Pope's Hill

Residential Development

Screening Report for Appropriate Assessment

DEC Ltd.

April 2026

Screening Report for Appropriate Assessment

Pope's Hill Residential Development

Cork

Document Stage	Prepared by
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Table of Contents

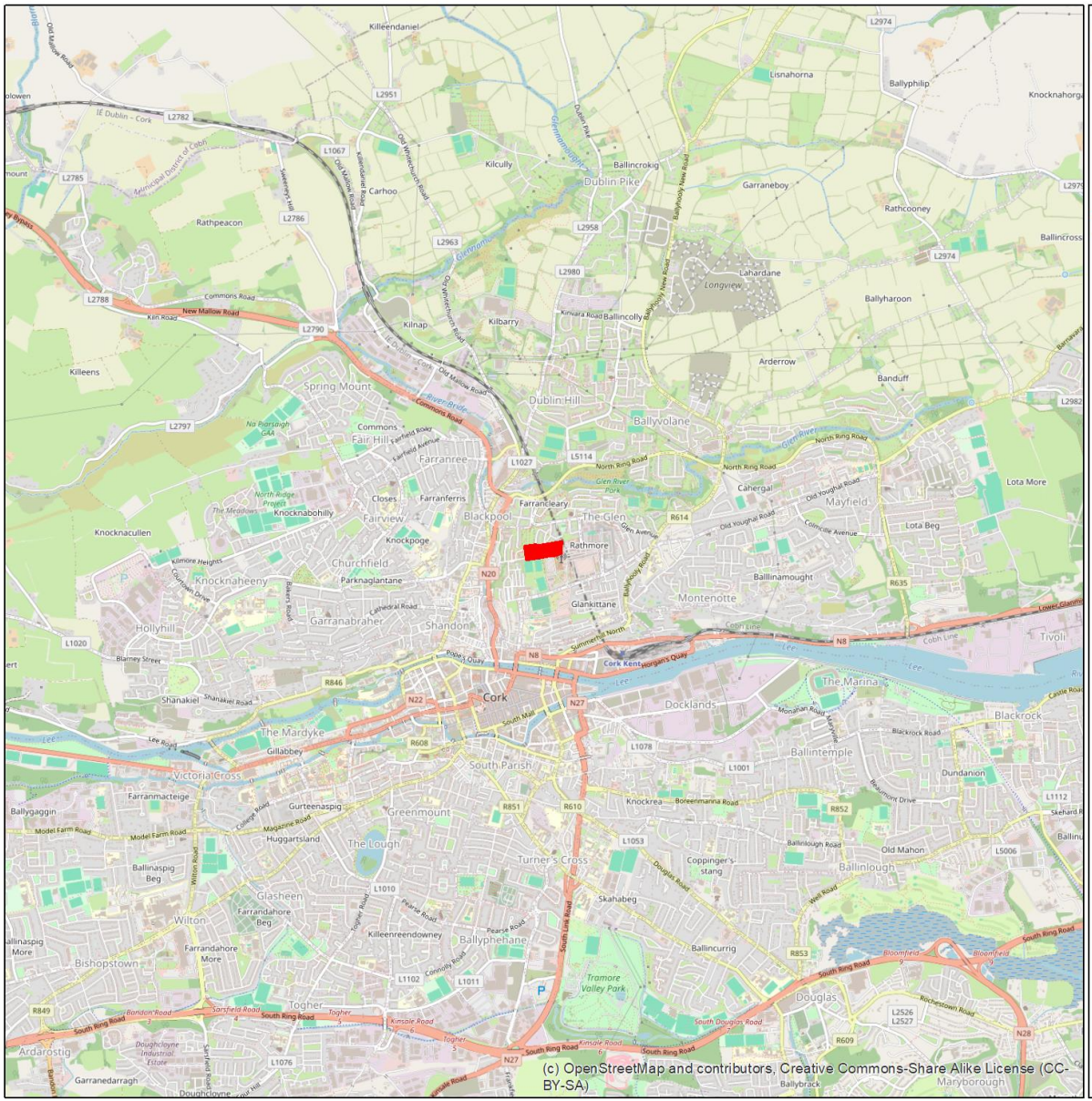
1.0 INTRODUCTION

Doherty Environmental Consultants (DEC) Ltd. have been commissioned by Pontorac Limited to undertake a Screening for Appropriate Assessment for a proposed residential development at Pope's Hill, Cork (see Figure 1.1 for the location of project site).

This Screening Report for Appropriate Assessment forms Stage 1 of the Habitats Directive Assessment process and is being undertaken in order to inform the competent authority's assessment under Article 6(3) of the Habitats Directive 92/43/EEC (as amended). The function of this Screening Report is to identify the potential for the project to result in likely significant effects to European Sites and to provide information so that the competent authority can determine whether a Stage 2 Appropriate Assessment is required for the project.

1.1 STATEMENT OF AUTHORITY

This Appropriate Assessment Screening Report has been prepared by Mr. Pat Doherty BSc., MSc, MCIEEM, of DEC Ltd. Mr. Doherty is a consultant ecologist with over 20 years' experience in completing ecological impact assessments and environmental impact assessments. Pat has been involved in the completion of assessment reports for proposed developments and land use activities under the EIA Directive and Article 6 of the Habitats Directive since 2003 and 2006 respectively. He has extensive experience completing such reporting for projects located in a variety of environments and has a thorough understanding of the biodiversity issues that may arise from proposed land use activities. Pat was responsible for completing one of the first Appropriate Assessment reports for large scale infrastructure developments in Ireland when he prepared the Appropriate Assessment for the N25 New Ross Bypass in 2006/07. Since then, Pat has completed multiple examinations of both plans and projects in Ireland. He has completed Natura Impact Statements for national scale plans



Pope's Hill Residential Development

Figure 1.1

Project Site Location

Project Site

N
W E
S

0 0.325 0.65 1.3 Km

Drawn By	PD
Date	11/08/2025
Data Source	Bing

Pope's Hill Residential Development

Figure 1.2

Aerial View of the Project Site

Site Boundary

N
W E
S

0 0.015 0.03 0.06 Km

Drawn By	PD
Date	11/08/2025
Data Source	Bing

such as Ireland's CAP Strategic Plan and National Seafood Development Plan and regional and county scale plans including County Development Plans, Local Area Plans, Tourism Strategies and Climate Action Plans. Pat has completed multiple Natura Impact Statements for a range of development types that include large scale infrastructure developments in sectors such as transport and energy as well as industrial, commercial and residential developments.

Pat has completed focused certified professional development training in Appropriate Assessment as well as in a range of ecological survey techniques and assessment processes. Training has been completed for National Vegetation Classification (NVC) and Irish Vegetation Classification (IVC) surveying, bryophyte survey for habitat assessment and identification, professional bat survey and assessment training, mammal surveying and specific training for bird and bat survey techniques. Ongoing training has been completed by approved training providers such as CIEEM, British Trust for Ornithology, the Botanic Gardens and the Field Studies Council.

1.2 LEGISLATIVE CONTEXT

Legislative protection for habitats and species is provided within the European Union by the Habitats Directive. The Habitats Directive has been implemented in Ireland and throughout Europe through the establishment of a network of designated conservation areas known as the Natura 2000 (N2K) network. The N2K network includes sites designated as Special Areas of Conservation (SACs), under the EU Habitats Directive and Special Protection Areas (SPAs) designated under the EU Birds Directive 2009/147/EC (as amended). SACs are designated in areas that support habitats listed on Annex I and/or species listed on Annex II of the Habitats Directive. SPAs are designated in areas that support: 1% or more of the all-Ireland population of bird species listed on Annex I of the EU Birds Directive; 1% or more of the population of a migratory species; and more than 20,000 waterfowl.

This Screening Report for Appropriate Assessment is being prepared in order to enable the competent authority to comply with Article 6(3) of Council Directive 92/43/EEC (The Habitats Directive). It is prepared to assess whether or not the project alone or in combination with other plans and projects is likely to have a significant effect on any European Site in view of best scientific knowledge and in view of the conservation objectives of the European Sites and specifically on the habitats and species for which the sites have been designated. Measures ***intended*** to avoid or reduce the harmful effects of the proposed project on European sites (i.e.

