFD screening assessment was based on the information presented on the EPA mapping website (EPA, 2025) 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.

The study area is defined to ensure a comprehensive assessment of existing conditions on waterbodies in the vicinity of the Proposed Development. This area extends beyond the immediate boundaries of the site of the Proposed Development to include a broader region. The site refers specifically to the area where the Proposed Development will take place. In contrast, the study area encompasses a wider region, extending at least 2.0 km from the site, as recommended by the Institute of Geologists of Ireland (IGI) 2013 Guidelines. This broader 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 application 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 additional regions that might experience secondary effects.

4.1 Surface Water

The Proposed Development site lies within the Galway Bay South East WFD Catchment (Hydrometric Area 29), Carrowmoneash [Oranmore] WFD Sub-catchment (WFD name: Carrowmoneash [Oranmore]_SC_010 ID: 29_06) (EPA, 2025) and the Carrowmoneash [Oranmore]_10 WFD River Sub Basin (IE_WE_29C050400).

There are no surface water features within the site. The closest surface water features mapped by the EPA (EPA, 2025) within the 2km radius of the site are as follows:

- The Corrib Estuary Transitional Waterbody (ID: IE_WE_170_0700) is located adjacent to the southern and eastern boundaries of the site. The Corrib Estuary ultimately discharges into the Inner Galway Bay North Coastal Waterbody (ID: IE_WE_170_0000) located approximately 2.2km south of the site at its closest point.
- The River Corrib (WFD Name: CORRIB_020; River Waterbody Code: IE_WE_30C020600) is located approximately 0.58km west of the site at the point where it discharges into the Corrib Estuary.
- The Terryland River (WFD Name: TERRYLAND_010; River Waterbody Code: IE_WE_30T010500) is located approximately 1.2km north of the site. As detailed in the Galway City County Geological Site Report (GSI, 2020), the Terryland Stream originates from a narrow channel on the east side of Jordan's Island, just north of the ruins of Terryland Castle. Typically, the Terryland Stream flows eastward toward two estavelles north of the site. Under normal conditions, these estavelles receive water from the Terryland Stream. However, during periods of elevated groundwater levels, these estavelles undergo a transformation into springs, releasing groundwater into the Terryland Stream. This augmented flow eventually converges with the Corrib River approximately 1.16km northeast of the site. It is understood that these estavelles are connected to Galway Bay or Lough Atalia (i.e., the Corrib Estuary) through an underground conduit system (GSI, 2025).

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

Figure 4-1. Surface Water Features within 2km of the Proposed Development

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

Name (WFD)	EPA Code	Waterbody Type	WFD Status (2016 – 2021)[1]			WFD Risk Status
			Ecological	Chemical	Hydro-morphological	
Terryland_010	IE_WE_30T010500	River	Moderate (Note - High Confidence)	-	-	At Risk
Corrib_020	IE_WE_30C020600	River	Good (Note - High Confidence)	-	-	Not at Risk
Corrib Estuary Transitional Waterbody	IE_WE_170_0700	Transitional Waterbody	Moderate (Note - High Confidence)	Failing to Achieve Good	-	Review
Inner Galway Bay North Coastal Waterbody	IE_WE_170_0000	Coastal Waterbody	Good (Note - High Confidence)	-	-	Not at Risk
Inner Galway Bay South Coastal Waterbody	IE_WE_160_0000	Coastal Waterbody	High (Note – Medium Confidence)[2]	-	-	Not at Risk
Outer Galway Bay Coastal Waterbody	IE_WE_100_0000	Coastal Waterbody	High (Note – High Confidence)[2]	-	-	Not at Risk

Notes:

1. The 3rd cycle (2016–2021 monitoring) data was published in 2022 and forms the basis of the current River Basin Management Plan (RBMP) (2022–2027). The 4th cycle monitoring (2019–2024) is currently underway, with results expected to inform the next RBMP (2027–2033). The final national assessment for this cycle is expected to be published by the Environmental Protection Agency (EPA) in Q4-2025.
2. The protection and restoration of these high-status water bodies is a priority under Ireland's RBMP.

4.2 Groundwater

The bedrock aquifer within the Clarinbridge Formation (Code: CDLUCN) beneath the majority of the site is classified by the GSI (GSI, 2025) as a Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones.

A small portion of the site adjacent to Galway Bay has not been delineated by the EPA as being underlain with a bedrock aquifer, likely due to its nature as reclaimed lands.