"mitigation measures") have not been taken into account in this screening stage appraisal of the project. It is noted that, as per the EC (2021) Guidelines, design and generic measures can be taken into account at the screening stage. Furthermore it is noted that European legal precedent[1] has established that account may be taken of features of a project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the project on a European Site, where those features have been incorporated into that project as standard features, inherent in such a project, irrespective of any effect on the site.

1.2.1 Requirement for an Assessment under Article 6 of the Habitats Directive

According to section 177U(1) of the Planning and Development Act 2000 (as amended) the competent authority has a duty to:

- Determine whether the proposed Project is directly connected to or necessary for the management of one of more European Sites; and, if not,

- Determine if the Project, either individually or in combination with other plans or projects, would be likely to have a significant effect on the European Site(s) in view of best scientific knowledge and the Conservation Objectives of the site(s).

This report contains information to support a Screening for Appropriate Assessment and is intended to provide information that assists the competent authority when assessing and addressing all issues regarding the construction, operation and decommissioning of the Project and to allow the competent authority to comply with the Habitats Directive. Article 6(3) of the Habitats Directive defines the requirements for assessment of projects and plans for which likely significant effects on European Sites may arise. The Birds Directive and the Habitats Directive together list habitats and species that are of international importance for conservation and require protection. The Habitats Directive requires competent authorities, to carry out a Screening for Appropriate Assessment of plans and projects that are not directly connected to

[1] ECJ Judgement C-721/21 of the 15th June 2023

or necessary for the management of a European Site, to assess whether the plan or project alone or in combination with other plans or projects, would be likely to have significant effects on European Sites in view of best scientific knowledge and the Site's conservation objectives. This requirement is transposed into Irish Law by, inter alia, Part XAB of the Planning and Development Act, 2000 (as amended). Section 177U(4) of Part XAB of the Planning and Development Act states:

"The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site. "

2.0 STAGE 1 SCREENING METHOD

This Screening Report has been prepared in order to comply with the legislative requirements outlined in Section 1.1 above and aims to establish whether or not the proposed project, alone or in combination with other plans or projects, would be likely to have significant effects on European Sites in view of best scientific knowledge and the Site's conservation objectives. In this context "likely" means a risk or possibility of effects occurring that **cannot** be ruled out based on objective information and "significant" means an effect that would undermine the conservation objectives of the European sites, either alone or in-combination with other plans and projects (Office of the Planning Regulator (OPR), 2021).

The nature of the likely interactions between the proposed development and the Conservation Objectives of European Sites will depend upon the:

- the ecological characteristics of the species or habitat, including their structure, function, conservation status and sensitivity to change; *and/or*
- the character, magnitude, duration, consequences and probability of the impacts arising from land use activities associated with the plan, in combination with other plans and projects.

This Screening Report for Appropriate Assessment has been undertaken in accordance with respective National and European guidance documents: Appropriate Assessment of Plans and

Projects in Ireland: Guidance for Planning Authorities (DEHLG 2010); *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;* and *Office of the Planning Regulator – OPR Practice Note PN01: Appropriate Assessment Screening for Development Management* (2021), and recent European and National case law. The guidance document *Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (2018)* was also of relevance during the preparation of this Screening Report.

The EC (2021) guidelines outline the stages involved in undertaking a Screening Report for Appropriate Assessment for projects. The methodology adopted during the preparation of this Screening Report is informed by these guidelines and was undertaken in the following stages:

1. Describe the project and determine whether it is necessary for the conservation management of European Sites;

2. Identify European Sites that could be influenced by the project;

3. Where European Sites are identified as occurring within the zone of influence of the project identify potential effects arising from the project and screen the potential for such effects to negatively affect European Sites identified under Point 2 above; and

4. Identify other plans or projects that, in combination with the project, have the potential to affect European Sites.

3.0 PROJECT DESCRIPTION

3.1 OVERVIEW

The proposed development will consist of a Large-Scale Residential Development (LRD) on a site at Pope's Road, Blackpool, Cork which will include the demolition of a terrace of 4no. existing dwellings, 3no. of which are derelict, and ancillary sheds and their replacement with 1no. single-storey 3-bed detached bungalow accessed via a modified private driveway; and the construction of 103no. dwellings to include 50no. townhouses and 53no. duplex apartments. A total of 104no. dwellings (18no. 1 bed, 9no. 2-beds, 69no. 3-beds, and 8no. 4-beds) are proposed, accessed via Pope's Road. The proposed development will also include a crèche with

rear garden and front set down area; 104no. car parking spaces; 128no. cycle spaces; internal roads and pathways; hard and soft landscaping, including boundary treatments; retaining walls; 2no. pedestrian connections with Glentrasna Park to the north;; and all associated site development, landscaping and boundary treatment and drainage works, including SuDS.

3.2 SURFACE WATER MANAGEMENT

3.2.1 Existing Stormwater Drainage

There is an existing surface water network discharging water from Popes Hill and Popes Road located west of the proposed development site. This network was identified based on utilities surveys, inspections and record drawings provided by Cork City Council and Uisce Éireann. This network however discharges into an existing combined storm sewer network. In accordance with the confirmation of feasibility issued by Uisce Éireann, no surface water runoff from the site will be discharged into this network.

There is a separate surface water and foul water network within the Glentrasna area to the north of the site, which was picked up in an extended topographical survey carried out in November 2025 in Glentrasna.

The 225mm surface water pipework extends to the boundary of the Popes Hill site with an existing manhole in the hammerhead of the Glestrasna Crescent and a 225mm spur pipe left out of the manhole in the direction of the site. The 225mm pipework drains through Glentrasna and onto Glen Avenue. This network is suitable for an attenuated outfall for the proposed site.

3.2.2 Proposed Stormwater Drainage

The proposed surface water drainage system will be designed using Causeway Flow software in accordance with the Department of Environment and Local Government's guidance document "Recommendations for Site Development Works for Housing Areas", Further design parameters and guidance were adopted from the following documents:

Table 3.1 describes the stormwater drainage design parameters which have been used in design.

Table 3.1: Stormwater Drainage Design Parameters

Description	Value	Standard Reference / Notes
Site Area (Ha)	2.368 Ha	Redline Boundary
Return period target	Pipe Design 1 in 5-year. Network Design 1 in-30 year + CC. Check 1 in 100-year + CC for flooding.	GDSDS
Climate Change	20%	GDSDS
M5-60	18.500	Met Éireann Rainfall Data (2023 Model)
Ratio R	0.264	Met Éireann Rainfall Data (2023 Model)
SAAR	1152mm	Met Éireann Rainfall Data (2023 Model)
SOIL type	2 (sandy gravelly clay)	Site Investigation
Soil value	0.3	Site Investigation
Infiltration Rate	6.23×10^{-6}m/s (22.4 mm/hr) TP03 1.598×10^{-5}m/s (57.2 mm/hr) TP07 6.53×10^{-6}m/s (23.5 mm/hr) TP09	Site Investigation.
Flow reduction parameter	QBAR	Institute of Hydrology report No. 124
Controlled Outflow	Hydrobrake Detention Basin I= 2.91l/s Hydrobrake Detention Basin II= 6.81l/s	
Flow restriction method	Hydrobrake	
Attenuation Storage Volume	Soakaway I = 18 m^3 Detention Basin I = 324m^3 Detention Basin II= 346m^3 Total volume storage= 688m^3	BRE365 & SUDS Guidance
Permeable paving	186.58m^3 (Porosity = 0.3)	
Interception Volume	N/A	Interception treatment requirement satisfied by detention basins and upstream Suds features.