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

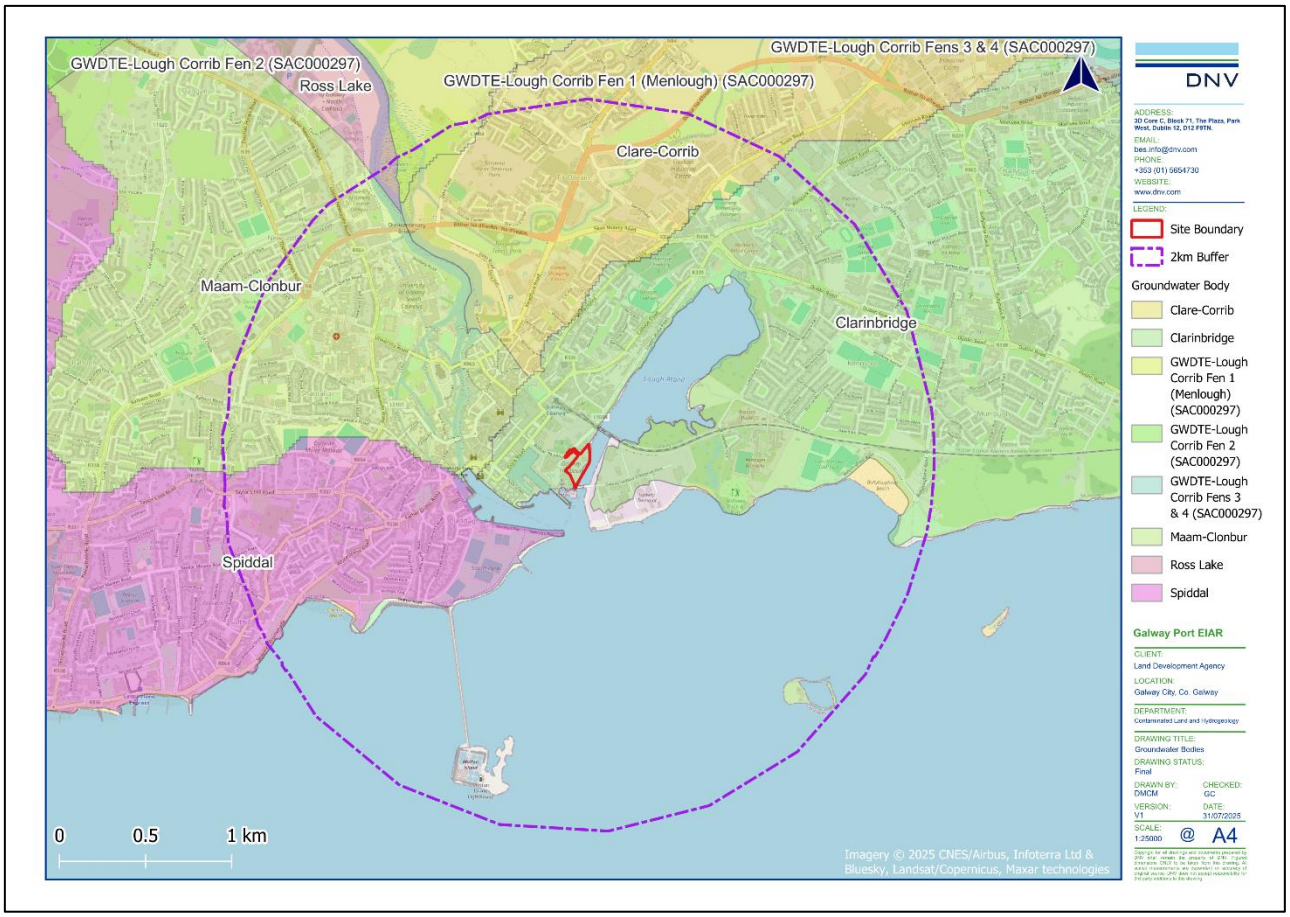

Figure 4-2: Groundwater Bodies within 2km of the Proposed Development

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

Name	EPA Code	Type	Status (2016 – 2021)[1]		WFD Risk Status
			Chemical	Quantitative	
Clarinbridge GWB	IE_WE_G_0008	Karstic	Good	Good	Not at Risk
Spiddal GWB	IE_WE_G_0004	Poorly productive bedrock	Good	Good	Not at Risk
Maam-Clonbur GWB	IE_WE_G_0006	Poorly productive bedrock	Good	Good	Not at Risk
Clare-Corrib GWB	IE_WE_G_0020	Karstic	Good	Good	Not at Risk
GWDTE-Lough Corrib Fen 1 (Menlough)	IE_WE_G_0119	Karstic	Good	Good	Not at Risk

Name	EPA Code	Type	Status (2016 – 2021)[1]		WFD Risk Status
			Chemical	Quantitative	
(SAC000297) GWB					

Notes:

1. The 3rd cycle (2016–2021 monitoring) data was published in 2022 and forms the basis of the current River Basin Management Plan (RBMP) (2022–2027). The 4th cycle monitoring (2019–2024) is currently underway, with results expected to inform the next RBMP (2027–2033). The final national assessment for this cycle is expected to be published by the Environmental Protection Agency (EPA) in Q4-2025.

Although the Proposed Development does not include groundwater abstraction, 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 screening assessment.

4.3 Flood Risk Assessment

A Stage 2 Flood Risk Assessment (FRA) was prepared for the site and Proposed Development by TOBIN (TOBIN, 2025). It assessed the potential flood risk associated with fluvial, groundwater, coastal and pluvial flooding.

The Western Catchment Flood Risk Assessment and Management (CFRAM) study (OPW, 2016) identified Galway City as an Area for Further Assessment (AFA) and concluded that a flood relief scheme would be viable and effective for the community. The Coirib go Cósta Galway City Flood Relief Scheme commenced in November 2020 to address the sustainable and effective management of flood risk in the city and will be completed by 2029. The objective of the scheme is to assess, design and deliver a viable, cost-effective, and environmentally sustainable flood relief scheme for Galway City and the subject site falls within the Scheme Area.

The OPW's National Preliminary Flood Risk Assessment (PFRA) mapping indicated that there are no fluvial, pluvial or groundwater flood extents within the Proposed Development site. However, the southwestern boundary of the site is seen as liable to coastal flooding. Hydraulic modelling (i.e., surveyed river geometry and greater model calibration) was carried out through the CFRAM study in 2015, which is considered more accurate than the PFRA study.

The site is located in the proximity to Galway Bay and the River Corrib, which is estuarine in nature, suggesting a heightened risk of coastal flooding. The National Coastal Flood Hazard Mapping (NCFHM) indicates that in a current scenario, approximately 25% of the southwestern portion of the site is inundated in a 1 in 1000-year (0.1% AEP) event, with a small area liable to coastal flooding in a 1 in 200-year (0.5% AEP) event. In the mid-range future scenario (MRFS), approximately 50% of the site is inundated in 1 in 200-year (0.5% AEP) event, and approximately 60% of the site is inundated in a 1 in 1000-year (0.1% AEP) event. A small area along the southeastern and southwestern boundary is liable to coastal flooding in the 1 in 10-year (10% AEP) event. The Irish Coastal Wave and Water Level Modelling Study (ICWWS) water levels in a 1 in 200- and 1 in 1000-year (0.5% and 0.1% AEP) MRFS event are 4.51 meters Ordnance Survey (mOD) and 4.76mOD, respectively. In order to protect the site against the 1 in 1000-year (0.1% AEP) MRFS flood event, which is required for critical infrastructure, the FFL (floor level) at the site is required to be at a minimum 5.05mOD to account for climate change and a freeboard of 300mm. Therefore, it is estimated that the risk of coastal flooding associated with the proposed development is minimal.

The report (TOBIN, 2025) concludes the following:

''The proposed development was subject to the Justification Test as the southwestern corner of the subject site was shown as flooding in the 1 in 1000-year coastal flood event by the NCFHM Study, with an even smaller area liable to flooding in the 1 in 200-year event, and as such was partially located in Flood Zone B and A respectively. The proposed development satisfied all criteria of the Justification Test".

'Based on the results of this flood risk assessment, it is estimated that the risk of flooding to the proposed development will be minimal, and that the development will not increase the risk of flooding elsewhere. There is an evident coastal risk at the southwestern portion of the subject site. We propose to mitigate the flood risk to "Highly vulnerable" infrastructure by raising the minimum FFL to 5.05mOD, this allows for a 300mm freeboard above the 1 in 1000-year (0.1% AEP) MRFS event', as stated above.

4.4 Register for 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 site).

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.

There are four (4 No.) Natura 2000 sites that are identified with a potential hydraulic connection to the site and Proposed Development. There are also one (1 No.) pNHAs identified with a potential hydraulic connection to the site and the Proposed Development. The Natura 2000 sites and other protected and designated sites or areas with a potential hydraulic connection to the site are summarised below. 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.

- Lough Corrib SAC (Site Code: 000297) – approximately 0.015km west of the site.
- Lough Corrib SPA (Site Code: 004042) – approximately 3.9km northwest of the site.
- Galway Bay Complex SAC (Site Code: 000268) – adjacent to site.
- Inner Galway Bay SPA (Site Code: 004031) – adjacent to site.

Other Natura 2000 Sites that are identified with a potential hydraulic connection to the Proposed Development but are located outside of the 15km buffer zone include:

- Black Head-Poulsallagh Complex SAC (Site Code: 000020).
- Inisheer Island SAC (Site Code: 001275).
- Inishmaan Island SAC (Site Code: 000212).
- Inishmore Island SAC (Site Code: 000213).
- Inishmore Island SPA (Site Code: 004152).
- Kilkieran Bay And Islands SAC (Site Code: 002111).

There are one (1No.) proposed NHA identified with a potential hydraulic connection to the Proposed Development:

- Galway Bay Complex (Site Code: 000268).

Other proposed NHAs that are identified with a potential hydraulic connection to the Proposed Development but are located outside of the 15km buffer zone include:

- Black Head-Poulsallagh Complex (Site Code: 000020).
- Inisheer Island (Site Code: 001275).
- Inishmaan Island (Site Code: 000212).
- Inishmore Island (Site Code: 000213).