Treatment Volume	N/A	Treatment volume requirement satisfied by detention basins and upstream Suds features.
Max. velocity at pipe full	3.0 m/s	
Min. velocity	1.0 m/s 0.75 m/s where not practicable	GDSDS Table 6.4
Minimum cover	1.2m under roadways 0.9m elsewhere	GDSDS Table 6.4
Rougness – ks	0.6mm	GDSDS Table 6.4

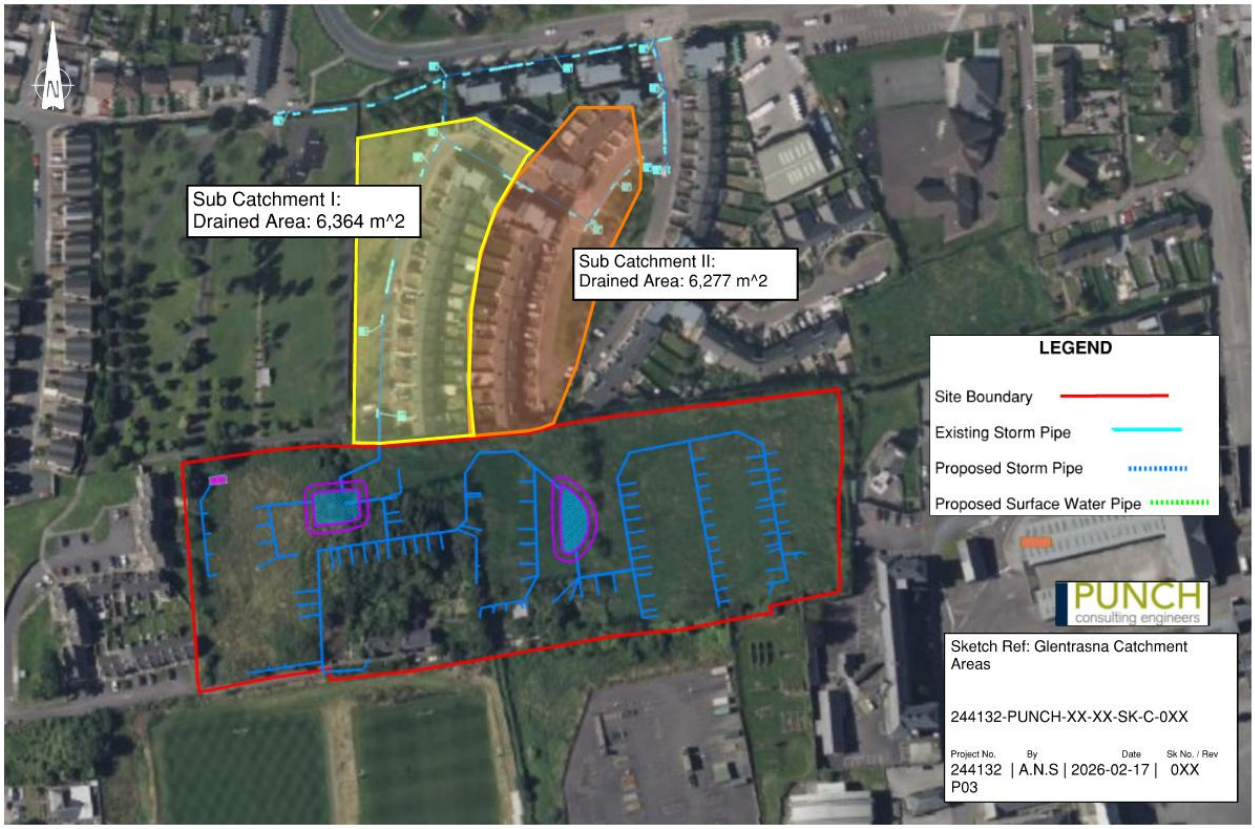
3.3 PROPOSED STORMWATER OUTFALL

Surface water from the proposed development is designed to discharge to the existing surface water network within Glentrasna Estate. As part of the capacity assessment, the contributing drainage catchment entering the relevant pipes in the estate were split into Sub-Catchment I, with a contributing area of 6,364 m², and Sub-Catchment II, with a contributing area of 6,277 m². Refer to Figure 3.below for the mapping.

To confirm the feasibility of this connection, the capacity of the existing surface water sewer network in the Glentrasna Estate has been reviewed. The existing pipe network has an estimated capacity of 165 l/s at the outfall from Glentrasna to Glen Avenue where the pipework is at a gradient of 1/10 with a flow of 114l/s from Glentrasna based on a conservative rainfall intensity of 50 mm/hr (50 mm/hr is greater than a 1 in 120 year event) – refer to calculation below for Catchment Areas 1+2. Gradients on Glen Avenue are also c. 1/10.

The calculated QBAR for the proposed development is 6.81 L/s, which is 4% of the pipework capacity of the existing network of 165 l/s at the outfall from Glentrasna to Glen Avenue. Further up the Glentrasna Estate in Catchment I, the surface water pipework flattens to a gradient 1/70 between manholes MH 101 & MH 103, however the existing drainage area is much less with a capacity calculation for this section of pipework also included below. Therefore, the Glentrasna Estate drainage system is capable of accommodating the greenfield flow from the proposed development.

Figure 3.1: Glentrasna Outfall Catchments



3.4 PROPOSED SURFACE WATER DRAINAGE NETWORK

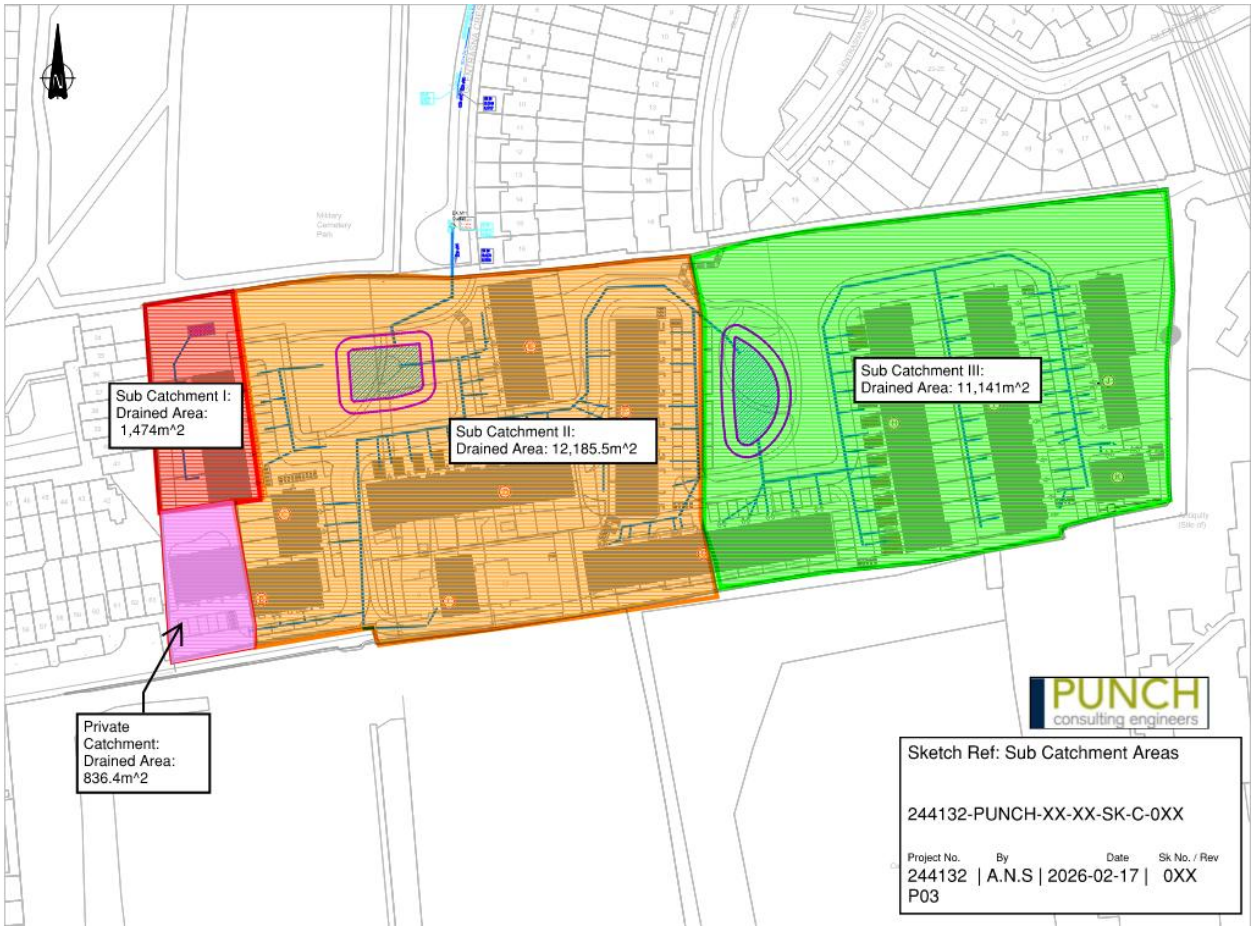
The surface water drainage strategy for the proposed development will adhere to the principles of Sustainable Drainage Systems (SuDS). It is noted in the Uisce Éireann Confirmation of Feasibility included that surface water generated from the proposed site is not permitted to discharge into the Uisce Éireann network at this location. A new surface water sewer network, entirely separate from the foul water sewer network, will be provided for the development.

The overall strategy involves collecting runoff from the roofs, impermeable road, footpath and parking surfaces to a series of tree pits and bioretention areas and interconnecting filter drains. The drainage systems will allow for some infiltration at source through a Nature Based Solution approach with the filter drain pipework collected to buried surface water pipework. The buried surface water pipework will also collect runoff from the residential properties and private permeable parking areas and together with the runoff collected from filter drainage pipework all will be directed to two detention basins in areas of the site which will be levelled off to

provide public parks. Soakaways are proposed to the west of the site to cater for the lower areas of the site. The design ensures outflow is limited to QBAR calculated on the basis of the effective drained area only such as impermeable areas. The combined attenuated outflow will then connect to the surface water pipe network within Glentrasna Estate.

The site is split in three main sub-catchments with a private catchment for the Creche building as shown below in Figure 3.2 below. Site investigations have been carried out on site which show that the existing ground conditions typically comprise original material, which is topsoil on firm sandy gravelly Clay on Gravel soils over weathered bedrock. In conjunction with the Site Investigations, soakaway tests to BRE 365 were completed at 3 locations on the site installations.

Figure 3.2: Drainage Sub-Catchment Strategy



The majority of the surface water runoff from the proposed development will be collected through a series of Suds systems to a piped network and brought to two landscaped detention basins, where a portion of the runoff will infiltrate naturally into the ground through the Suds systems and the detention basins. The southwest portion of the site, which includes a creche, siting at a significantly lower level relative to the main drainage network. Therefore, this area will drain to both a private soakaway with the front of the property and road surface and to an outfall to the adjacent road to the west which currently caters for runoff from the existing roadway.

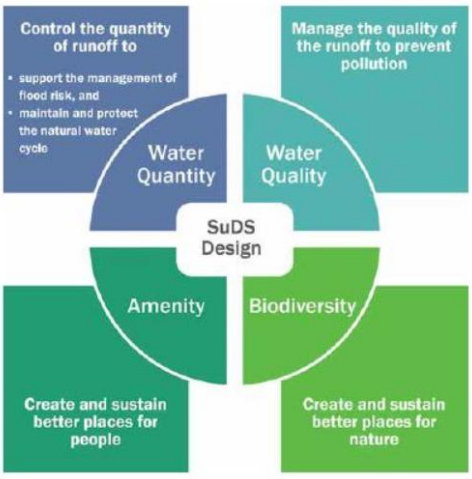
The minimum diameter of the mainline surface water sewers is 225mm. The minimum horizontal and vertical separation distances between the proposed drainage and other services are as per the Uisce Éireann Code of Practice.

The surface water drainage network has been analysed for the risk of flooding for a 1 in 5-year flood event, 1 in 30-year rainfall event and a 1 in 100-year rainfall event by means of simulating such events in the drainage model with no flooding occurring. An increase of 20% in rainfall has been included to account for climate change.

3.5 SUDS STRATEGY

SuDS decrease the negative impact developments have on the environment by providing amenity and biodiversity, while also reducing runoff. There are 4 main objectives which are critical to meet in the design of SuDS. The objectives comprise of water quality, water quantity, Amenity and Biodiversity. Refer to Figure 3.3 below:

Figure 3.3



To expand on the four principles:

- **Water Quality:** Water Quality to be improved by providing treatment to the storm water prior to discharge
- **Water Quantity:** Infiltration to be encouraged where appropriate, and peak flows to be attenuated for in the design
- **Amenity:** The design must be functionable for the end users of the site
- **Biodiversity:** The design should provide habitat to wildlife so that they can co-exist with people. This is particularly important for flora and fauna near watercourses for feeding and nesting.

3.6 COMPLIANCE WITH GDSDS & SUDS PRINCIPLES

The proposed development is designed in full accordance with the principles of Sustainable Drainage Systems (SuDS) as recommended by the Greater Dublin Strategic Drainage Study (GDSDS). The GDSDS promotes sustainability by requiring designs to comply with specific drainage criteria that aim to minimize the impact of urbanization by replicating the runoff characteristics of the greenfield site. These criteria ensure a consistent approach to managing the increase in both the rate and volume of runoff, as well as protecting the environment from pollution caused by roads and buildings. The drainage design criteria are as follows:

- Criterion 1: River Water Quality Protection

- Criterion 2: River Regime Protection
- Criterion 3: Level of Service
- Criterion 4: River Flood Protection

To satisfy SuDS requirements, developments typically incorporate:

- Interception storage
- Treatment storage (unnecessary if interception storage is adequate)
- Attenuation storage
- Long-term storage (unnecessary if QBAR growth factors are not applied in attenuation storage design)

In this case, surface water discharge will be managed entirely through infiltration via 2 no. detention basins to the east and one smaller soakaway to the northwest of the site, which are equipped to handle attenuation storage needs for storm events up to the 1% AEP event. This approach negates the need for off-site surface water discharge, ensuring full interception storage within the site and eliminating the requirement for treatment or long-term storage.

3.6.1 Criterion 1 GDSDS – River Water Quality Protection

Natural greenfield areas typically contribute minimal pollution and sediment to rivers, as most rainfall percolates into the ground, preventing direct runoff to rivers during most rainfall events. In contrast, urban areas with pipe drainage systems experience runoff from almost every rainfall event, often carrying higher levels of pollution, especially during the initial phase of runoff, with minimal percolation into the ground. To manage this, Criterion 1 mandates the provision of interception storage and/or treatment storage to replicate the runoff characteristics of pre-development greenfield sites.

3.6.1.1 Interception Storage

Interception storage should ensure that at least the first 5mm of rainfall is retained on-site and does not reach receiving waters. For the subject site, surface water discharge will be managed via infiltration through two large detention basin systems, one small soakaway and private soakaway systems, ensuring by default compliance with the 5mm interception requirement.

3.6.1.2 Treatment Storage

According to the GDSDS, interception and treatment storage are interchangeable. Since full interception storage is provided through the detention basins and soakaway systems, additional treatment storage is not necessary.

3.6.2 Criterion 2 GDSDS – River Regime Protection

Unchecked runoff from developed sites through traditional pipe networks discharges into receiving waters at rates significantly higher than pre-development levels, causing flash flows that can lead to scour and erosion in rivers and streams, as such the following requirements are to be met:

1. "Discharge rate equal to 1 – year Greenfield site peak runoff rate or 2 l/s/ha, whichever is the greater. Site critical duration storm to be used to assess attenuation storage volume".

2. "Discharge rate equal to 1 in 100-year Greenfield site peak runoff rate or 2 l/s/ha, whichever is the greater. Site critical duration storm to be used to assess attenuation storage volume".

No runoff shall be leaving the site, with all runoff being collected by proposed stormwater drainage and ultimately infiltrating into the ground, therefore the development meets the requirements of Criterion 2.

3.6.3 Criterion 3 GDSDS – Level of Service (Flooding) for the site

The GDSDS states that no flooding should occur on-site for storms up to and including the 1 in 30-year event. The pipe network and attenuation storage volumes must be sufficient to prevent site flooding, though partial surcharging is acceptable as long as it does not lead to flooding.

For the 1 in 100-year + 20% climate change (CC) event, the pipe network can fully surcharge and cause site flooding, but the peak water level must be at least 500mm below any vulnerable internal floor levels, and floodwaters must be contained within the site. The top water level in any attenuation device during this event must also be at least 500mm below any vulnerable internal floor levels.

The stormwater drainage calculations included in Appendix A of the Drainage Impact Assessment prepared by Punch Consulting Engineers (provided under separate cover with the planning application documentation), including detention basin volumes, demonstrates that the detention basin systems will not flood during the 1 in 100-year + 20% CC event. The peak volume for this event is as follows for the three sub-catchments:

1. Sub-Catchment I – 17.5m³ for the sub-catchment I, corresponding to a depth of 0.5m in the soakaway structure, resulting in a top water level of 55.300, which is more than 500mm below any adjacent floor levels.

2. Sub- Catchment II- 346m³ for the sub-catchment II, corresponding to a depth of 0.8m in the detention basin, resulting in a top water level of 62.427m, which is more than 500mm below any adjacent floor levels fronting onto the open space area where the soakaway is located.