Further details and assessment of the of the potential impacts of the Proposed Development on habitats, flora and fauna are included in Chapter 5 of the EIAR submitted with the planning application for the Proposed Development.

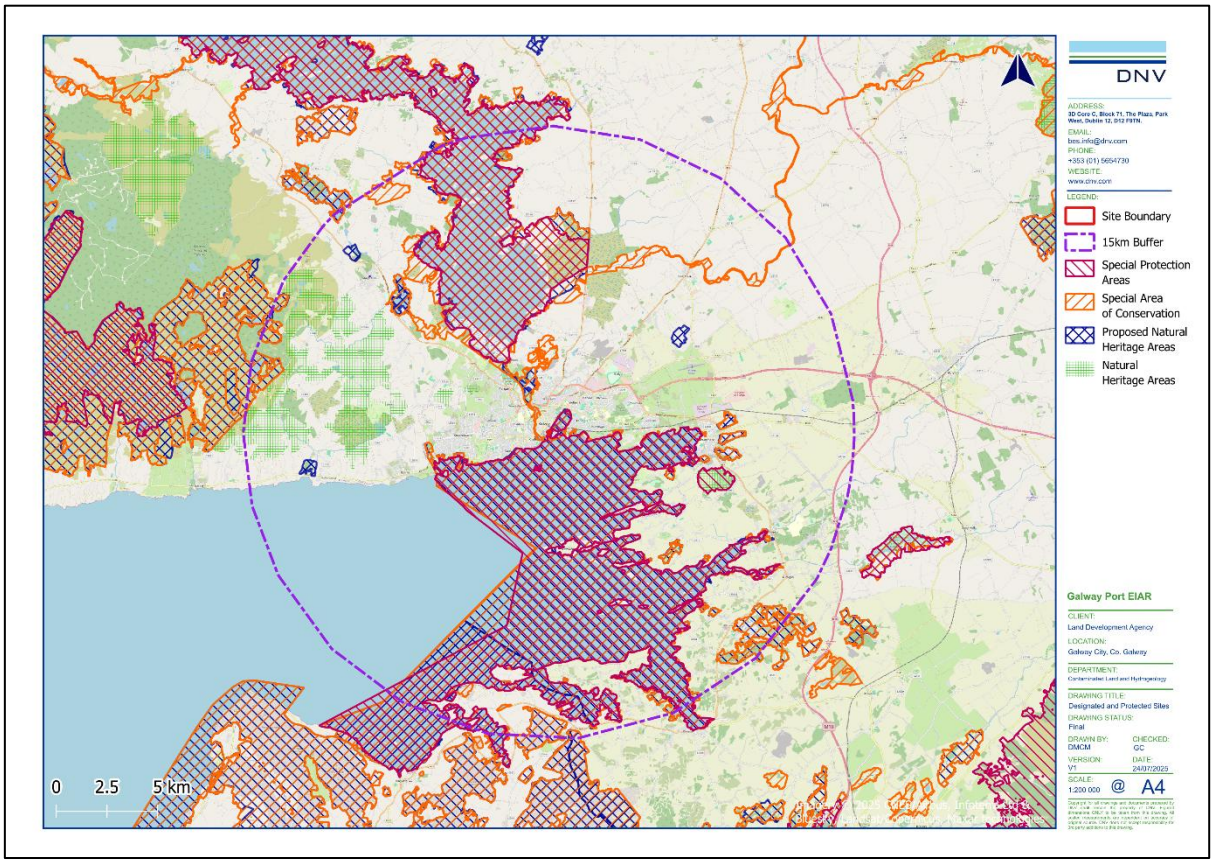

Figure 4-3. Designated and Protected Sites

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 (refer to section 4.6). However, the River Corrib (IE_WE_30C020600) 1.25km upstream of site and the groundwater body beneath the site, the Clarinbridge GWB (IE_WE_G_0008) are 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 Clarinbridge/Kinvara Bay (IE_WE_160_0000) located approximately 5.8km south 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 Lough Derg on the River Shannon (IELK_SH_1994_0007-Urban Wastewater Treatment Directive Sensitive Area) located approximately 53.9km southwest of the site at its closest point. In addition, the closest nutrient-sensitive area (rivers) is the Fergus (IERI_SH_2010_0003-Urban Wastewater Treatment Directive Sensitive Area) located approximately 47.5km south 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 Grattan Road Beach (IEWEBWT170_0700_0100), located approximately 1.5km southwest of the site. The Ballyloughane Beach (IEWEBWT170_0700_0200) bathing water area is located approximately 1.5km east of the site. There is a potential connection to those bathing water areas through the Corrib Estuary Transitional Waterbody.

5 STAGE 1 – SCREENING FOR POTENTIAL EFFECTS

This stage aims to determine if the Proposed Development has the potential to impact WFD waterbodies. It involves gathering relevant design information of the Proposed Development and the baseline environment of potentially impacted waterbodies. Where no potential for impacts to receiving waterbodies 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; and
- 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). 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
Terryland_010	IE_WE_30T010500	Screened Out	This surface waterbody is located approximately 1.2km north of the site. As detailed in the Galway City County Geological Site Report (GSI, 2020), the augmented flow originated during periods of elevated groundwater levels within the Terryland_010 river and eventually converges with the Corrib River approximately 1.16km northeast of the site. However, the Terryland_010 river is upstream of the site and separated from significant tidal interactions by a series of weirs along the Corrib River, notably the "Salmon Weir". Therefore, no pathway is present for potential effects on the Terryland Stream and it has been screened out of further assessment.
Corrib_020	IE_WE_30C020600	Screened In	Surface waterbody located approximately 0.58km north of the site at the point where it discharges into the Corrib Estuary. It is located upstream of the site and so unlikely to be affected by the construction and operation phases of the Proposed Development. There will be no works to be undertaken within the catchment of this waterbody and there are no proposed construction or operational activities that could potentially adversely affect the waterbody. However, given the proximity to the Corrib Estuary, it is potentially connected to the Estuary through tidal effect. Therefore, it has been screened in for further assessment.
Corrib Estuary Transitional Waterbody	IE_WE_170_0700	Screened In	This waterbody is located directly downstream of the Proposed Development, which has been screened in due to their proximity to the site (i.e. adjacent) and the fact that there is a hydraulic connection via the site and the Galway WWTP discharge. Furthermore, foul water from the Proposed Development will be discharged via the Galway WWTP to this waterbody and therefore, it has been screened in for further assessment.
Inner Galway Bay North Coastal Waterbody	IE_WE_170_0000	Screened In	Waterbody downstream of the Proposed Development which has been screened in based on its hydraulic connection with the Corrib Estuary and the Galway WWTP.
Inner Galway Bay South Coastal Waterbody	IE_WE_160_0000	Screened Out	There is an indirect connection to the site via the Inner Galway Bay North 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., Corrib Estuary and Inner Galway Bay North Coastal Waterbody), it is unlikely that construction and operational phase 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. Therefore, they have been screened out for further assessment.
Outer Galway Bay Coastal Waterbody	IE_WE_100_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 applicable waterbody or waterbodies.