3. Sub- Catchment III – 324 m³ for the sub-catchment III, corresponding to a depth of 0.8in the detention basin, resulting in a top water level of 71.214m, which is more than 500mm below any adjacent floor levels fronting onto the open space area where the soakaway is located.

Therefore, Criterion 3 is satisfied.

3.6.4 Criterion 4 GDSDS – River Flood Protection

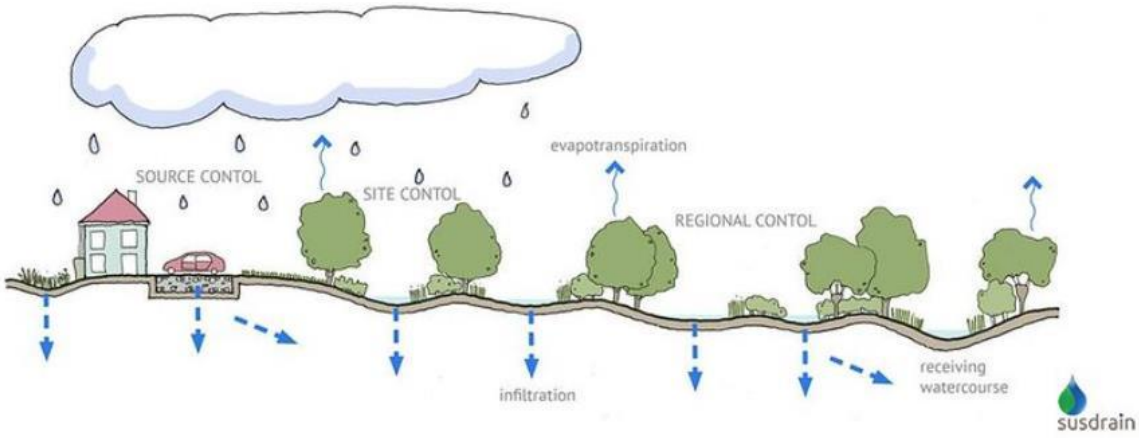
Criterion 4 aims to prevent flooding of the receiving system or watercourse by either limiting the runoff volume to pre-development levels using "long-term storage" (Option 1) or by limiting the runoff rate for the 100-year storm to QBAR without growth factors using "extended attenuation storage" (Option 2).

As the proposed development includes two detention basins and a soakaway that manage all surface water on-site, there will be no discharge to river networks. The detention basins and soakways have been designed to provide sufficient storage thus meeting design Criterion 4.

3.7 SUDS MANAGEMENT TRAIN

A suds management train system was used during the design of the surface water drainage system. The main principles involve source control and prevention of overland flow from a site, and to improve the water quality of a site. Refer to Figure 3.4 below:

Figure 3.4: SuDS Principles Infographic (ref: sdcc.ie)



3.8 SUDS PROPOSALS

The proposed development has been assessed in relation to Sustainable Urban Drainage Systems (SuDS). A variety of SuDS measures may be adopted to comply with Council recommendations. All SuDS measures are to be implemented with reference to the UK SuDS Manual and Cork City Council drainage requirements.

SUDS measures will be provided to ensure interception storage of the first 5 to 10mm of rainfall for all storm events. Relatively small volumes of rainwater collected on the respective SuDS devices will enter the public sewer network during typical low intensity storms. SuDS measures will retain rainwater until it is either used via evapotranspiration in the green areas or discharged into the proposed surface water infrastructure network.

The SuDS processes will decrease the impact of the development on the receiving environment by providing amenity and biodiversity in many cases. Regular maintenance of the SuDS proposals will be required to ensure they are operating to their optimal level throughout their design life, refer to Section 6 for detailed information on the maintenance of SuDS in this proposed development.

Figure 3.5 demonstrates the selection process for SuDS measures.

Figure 3.5: SUDS Selection Hierarchy for Large Scale Development

SuDS Measure	Measures to be used on site	Rational for selecting/ not selecting measure	Area of feature (m^2)	Attenuation volume feature (m^3)
Swales	No	The contours of the site with road gradients of typically 5% are not suitable for road drainage to swale installations	-	-
Integrated constructed tree pits	yes	Roadside tree planting will be availed of to treat surface water runoff	26 No. x 1.5m2 = 39 m2	Not accounted for
Rainwater Butts	yes	Considered suitable in private areas.	-	Not accounted for
Downpipe Planters	yes	Considered suitable in private areas.	-	Not accounted for
Rainwater Harvesting	No	Considered unsuitable for proposed development.	-	-
Soakaways	Yes	Allowing for delayed release and reducing the immediate pressure on stormwater infrastructure.	Soakaway I = 21m2 Private Soakaway = 15m2	Soakaway I = 18m3
Infiltration trenches	No	Soakaway system addresses SuDs requirements	-	-
Permeable pavement	Yes	Providing treatment and storage.	287m2	Not accounted for
Green Roofs	No	Considered unsuitable for proposed development.	-	N/A
Green wall	No	Considered unsuitable for proposed development.	-	-
Filter Strips	No	Considered unsuitable for proposed development.	-	-
Rain Gardens	Yes	Considered suitable in private areas.	-	Not accounted for
Bio-retention	Yes	Soakaway system addresses SuDs requirements	73.9m2	Not accounted for
Blue Roofs	No	Considered unsuitable for proposed development.	-	-
Filter Drains	Yes	Providing treatment and storage.	207.1m length x 0.6m wide = 124.26m2	Not accounted for
Detention Basins	Yes	Allowing for delayed release and reducing the immediate pressure on stormwater infrastructure.	Detention Basin I = 522m2 Detention Basin II= 524m2	$324m^3$ $346m^3$
Ponds	No	Considered unsuitable for proposed development.	-	-

SuDS Measure	Measures to be used on site	Rational for selecting/ not selecting measure	Area of feature (m^2)	Attenuation volume feature (m^3)
Wetlands	No	Considered unsuitable for proposed development.	-	-
Petrol Interceptor	No	Considered unnecessary for the proposed development with a treatment train provided for the road and parking runoff.	-	-
Attenuation Tank	No	Considered unsuitable for proposed development.	-	-

3.8.1 Bio-Retention Systems

Bio-retention systems have been included in the design of the SuDS system. The bio-retention areas will incorporate drainage stone and subsoil. The basin will allow stormwater to percolate downwards through a carefully selected filter medium, facilitating the removal of suspended solids and other finer contaminants. The performance of the bioretention system can vary based on the particle size and composition of the filter media, with different qualities achievable depending on specific site requirements. To prevent lateral seepage and ensure controlled infiltration, the base and sides of the system will be lined.

As outlined in CIRIA C753 (The SuDS Manual), bio-retention areas are highly effective in managing runoff by promoting natural infiltration and groundwater recharge. Table 24.6 specifies that interception designs for infiltration systems can be assumed to provide complete interception, with zero runoff expected from the first 5 mm of rainfall for 80% of events during the summer and 50% in winter. This applies to systems designed to infiltrate runoff from events exceeding a 1-month return period, contributing to significant runoff reduction for smaller, more frequent storms.

Refer to Figures 3.6-3.8 for an illustration of the components of a bioretention system, section through a permeable pavement system and example photos of bioretention features in a development.

Figure 3.6: Components of a bioretention system (ref: CIRIA SuDS Manual)

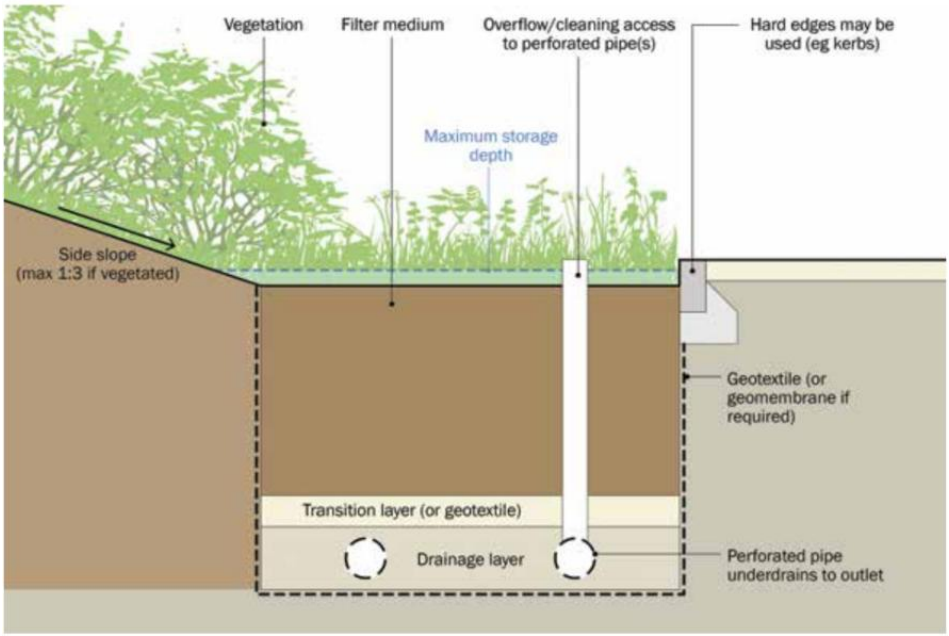


Figure 3.7: Section through a typical permeable pavement system (ref: CIRIA SuDS Manual)

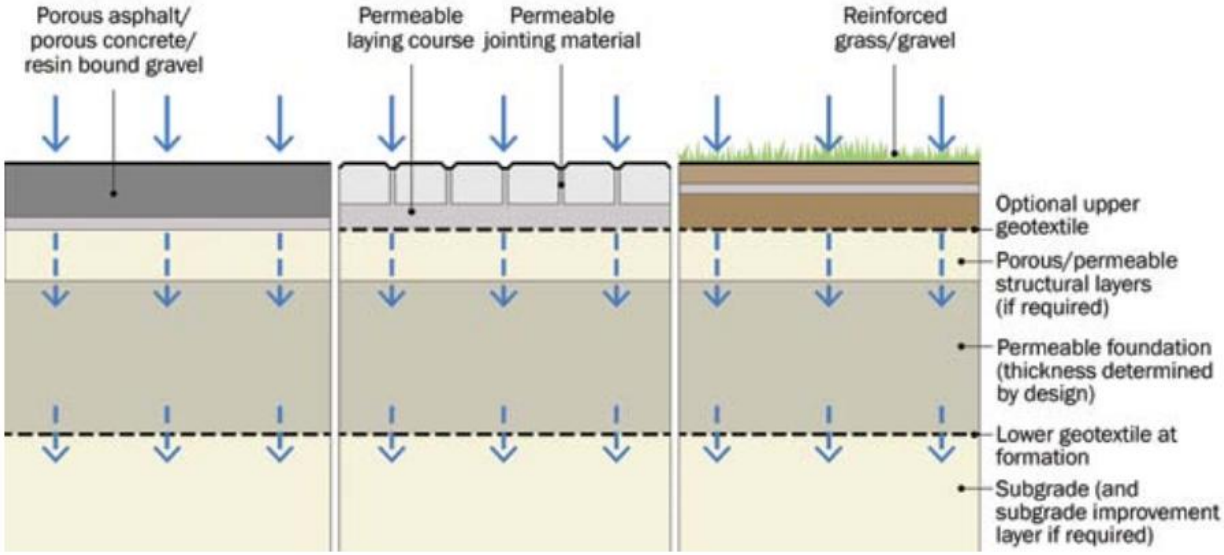


Figure 3.8: Bioretention Systems and Rain Gardens (ref: CIRIA SuDS Manual)

Figure 10.5 Bioretention systems and rain gardens (courtesy Illman Young)

3.8.2 Soakaways

The rate at which water can be infiltrated depends on the infiltration capacity (permeability) of the surrounding soils. Soakaways are below-ground infiltration structures designed to collect and disperse surface water runoff into the surrounding soil. They provide attenuation and promote infiltration, helping to mimic natural drainage processes and reduce the volume of water entering the drainage network. The proposed soakaway will provide an additional level of attenuation storage within the voids in the stone within the proprietary cellular storage system.

The base and sides of the soakaway will be lined and a high-level overflow within the build-up will accommodate removal of excess water to the drainage network. The proposed soakaway will accommodate the 1% AEP (annual exceedance probability) rainfall event with an allowance for 20% climate change, using an infiltration rate of TP03, 22.4 mm/hr according to a specific site investigation carried out on 09th of July 2025, following the requirements of the (BRE Digest 365 – Soakaway design, 2016).

The proposed soakaway will be made up of geocellular AquaCell Core-R type modular unit, which has been designed for use in deep applications and long-lasting solutions with the following measurements:

- Soakaway = volume 17.5m³ - 7m long by 3m wide by 0.5 m deep

The soakaway will have a voids ratio of approximately 95%. Additionally, the soakaway will have a 0.5m sump located upstream of the soakaway inlet.

A private Soakaway is also proposed within rear gardens to the creche to cater for the runoff from the rear roofs of these units.

The design proposed follows guidelines set out in Infiltration systems Guidelines: CIRIA SuDS Manual 2015, chapter 13. Refer to Figure 3.9 for an illustration of components of soakaways system.

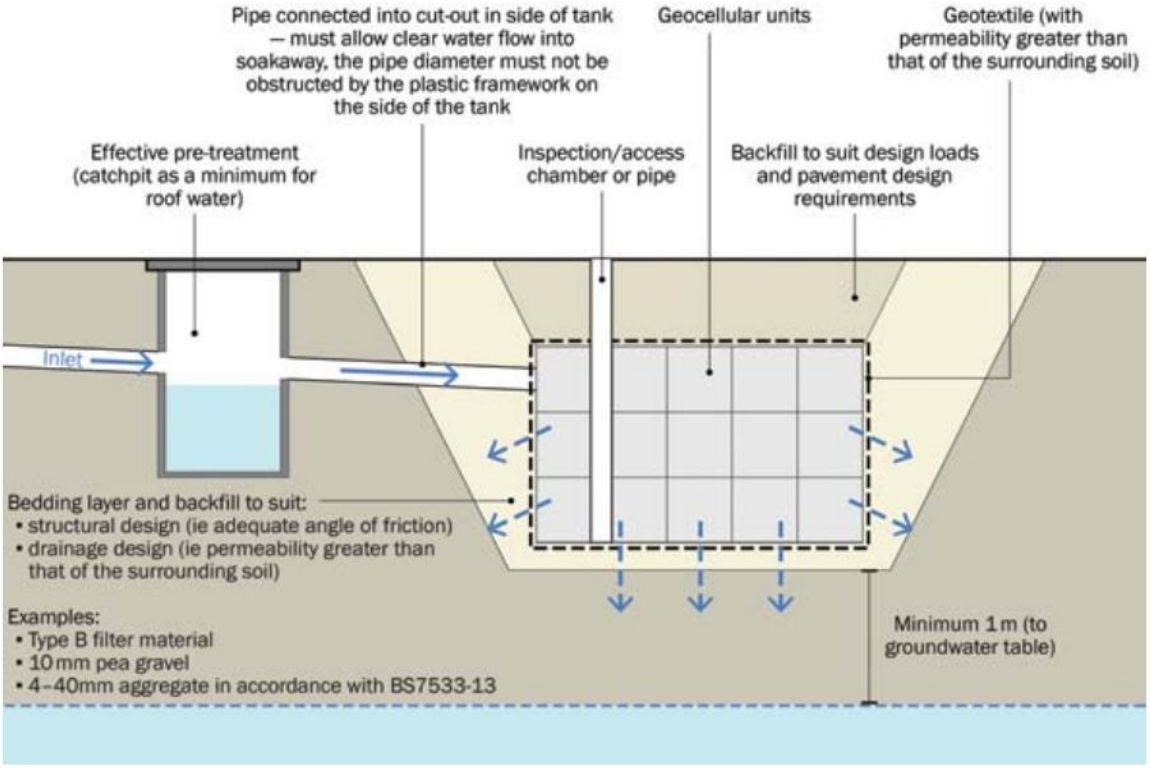


Figure 3.9 Indicative components of soakaways system

3.8.3 Tree Pits

Tree pits act as bioretention systems, allowing stormwater to filter down through engineered soil or bioretention media, which removes pollutants and promotes water infiltration. The proposed tree pits will serve both as landscape elements and as stormwater management features, providing a dual function of urban greening and surface water attenuation. Proposed surface water along the development's landscaped paved areas where possible will discharge to a SuDS element such as tree pits for interception and treatment prior to entering the drainage network.