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 Clarinbridge GWB (Karstic) underlying the site has been screened in. The Spiddal GWB (Poorly productive bedrock) was also screened in as it is downgradient of the Clarinbridge GWB. No other groundwater bodies (i.e. Maam-Clonbur GWB, Clare-Corrib GWB and GWDTE-Lough Corrib Fen 1 (Menlough) (SAC000297) GWB) identified in the vicinity of the site are considered to be sufficiently close or hydraulically 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
Clarinbridge GWB	IE_WE_G_0008	Screened In	There is a potential pathway (i.e., direct hydrogeological link) for the residual contamination present within the shallow soils to enter the Clarinbridge GWB beneath the site, during the construction phase of the Proposed Development, via groundwater flow, which could potentially degrade the water quality of the 'not at risk' GWB (Clarinbridge GWB) if unmitigated. Construction works will temporarily increase groundwater vulnerability and exposure during the excavation of soils and subsoils and chemical testing results have indicated that shallow groundwater has been impacted by contamination in isolated areas. Additionally, according to previous site investigations (RSK, 2009, MKO, 2019, MKO, 2022 and GII, 2014), shallow groundwater may be encountered during the excavations required to achieve the required formation levels for the site, including building foundations, surface water and foul water drainage, roads and all other associated infrastructure. Therefore, this groundwater body has been screened in for potential impacts on the Clarinbridge GWB.
Spiddal GWB	IE_WE_G_0004	Screened In	Any dewatering required, including the pumping of groundwater, where encountered in excavations, could alter the local groundwater flow regime and contaminant distribution within the subsurface. This GWB is located downgradient of the site and also adjacent to the Corrib Estuary transitional waterbody and therefore, it has been screened in for further assessment due to its connectivity with the site and the Clarinbridge GWB.
Maam-Clonbur GWB	IE_WE_G_0006	Screened Out	GWB located northwest of the main GWB (Clarinbridge GWB), and upgradient of the Proposed Development in terms of regional groundwater flow direction. Groundworks during the construction phase of the Proposed Development will not have the potential to adversely affect the status of this GWB if unmitigated.
Clare-Corrib GWB	IE_WE_G_0020	Screened Out	GWB located north of the site, and upgradient of the Proposed Development in terms of regional groundwater flow direction. Therefore, unlikely to be affected during the construction phase of the Proposed Development, as the site is discharging into the Corrib Estuary, which is within the Clarinbridge GWB. Therefore, there is no potential to adversely affect the status of this GWB.
GWDTE-Lough Corrib Fen 1 (Menlough) (SAC000297) GWB	IE_WE_G_0119	Screened Out	GWB located north of the Clare-Corrib GWB, and upgradient of the Proposed Development in terms of regional groundwater flow direction. Therefore, there is no potential to adversely affect the status of this GWB if unmitigated.

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; and
- 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 and Chapter 7 Hydrology and Hydrogeology of the Environmental Impact Assessment (EIAR) submitted with the planning application for the Proposed Development.

Although the Proposed Development does not directly interact with any designated protected areas, the potential for indirect effects via surface water or groundwater pathways cannot be ruled out at this stage (refer to section 5.5). Therefore, the screening process has taken into account the potential for the Proposed Development to influence the status or objectives of these protected areas. This includes consideration of the relevant River Basin Management Plans (RBMPs), the Water Action Plan 2024, and associated Programme of Measures (PoM), to ensure that the development does not conflict with national water protection objectives.

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; and
- 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; and

- Climate Adaptation Measures: Enhancing resilience to climate change by incorporating adaptive management strategies and investing in green infrastructure.

As part of the screening process, the WAP 2024 has been reviewed to identify any relevant pressures or planned measures that may intersect with the Proposed Development. The WAP outlines key pressures on water quality in Ireland, including nutrient pollution from agriculture, urban wastewater discharges, physical modifications to watercourses, and the effects of climate change. These pressures are particularly relevant given the rural and hydrologically setting of the Proposed Development.

The screening has also considered the WAP's proposed actions, such as improved nutrient management, restoration of natural hydromorphology, and enhanced wastewater treatment, all of which aim to support the achievement of WFD objectives. The presence of these pressures and the alignment of the Proposed Development with the WAP's objectives are important considerations in determining whether the Proposed Development could contribute to cumulative impacts or conflict with existing Programme of Measures (PoM).

5.5 Drinking Water Protected Areas and Natura 2000 Sites

In addition to the direct potential impacts of the Proposed Development, the presence of protected areas—including Drinking Water Protected Areas and Natura 2000 sites—within the wider hydrological catchment necessitates consideration of indirect effects. While these sites may not be located immediately adjacent to the development footprint, potential hydrological connectivity through surface or groundwater pathways could result in downstream impacts. As part of the screening process, the Water Action Plan 2024 and the relevant River Basin Management Plans (RBMPs) have been reviewed to ensure that the Proposed Development does not conflict with national water quality objectives or compromise the implementation of any Programme of Measures (PoM) established to protect or improve water body status.

6 STAGE 2 – SCOPING 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 EPA's 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 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 for further assessment.

7.1 Surface Waterbodies

7.1.1 Corrib_020 River

Table 7-1. Corrib River 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 this waterbody or its bank either during the construction or operational phases of the Proposed Development and there will be no direct discharges to or abstractions from surface water or groundwater at the Proposed Development and diversions of water courses are not required for the construction phase. However, excavations of soils and subsoils and stockpiling will be required as part of the construction phase of the Proposed Development which has the potential to mobilise the contamination present within the shallow soils (i.e., Made Ground) and suspended solids directly into the Corrib Estuary, potentially adversely affecting the hydromorphological quality of the Corrib River due to the tidal nature of the lower reaches of the waterbody. Nevertheless, given the separation distances and the fact that this waterbody is upgradient of the Proposed Development, it is envisaged that there will be no potential adverse effects to the hydromorphology quality of this waterbody (Corrib_020) during the construction and operational phases of the Proposed Development.	Mitigation measures required.
Biological quality	Yes	No	During the construction phase, there will be no direct discharges to or abstractions from surface water or groundwater at the Proposed Development and diversions of water courses are not required for the construction phase. However, surface runoff entering the open excavations could result in mobilisation of the identified hydrocarbon and other residual contamination in soil which has the potential to migrate directly into the Corrib Estuary and adversely affect the biological quality of the Corrib River due to its tidal nature. 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 the biological quality of this waterbody (i.e., Corrib River). No instream 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 biological quality.	Mitigation measures required.
Physico-Chemical quality	Yes	No	Surface water runoff entering the open excavations could result in mobilisation of the identified hydrocarbon and other residual contamination in the shallow soil which has the potential to migrate directly into the Corrib Estuary, as well as the release of suspended	Mitigation measures required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
			solids entrained in surface runoff from haul routes to / from the site and adversely affect the physico-chemical quality of the Corrib River given its tidal nature. During the operational phase, there is limited potential for discharge of contaminated runoff to receiving water courses and no instream 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	Yes	No	An Appropriate Assessment (AA) was conducted to assess potential direct and indirect effects of the proposed works, during the Construction Phase, on the integrity and qualifying interests of the European Sites. It was concluded that the possibility of any significant effects on the listed European sites below, whether arising from the Proposed Development itself or in combination with other plans and projects, could not be excluded in light of the European sites' conservation objectives. Therefore, a Natura Impact Statement (NIS) (submitted with the planning application under separate cover) detailing the findings of the Stage 2 Appropriate Assessment was conducted to further examine the potential direct and indirect impacts of the construction and operational phases of the Proposed Development on the following European sites: • Lough Corrib SAC (Site Code: 000297) • Lough Corrib SPA (Site Code: 004042) • Galway Bay Complex SAC (Site Code: 000268) • Inner Galway Bay SPA (Site Code: 004031) The NIS concluded that, once the avoidance and mitigation measures are implemented as proposed, the Proposed Development will not have an adverse effect on the integrity of the above European sites, individually or in combination with other plans and projects. Therefore, the Proposed Development will not adversely affect the integrity of any relevant European sites. Furthermore, there is no potential for significant effects during the operation phase of the Proposed Development. Refer to Chapter 5 (Biodiversity) of the EIAR and NIS submitted as separate cover with the planning application.	Mitigation measures required.