According to CIRIA C753 (The SuDS Manual), tree pits contribute to sustainable urban drainage by capturing and retaining the first flush of stormwater, particularly for smaller, more frequent rainfall events. As per Table 24.6 of CIRIA C753, tree pits designed for interception can retain the first 5 mm of rainfall, reducing runoff for 80% of summer events and 50% of winter events, in alignment with SuDS principles. The design ensures zero runoff for many smaller events, making tree pits an effective solution for urban stormwater management.

The tree root systems will incorporate drainage stone/subsoil and will provide a level of additional attenuation. The base and sides of the tree root system will be lined to prevent lateral infiltration into surrounding structures, ensuring water is directed into the subsoi**l.** A high-level overflow and underdrain will be incorporated to ensure excess water is effectively drained away to the stormwater network, preventing waterlogging.

The surface water runoff from areas of the road, footpath and parking will be collected to gullies or through gaps in the road kerbing and drained to tree pits. Filter pipework will run in line with the trees pits and discharge to the piped surface water system to allow for some infiltration at source enroute to the detention basins. For the purpose of the outline design, as a conservative measure, no attenuation storage has been assumed within tree pits. Refer to Figure 3.10 Tree Pit Schematic – Cross Section (ref: DMURS Advice Note 5) a tree pit schematic diagram.

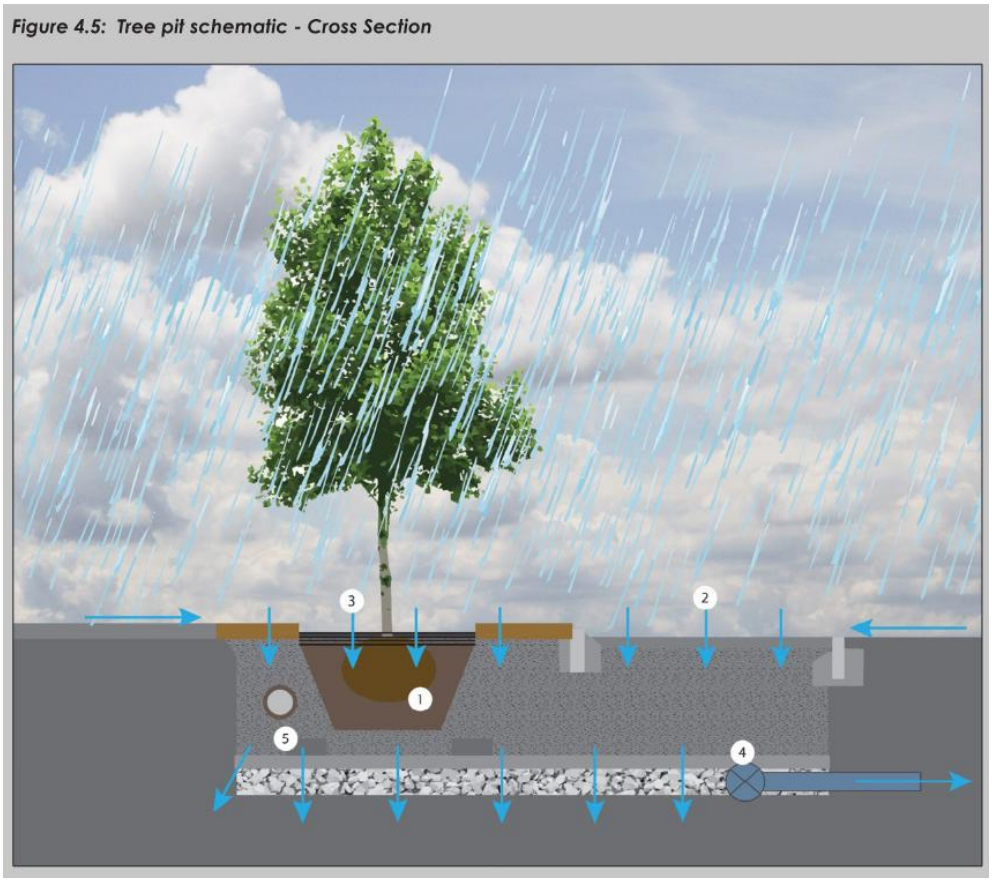


Figure 3.10 Tree Pit Schematic – Cross Section (ref: DMURS Advice Note 5)

3.8.4 Permeable Paving

Permeable pavements allow rainfall and surface runoff to infiltrate through the surface into a permeable sub-base, where it is temporarily stored, treated, and either infiltrated or conveyed away at a controlled rate. Permeable pavements are a multifunctional SuDS measure providing source control, attenuation, water-quality treatment, and reduced surface flooding. Typical systems include permeable block paving, porous asphalt, and permeable concrete surfaces.
Permeable block paving is proposed for the private car parking bays within the site. The treatment processes that occur within permeable block paving build ups include:

- Filtration of silt and the attached pollutants – the majority of silt is trapped within the top 30mm of the jointing material between the blocks.
- Biodegradation of organic pollutants, such as petrol and diesel within the pavement construction.
- Adsorption of pollutants (pollutants attach or bind to surfaces within the construction) which depends on factors such as texture, aggregate structure and moisture content.

- Settlement and retention of solids.

The use of permeable block paving for the private driveways is proposed. The use of permeable block paving for this purpose is supported by the treatment processes outlined above. CIRIA C753 (The SuDS Manual) notes that regarding interception design of permeable pavements, studies have shown that runoff typically does not occur from permeable pavements for rainfall events up to 5 mm. For the purpose of the outline design, as a conservative measure, no attenuation storage has been assumed within the sub-base of the parking areas.

3.8.5 Detention Basins

Detention basins will form part of the site's sustainable stormwater strategy, providing both attenuation and water-quality benefits. Designed as shallow, landscaped depressions, detention basins temporarily store runoff during rainfall events before releasing flows at a controlled rate through a restricted outlet, in accordance with CIRIA C753 guidance. During storms they fill to provide effective peak-flow attenuation. Where vegetated, the basin base filters runoff as it passes across the surface, supporting sediment removal and improving water quality. This approach aligns with SuDS principles by using a nature-based solution to manage runoff close to source, reducing peak discharge rates, and integrating a functional drainage component within the landscaped environment. Refer to Figure 3.11 for an indicative cross-section of a detention basin, and refer to Figure 3.12 for an example of a detention basin within a residential development.

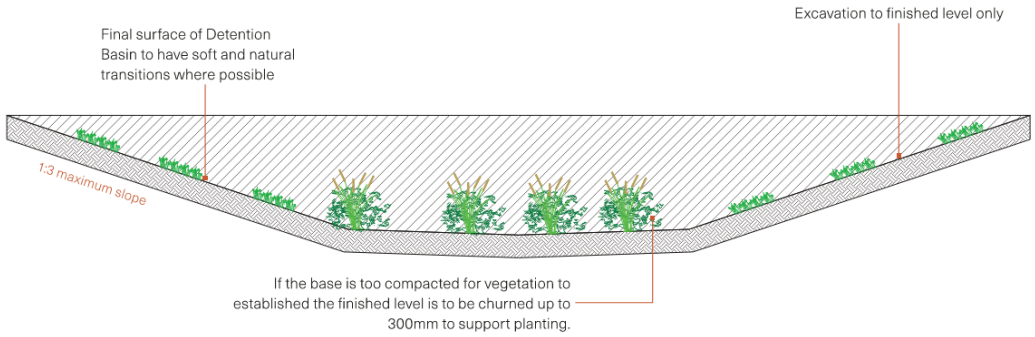


Figure 3.11 Indicative Detention Basin Cross Section

Figure 3.12 Detention Basin Example (ref: SUDS Manual)

Trial pits, soakaway tests and boreholes have been carried out as part of the ground investigation works at the locations of the detention basins to examine the underlying ground conditions including the infiltration characteristics, sub-soil characteristics, groundwater levels and depth to bedrock.

Detention basin I at the centre of the site has a minimum invert level of 70.475mOD. Rotary Borehole BH03 was drilled at this location which indicates the top of the weathered sandstone at 66.66mOD, approx. 3.8m below the detention basin. The highest ground water level was found at 67.82mOD, approx. 2.65m below the detention basin. Refer to Figure 3.13 for a section through proposed Detention basin I.