7.2 Transitional Waterbodies

7.2.1 Corrib Estuary

Table 7-2. Corrib 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 this waterbody or its bank either during the construction or operational phases of the Proposed Development and there will be no direct discharges to or abstractions from surface water or groundwater at the Proposed Development and diversions of water courses are not required for the construction phase. However, excavations of soils and subsoils and stockpiling will be required as part of the construction phase of the Proposed Development which has the potential to mobilise the contamination present within the shallow soils (i.e., Made Ground) and suspended solids directly into the Corrib Estuary and adversely affect the hydromorphological quality of this receiving waterbody. No works along banks are proposed during the operational phase of the Proposed Development. Therefore, there will be no potential adverse effects to the hydromorphology quality of this transitional waterbody	Mitigation measures required.
Biological quality	Yes	No	During the construction phase, there will be no direct discharges to or abstractions from surface water or groundwater at the Proposed Development and diversions of water courses are not required for the construction phase. However, surface runoff entering the open excavations could result in mobilisation of the identified hydrocarbon and other residual contamination in soil which has the potential to migrate directly into the Corrib 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. During the operational phase, there is no potential for discharge of contaminated runoff to receiving water courses. Surface water runoff from the Proposed Development will be managed in accordance with the principles and objectives of SuDS, treated, and attenuated before discharging to the Corrib Estuary transitional waterbody. No works along banks are proposed during the operational phase of the Proposed Development, so there will be no potential for effects to biological quality as a result.	Mitigation measures required.
Physico-Chemical quality	Yes	No	There will be no direct discharge to groundwater or surface water during the construction phase of the Proposed Development. However, in the event of a rainfall event, surface runoff entering the open excavations could result in mobilisation of the identified	Mitigation measures required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
			hydrocarbon and other residual contamination in the shallow soil which has the potential to migrate directly into the Corrib Estuary and adversely affect the physico-chemical quality of this receiving waterbody. Additionally, the release of suspended solids entrained in surface runoff from haul routes to / from the site or other contaminants from groundworks areas and stockpiled soils could potentially enter offsite road gullies before discharging to the Corrib Estuary, which have the potential to also adversely affect the physico-chemical quality of this receiving waterbody. The groundwater vulnerability will temporarily be increased during the construction phase. Construction activities will include the use of potentially hazardous materials including cementitious materials, fuels and oils and other materials. A potential uncontrolled release of materials could result in for example through the failure of secondary containment or a materials handling accident could also result in this receiving waterbody being adversely affected (physico-chemical quality). During the operational phase, there is no potential for discharge of contaminated runoff to receiving water courses. Surface water runoff from the Proposed Development will be managed in accordance with the principles and objectives of SuDS, treated, and attenuated before discharging to the Corrib Estuary transitional 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.	
Protected Sites	Yes	No	An Appropriate Assessment (AA) or screening exercise was conducted to assess potential direct and indirect effects of the proposed works, during the Construction Phase, on the integrity and qualifying interests of the European Sites. It was concluded that the possibility of any significant effects on the listed European sites below, whether arising from the Proposed Development itself or in combination with other plans and projects, could not be excluded in light of the European sites' conservation objectives. Therefore, a Natura Impact Statement (NIS) (submitted with the planning application under separate cover) detailing the findings of the Stage 2 Appropriate Assessment was conducted to further examine the potential direct and indirect impacts of the construction and operational phases of the Proposed Development on the following European sites: • Lough Corrib SAC (Site Code: 000297) • Lough Corrib SPA (Site Code: 004042) • Galway Bay Complex SAC (Site Code: 000268) • Inner Galway Bay SPA (Site Code: 004031) The NIS concluded that, once the avoidance and mitigation measures are implemented as proposed, the Proposed Development will not have an adverse effect on the integrity	Mitigation measures required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
			of the above European sites, individually or in combination with other plans and projects. Therefore, it was concluded that the Proposed Development will not adversely affect the integrity of any relevant European sites. Furthermore, there is no potential for significant effects during the operation phase of the Proposed Development. Refer to Chapter 5 (Biodiversity) of the EIAR and NIS submitted with the planning application.	

7.3 Coastal Waterbodies

7.3.1 Inner Galway Bay North Coastal Waterbody

Table 7-3. Inner Galway Bay North Coastal Waterbody Impact Assessment

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Hydromorphology quality	No	No	No works are proposed in or adjacent to the Inner Galway Bay North Coastal Waterbody. As such, it is considered that there is no potential for the Proposed Development to adversely affect hydromorphological status of receiving coastal waterbody.	None required.
Biological quality	No	No	No works are proposed in or near the Inner Galway Bay North Coastal Waterbody. Any works required within connected waterbodies are of a scale and nature as to have no potential to adversely effect the Biological quality of the coastal waterbody.	None required.
Physico-Chemical quality	No	No	Excavations of soils and subsoils could result in mobilisation of the identified hydrocarbon and other residual contamination in the shallow soil which has the potential to migrate directly into the Corrib Estuary and adversely affect the physico-chemical quality of this receiving waterbody, the Inner Galway Bay North. The release of suspended solids entrained in surface runoff from haul routes to / from the site or other contaminants from groundworks areas and stockpiled soils could potentially enter offsite road gullies before discharging to the Corrib Estuary, which has the potential to also adversely affect the physico-chemical quality of this receiving waterbody (i.e., Inner Galway Bay North). 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. Therefore, there will be no potential for adverse effects on the physico-chemical quality of this waterbody during the construction phase of the Proposed Development. Furthermore, there are no direct discharges from the Proposed Development to this waterbody, although an indirect connection exists through the Corrib Estuary waterbody and the Galway WWTP. However, it is considered that any effects associated with normal operational discharges of foul water to the Galway 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 potential for adverse effects on Physico-Chemical quality during either the construction or operational phase of the Proposed Development.	None required.
Protected Sites	Yes	No	An Appropriate Assessment (AA) or screening exercise was conducted to assess potential direct and indirect effects of the proposed works, during the Construction Phase, on the integrity and qualifying interests of the European Sites. It was concluded that the possibility of any significant effects on the listed European sites below, whether arising from the Proposed Development itself or in combination with other plans and projects,	Mitigation measures required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
			could not be excluded in light of the European sites' conservation objectives. Therefore, a Natura Impact Statement (NIS) (submitted with the planning application under separate cover) detailing the findings of the Stage 2 Appropriate Assessment was conducted to further examine the potential direct and indirect impacts of the construction and operational phases of the Proposed Development on the following European sites: • Lough Corrib SAC (Site Code: 000297) • Lough Corrib SPA (Site Code: 004042) • Galway Bay Complex SAC (Site Code: 000268) • Inner Galway Bay SPA (Site Code: 004031) The NIS concluded that, once the avoidance and mitigation measures are implemented as proposed, the Proposed Development will not have an adverse effect on the integrity of the above European sites, individually or in combination with other plans and projects. Therefore, it was concluded that the Proposed Development will not adversely affect the integrity of any relevant European sites. Furthermore, there is no potential for significant effects during the operation phase of the Proposed Development. Refer to Chapter 5 (Biodiversity) of the EIAR and NIS submitted with the planning application.	

7.4 Groundwater Bodies

7.4.1 Clarinbridge GWB

Table 7-4. Clarinbridge GWB Impact Assessment

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Chemical quality	Yes	No	There will be no direct discharge to groundwater or surface water during the construction phase of the Proposed Development. Surface runoff will be managed during construction and there will be no unauthorised discharges of water from the site. However, in the event of a rainfall event, surface runoff entering the open excavations could result in mobilisation of the identified hydrocarbon and other residual contamination in soil which has the potential to migrate downwards to groundwater beneath the site. In addition, if existing monitoring wells are inadvertently damaged, there could be a potential for migration of surface runoff or other sources to migrate directly to groundwater which has the potential to adversely impact on the groundwater quality beneath the site and associated downstream receptors. Construction activities will include the use of potentially hazardous materials, including cementitious materials, fuels and oils and other materials. A potential uncontrolled release of materials could result from the failure of secondary containment, or a materials handling accident could also result in a potential effect on the receiving environment (i.e., underlying Clarinbridge GWB) which has the potential to adversely affect the chemical quality of this receiving waterbody. Any dewatering required, including the pumping of groundwater, where encountered in excavations, could alter the local groundwater flow regime and contaminant distribution within the subsurface (i.e., groundwater quality beneath the site). Proper mitigation measures during the construction phase will reduce the risk posed to the groundwater body chemical status to an acceptable level. 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, it is considered that there will be no potential for adverse effects to chemical quality during the operational phase.	Mitigation measures required.
Quantitative quality	No	No	As reported in the previous site investigation reports, there is a layer of Made Ground across the site. To accommodate the Proposed Development, Made Ground, soils and subsoils will be excavated and removed offsite for disposal. The change in cover may result in change in the infiltration patterns due to the incorporation of the SuDS elements within the surface water drainage network, which will encourage continued groundwater recharge. However, as the bedrock aquifer beneath the site is a poor aquifer (bedrock which is generally unproductive except for local zones), the potential for infiltration and recharge may be limited. Therefore, it is considered that there will be little to no change to the overall recharge potential to the aquifer in the	None required.

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
			Clarinbridge GWB. Additionally, during the operational phase there will be no discharges to groundwater or abstraction of groundwater as part of the Proposed Development. Therefore, in general it is considered that there exists limited potential for adverse effects to Groundwater quantitative quality during the construction or operational phase.	

7.4.2 Spiddal GWB

Table 7-5. Spiddal GWB Impact Assessment

Receptor	Potential Impact (Construction)	Potential Impact (Operation)	Potential Impact of Proposed Development	Mitigation Required?
Chemical quality	No	No	There will be no direct discharge to groundwater or surface water during the construction phase of the Proposed Development. Any potential contamination arising from the Proposed Development (i.e., surface runoff entering the open excavations, damaged existing monitoring wells, use of fuels and oils, failure of secondary containment, removal of made ground, soil and subsoils, stockpiling, etc.) has the potential to migrate directly downwards to the Clarinbridge GWB beneath the site, which has the potential to adversely impact on the groundwater quality beneath the site and associated downstream receptors (i.e., Spiddal GWB). However, due to the poor aquifer nature of the bedrock aquifer beneath both GWBs, and the potential attenuation of contaminants within the groundwater, it is unlikely that the chemical quality of the Spiddal GWB will be adversely affected by the Proposed Development. Any dewatering required, including the pumping of groundwater, where encountered in excavations, at the Proposed Development could alter the local groundwater flow regime and contaminant distribution within the subsurface (i.e., groundwater quality beneath the site). However, this could only affect a small area of the aquifer and will be highly localised. Therefore, it is unlikely that the chemical quality of the Spiddal GWB will be affected by the Proposed Development. In general, it is considered that there will be no potential for adverse effects on the chemical quality of this GWB during the construction or operational phases of the Proposed Development.	None required.
Quantitative quality	No	No	The change in land cover at the Proposed Development which may result in a change in the infiltration patterns due to the incorporation of the SuDS elements within the surface water drainage network, and which will encourage continued groundwater recharge is unlikely to adversely affect the quantitative quality of the Spiddal GWB. Therefore, it is considered that there will be no potential for adverse effects on the chemical quality of this GWB during the construction or operational phases of the Proposed Development.	None required.

8 DESIGN AVOIDANCE AND MITIGATION

The measures outlined in this section of the report will ensure that there will be no potential for adverse effects on waterbody status. 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.

Incorporated Design Mitigations:

The excavation of Made Ground soils impacted with anthropogenic contamination and permanent removal off-site is a design requirement of the Proposed Development. As part of incorporated design measures for the Proposed Development in-situ soil validation samples will be collected to ensure that residual contamination in soil has been removed offsite.
In accordance with current UKWIR16 guidance, the design for the proposed development will include the use of barrier pipes for water supply in certain areas of the site to prevent potential permeation of contaminants into drinking water supplies. Barrier pipe is a reinforced pipe used to protect water supplies from certain contaminants present in the soil, which can permeate or degrade standard MDPE (medium-density polyethylene) pipes and compromise water quality.
The design and specification of the concrete will be undertaken by a suitably qualified engineer during the detailed design stage.
The site is located in the proximity to Galway Bay and the River Corrib, which is estuarine in nature, suggesting a heightened risk of coastal flooding. As documented in Stage 2 FRA (TOBIN, 2025), in order to protect the site against the 1 in 1000-year (0.1% AEP) MRFS flood event, which is required for critical infrastructure, the FFL (floor level) at the site is required to be at a minimum 5.05mOD to account for climate change and a freeboard of 300mm.

8.1 Construction Phase

During the construction phase, all works will be undertaken in accordance with the Construction Environmental Management Plan (CEMP) (DNV, 2025) and the Resource and Waste Management Plan (RWMP) (AWN, 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 full mitigation measures proposed for the Proposed Development.

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

- Control and management of contaminated soil;
- Control and management of surface water runoff;
- Control and management of water including potentially contaminated groundwater and management of dewatering activities;
- Piling;
- Borehole decommissioning;
- Control and handling of cementitious materials;
- Appropriate fuel and chemical handling, transport and storage;
- Management of accidental release of contaminants at the site;
- Flooding; and
- Welfare facilities.

Contaminated soil will be encountered during groundworks at the site (refer to Chapter 6 of the EIAR for further details). It is anticipated that the majority of contaminated soils will be excavated during bulk excavations for the Proposed Development. Nevertheless, as part of incorporated design measures for the Proposed Development in-situ soil validation samples will be collected to ensure that residual contamination in soil has been removed offsite. The removal of the residual soil source will be undertaken under supervision of the Project Environmental Consultant and validated in accordance with relevant guidelines including EPA 'Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites' (EPA, 2013a) and guidance and standards current at the time of construction works to ensure that a 'clean edge' is reached in the area of excavation.

The removal of localised hotspots should be undertaken prior to the bulk excavation works for the construction of building foundations, utility infrastructure and other works to reduce the potential risks associated with exposure of soils to rainfall or surface runoff and leaching to groundwater.

Where possible, stockpiling of soils and subsoils onsite will be avoided. However, in the event that stockpiling is required, stockpiled materials, pending reuse onsite, where required, will be located away from the location of any sensitive receptors (watercourses and drains). In accordance with Inland Fisheries Ireland guidelines (*Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters, 2016)*, stockpiles will not be allowed within 50m of the open water where sufficient working areas are available within the site boundary.

- Surface water from the surrounding areas will be prevented from draining into the open excavations onsite during construction works through the use of temporary bunds / sandbags around excavation areas to provide diversion of surface water away from excavations. A 10m buffer zone will be established around any open drainage courses and road gullies during construction works and other methods such as bunding implemented where appropriate to ensure that all watercourses or drainage gullies are appropriately isolated;
- 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 (DNV, 2025) and regulatory consents to minimise the potential impact on the local groundwater flow regime within the underlying aquifer and surface water bodies; and
- Unauthorised discharge of water (groundwater / surface water runoff) to ground, drains or watercourses will not be permitted. The appointed Contractor will ensure that the discharge of water to ground, drains or watercourses will be in accordance with the necessary discharge licences issued by UÉ under Section 16 of the Local Government (Water Pollution) Acts and Regulations for any water discharges to sewer or from Galway City Council under Section 4 of the Local Government (Water Pollution) Act 1977, as amended in 1990 for discharges to surface water.

Shallow groundwater may be encountered during excavations required to achieve the required formation levels for the site including building foundations, surface water and foul water drainage, roads and all other associated infrastructure. Groundwater control is likely to be achieved within shallow excavations within the Made Ground by adopting a sump and pump system around the perimeter of the excavation (MKO 2022).

The results of chemical testing indicate that shallow groundwater has been impacted by contamination in isolated locations. Where water must be pumped from the excavations, water will be managed through robust dewatering methodologies in accordance industry best practice standards (i.e., CIRIA – C750) that will be designed by the contractor to minimise the potential impact on the local groundwater flow regime.

- Dewatering must be carried out in cells or localised work areas and larger scale dewatering of the entire site must be avoided to prevent an extensive groundwater drawdown across the site and potential mobilisation of contaminants present in localised areas beneath the site and / or outside of the site boundary;
- The current groundwater flow regime must not be altered to ensure any risk of increasing the distribution of contaminants within the groundwater beneath the site; and
- Monitoring of groundwater levels and contaminant concentrations around the periphery of the works area will be required as part of the groundwater management.

There will be no authorised discharge of water to ground during the construction phase. Where dewatering of shallow groundwater is required or where surface water runoff must be pumped from the excavations, water will be discharged by the contractor to sewer in accordance with the necessary discharge licences issued by UÉ under Section 16 of the Local Government (Water Pollution) Acts and Regulations for any water discharges to sewer or from FCC under Section 4 of the Local Government (Water Pollution) Act 1977, as amended in 1990 for discharges to surface water. To facilitate this, a temporary water treatment facility, including holding tanks and other necessary apparatus (such as activated carbon filtration and silt busters), will be constructed onsite. This facility will ensure compliance with the conditions of the temporary discharge consent. Water will be treated and pumped to a holding area, where it will be sampled and tested by the contractor before discharge. Upon receiving analysis results and screening against required consent limits, the contractor will arrange for appropriate disposal. Groundwater will be treated and discharged to sewer in accordance with the temporary discharge consent.

Untreated wastewater generated onsite (from equipment washing, road sweeping etc.) will not be released offsite. Where required, all public sewers will be protected using appropriate measures (e.g. sand bags, drain covers, silt socks, filter booms) to prevent the discharge of any untreated wastewater into the public sewer system.

Given the presence of contamination (i.e., hydrocarbons, PAHs, heavy metals, cyanide) in soil and groundwater beneath the site, a piling risk assessment willbe completed by the appointed Contractor at detailed design stage and in advance of construction works commencing onsite. The piling methodology will refer to the Environment Agency's (EA) guidance on 'Piling into Contaminated Sites' (EA, 2002) and 'Piling and Penetrative Ground

Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention' (EA, 2001), (or similar best practice) in order to minimise the potential for the introduction of any temporary conduit between any potential sources of contamination at the ground surface, made ground and underlying groundwater. The piling method will also include procedures to ensure any potential impact to water quality is prevented including preventing surface runoff or other piling/drilling fluids from entering the pile bores and surrounding formation. Where there is a requirement to use lubricants, drilling fluids or additives the contractor will use water-based, biodegradable, and non-hazardous compounds under controlled conditions.

Existing groundwater monitoring wells at the site that are no longer required will be decommissioned in advance of construction works commencing. This work will be undertaken prior to the bulk excavation works for the construction of building foundations, utility infrastructure and other works to remove any direct conduit or pathway from ground surface for any contaminants to enter groundwater beneath the site.

Prior to commencing the demolition works, all wells must be inspected. The proposed schedule of wells to be decommissioned will be identified by the appointed Contractor in advance of construction works commencing onsite.

Monitoring wells within the site to be retained during the construction phase of the Proposed Development will be protected to ensure that the well head is not damaged during works. Any required wells that will unavoidably be removed during construction works will be decommissioned and replaced with a new monitoring well.

Decommissioning of wells will be undertaken in strict accordance with current best-practice at the time of decommissioning and at a minimum the specifications outlined in EPA Advice Note 14 (EPA, 2013b). This will remove any potential direct conduit for contaminants to enter the groundwater directly and potentially migrate offsite.

Any wells to be retained must be appropriately protected from damage during construction works using precast concrete rings, steel road plates or permanent metal bollards to protect them from damage throughout the works. Clear legible signage must be maintained, and daily inspection of the integrity of wells and protection measures completed.

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. Remedial action will be immediately implemented to address any potential effects in accordance with industry standards and legislative requirements, which will ensure minimal risk to the receiving hydrological and hydrogeological environment associated with the construction phase of the Proposed Development. The following mitigation measures will be adhered to as follows:

- Any required emergency vehicle or equipment maintenance work will take place in a designated impermeable area within the Proposed Development 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 offsite in accordance with the RWMP (AWN, 2025) and all relevant waste management regulations. 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 site staff (i.e., construction staff) will be briefed as part of site inductions/toolbox talks and will be familiar with the emergency procedures in the event of accidental fuel spillages; and
- All construction works staff onsite will be fully trained on the use of equipment.

This procedure will be undertaken in accordance with industry best practice procedures and standards. These measures will ensure that there is minimal risk to the receiving land, soil and geology associated with the construction stage of the Proposed Development

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 be discharged to temporary holding tank(s) the contents of which will periodically be tankered offsite to a licensed facility. All waste from welfare facilities will be managed in accordance with the relevant statutory obligations by an appropriately authorised contractor.

Any connection to the public foul drainage network during the construction phase of the Proposed Development will be undertaken in accordance with the necessary temporary discharge licences issued by Uisce Eireann (UÉ).

8.2 Operational Phase

As discussed below, based on the design of the Proposed Development there are limited potential sources of contamination during the operational phase. There will be no risk to water quality including groundwater and surface water associated with the operational phase of the Proposed Development. It is considered that the design of the Proposed Development is in line with the objectives of the Water Framework Directive (2000/60/EC), as amended (WFD) to prevent or limit any potential impact on water quality.

The design of the Proposed Development includes the excavation and removal of made ground soils impacted with anthropogenic contamination. In addition, as part of incorporated design measures for the Proposed Development in-situ soil validation samples will be collected to ensure that residual contamination in soil has been removed offsite.

There will be no requirement for bulk storage of petroleum hydrocarbon-based fuels during the operational phase, as the main operating systems for heating will be either communal (centralised) heat pump solution which delivers better energy performance or Exhaust Air Heat Pump (EAHP) solution thereby removing any potential contaminant sources associated with fuels.

There will be no discharges to ground from drainage and only rainfall on public / communal open spaces will infiltrate to ground. All drainage from paved areas along roads and impermeable roads will be collected and managed within the surface water drainage and SuDS solutions as outlined in the Civil Works Design Report (Tobin, 2025).

The surface water management strategy (section 3.2.1) includes a number of measures that will capture any potentially contaminating compounds (hydrocarbons, metals, and suspended sediments) in surface water runoff from the higher risk areas including roads and the impermeable areas that could potentially otherwise discharge to groundwater or receiving water courses in the vicinity of the site. The measures incorporated in the SuDS design include a combination of water butts, rain gardens, swales, tree pits, permeable paving, and drainage kerbs with infiltration trenches/filter strips. The SuDS measures implemented will be effective in the treatment and removal of any contaminants (metals, hydrocarbons and suspended solids) entrained in surface water runoff. The effectiveness of these SuDS measures is documented in TII guidance (TII, 2014). Furthermore, prior to discharging from the site, water will pass through a Bypass Separator that will be effective in removal of hydrocarbons that may enter the drainage system in particular in the event of worst-case scenario spill incident (e.g., collision on the roadway resulting in the loss of fuel from a vehicle).

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 impacts on water quality and quantity (flow regime) during the operational phase of the Proposed Development.

Accordingly, any potential impact on receiving surface water and groundwater beneath the Proposed Development site will be avoided taking account of the design proposals. Therefore, it is considered that the water quality protection criteria and objectives of the GDSDS and Water Framework Directive will be achieved.

There is no other requirement for mitigation measures for the operational phase of the Proposed Development.

8.3 Residual Risk to Waterbody Status

The effects of the design avoidance and mitigation measures have been assessed and summarised in Table 8-1, which provides a summary of the predicted or potential status changes associated with the Proposed Development, with and without mitigation. In all cases, the proposed mitigation measures are sufficient to meet the WFD objectives. The Proposed Development will not cause any deterioration, and all mitigation measures will ensure compliance with the Directive's objective to maintain or improve water quality. 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 Status (2016-2021)[1]	Current WFD Risk	Potential Unmitigated Status Change	Potential Mitigated Status Change
Construction Phase					
Surface Waterbody					
Corrib River	IE_WE_30C020600	Good	Not at Risk	Moderate	Good
Transitional waterbody					

Name	EPA Code	Current Status (2016-2021)[1]	Current WFD Risk	Potential Unmitigated Status Change	Potential Mitigated Status Change
Corrib Estuary	IE_WE_170_0700	Moderate	Review	Poor	Moderate
Coastal waterbody					
Inner Galway Bay North	IE_WE_170_0000	Good	Not at Risk	Good	Good
Groundwater Waterbody					
Clarinbridge GWB	IE_WE_G_0008	Good	Not at Risk	Poor	Good
Spiddal GWB	IE_WE_G_0004	Good	Not at Risk	Poor	Good
Operational Phase					
Surface Waterbody					
Corrib River	IE_WE_30C020600	Good	Not at Risk	Good	Good
Transitional waterbody					
Corrib Estuary	IE_WE_170_0700	Moderate	Review	Poor	Moderate
Coastal waterbody					
Inner Galway Bay North	IE_WE_170_0000	Good	Not at Risk	Good	Good
Groundwater Waterbody					
Clarinbridge	IE_EA_G_025	Good	Not at Risk	Poor	Good
Spiddal GWB	IE_WE_G_0004	Good	Not at Risk	Good	Good

Note:

1. The 3rd cycle (2016–2021 monitoring) data was published in 2022 and forms the basis of the current River Basin Management Plan (RBMP) (2022–2027). The 4th cycle monitoring (2019–2024) is currently underway, with results expected to inform the next RBMP (2027–2033). The final national assessment for this cycle is expected to be published by the Environmental Protection Agency (EPA) in Q4-2025.

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.

To ensure a robust and transparent assessment, the following selection criteria were applied to identify projects with the potential to contribute to cumulative effects:

The following selection criteria has been applied when identifying schemes with the potential to cause likely cumulative effects.

1. Status of the Projects:
    - Existing: Projects that have been granted planning permission and are being constructed;
    - Approved: Projects that have been granted planning permission but not yet built; and
    - Reasonably Foreseeable: Projects that have been applied for but are not yet consented (adopting a more precautionary "reasonably foreseeable" approach).
2. Proximity to the Proposed Development:
    - All projects adjacent or within 100m of the Proposed Development, regardless of if size or use.
3. Scale of Development:
    - Projects that are EIAR developments or projects that exceed the following thresholds:
        - Residential: Developments comprising more than 150 residential units;
        - non-residential commercial projects over 10,000 square metres of floor space; and
        - Infrastructure developments (roads, flood defences) over 1km distance.
4. Wider Area Consideration
    - Projects meeting the criteria outlined in Point 3 and located within a 2km radius of the Proposed Development site.

Based on these criteria, a number of cumulative schemes were identified and are listed in Table 8-2. These include large-scale residential and mixed-use developments, strategic infrastructure projects, and hotel developments in close proximity to the Proposed Development.

Table 8-2 List of Cumulative Schemes

Application Reg. Ref.	Address	Development Proposed	Decision Date
GCC Reg. Ref. 2460108 (ABP/ACP Ref. 320100)	Corner of Lough Atalia Road and Bóthar na Long, Galway, H91 HY45	The development will include demolition of a vacant industrial structure (115 sq m), the external canopy structure (170 sq m) and the boundary walls along the southern, western and north-western boundaries of the site; and the construction of a 15 No. storey hotel (including part mezzanine at ground floor level) providing 189 No. bedrooms (7,514 sq m), incorporating food and beverage areas and provision of a single storey service building to the northwest of the site on a 0.2217 Ha site.	
GCC Reg. Ref. 20/47 (ABP/ACP Ref. 310568-21)	Lands to the rear of Ceannt Train Station, Station Road, Galway City	Large-scale, mixed-use development consisting of 376 no. apartments, retail units, café/restaurant/bar units, hotel, office use, childcare facility, car parking and other services and associated site works.	
ABP/ACP Ref. PA0033	Renmore and Townparks Townlands, Galway	Galway Harbour Extension	Currently awaiting final decision. Decision anticipated by the end of 2025.
ABP- 314597-22 Galway City Council	University Road to Dublin Road, Galway City	BusConnects Galway Cross-City Link Scheme	Grant Permission 27/09/2024

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 Clarinbridge GWB, and receiving waterbodies including the Corrib Estuary Transitional Waterbody, and the Inner Galway Bay North Coastal Waterbody.

The mitigation measures as outline 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.

There will be no impact to the existing WFD status of waterbodies associated with the Proposed Development including the Clarinbridge GWB, Corrib 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 Proposed 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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