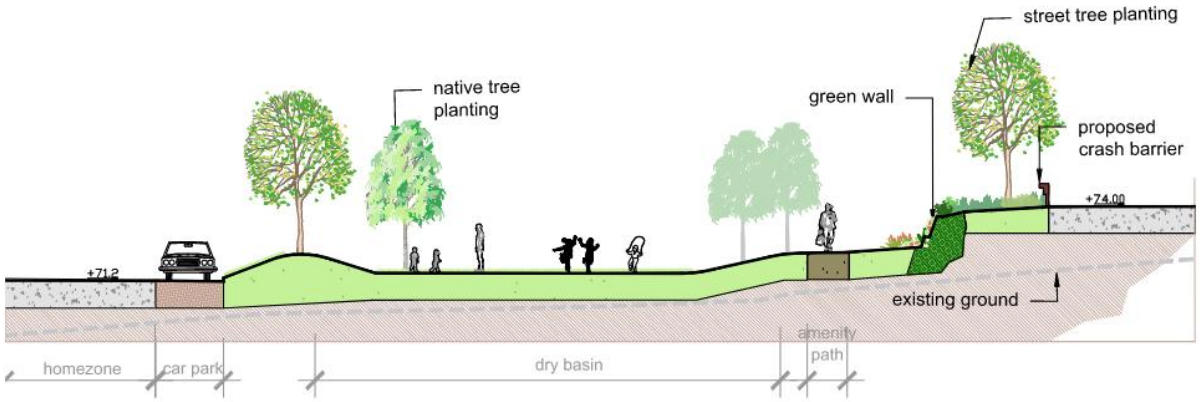


Figure 3.13 Detention Basin I Section

Detention basin II is located at the northwest boundary of the site has a minimum invert level of 61.590mOD. Rotary Borehole BH02 was drilled at this location which indicates the top of the weathered sandstone at 59.02mOD, approx. 2.6m below the detention basin. The ground water level was found at approx. 5.6m below ground level (55.92Mod), approx. 5.67m below the detention basin.

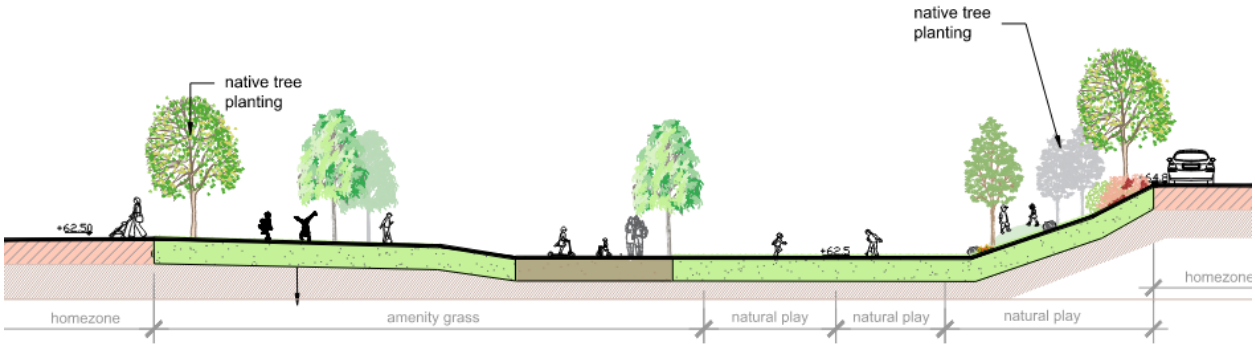


Figure 3.14 Detention Basin II Section

3.8.6 Flow Control Devices

Flow control devices are required at the outlet of each detention basin to ensure that discharge from the proposed development is restricted to the QBAR and that the downstream capacity within the receiving surface water network at Glentrasna is not exceeded. Each unit has been sized to regulate flows during the 1-in-100-year storm event including 20% climate change allowance ensuring that attenuation storage within the basins is fully utilised before discharge begins to increase.

The following are the proposed Hydrobrakes:

- Detention basin I has a proposed hydrobrake with a design flow of 2.91l/s. The cover level is 71.275m, and the invert level is 70.475m.
- Detention basin II has a proposed hydrobrake with a design flow of 6.81l/s. The cover level is 62.390m, and invert level is 61.590m.

3.9 FOUL WATER DRAINAGE

3.9.1 Existing Foul Water Drainage

On-site inspections, utilities surveys and a review of record drawings provided by Cork City Council and Uisce Éireann indicate that the existing 150mm foul sewer network running east-west direction on the western side of the site located on Popes Road servicing the residential development. There is also a 150 mm diameter combined sewer extending in an east-west direction.

It is noted on the northern boundary of the site in the Glentrasna residential estate, ramifications (Drive, Avenue, and Hill), there are three 225 mm diameter dedicated foul sewer drainage lines flowing in a south-north direction.

An extract from Cork City Council and Uisce Éireann Record Drawings illustrating the existing foul water drainage arrangement is shown in Figure 3.15 below.

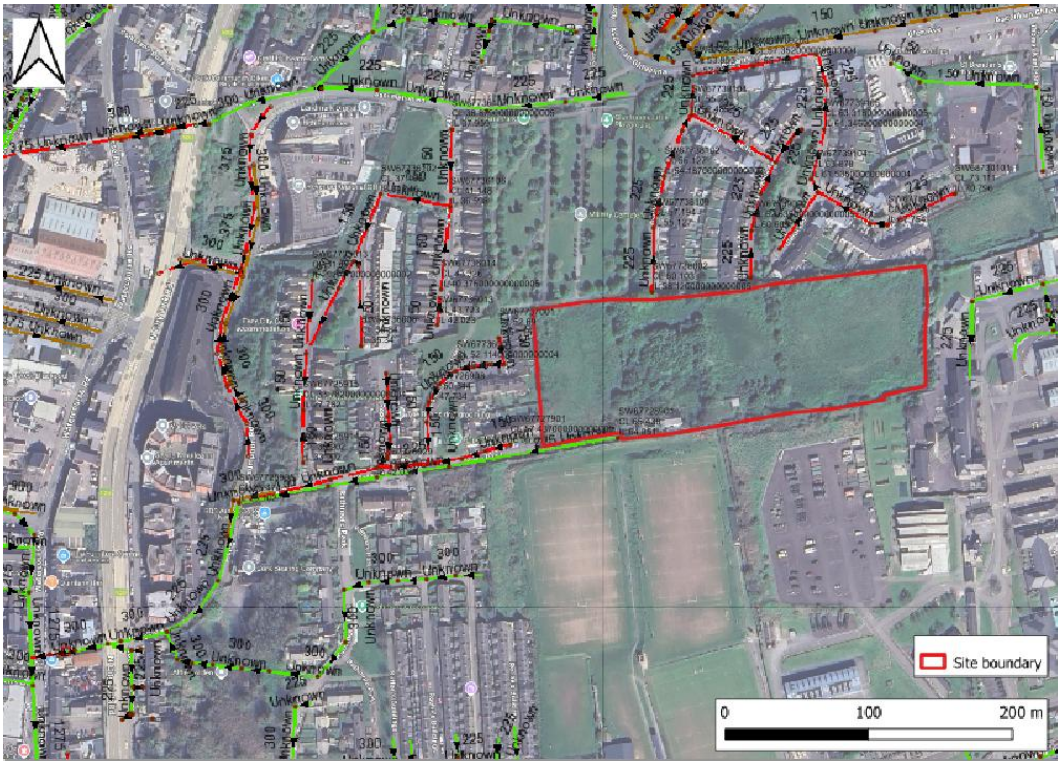


Figure 3.15: Existing foul drainage adjacent to site (extract from IW records, site boundary outlined in red)

3.9.2 Proposed Foul Water Drainage

The proposed foul water sewers will be designed using Causeway Flow software in accordance with the DOE's "*Recommendations for Site Development Works for Housing Areas*". The foul loading will be calculated in accordance with "Code of Practice for Wastewater Infrastructure" (particularly clause 36, Appendix C and Appendix D) published by Uisce Éireann.

It is proposed that the foul sewer will be discharged by gravity to the existing foul sewer network located on Popes Road flowing east-west. A Confirmation of Feasibility Ref. CDS25009768 has been received from Uisce Éireann noting that the connection is feasible subject to upgrades to the foul drainage network. It is required to upsize approximately, 60 meters of sewer pipes downstream of the proposed development from 300mm to 450mm in diameter.

All relevant foul water information for the proposed development was included as part of a Design Submission for review by the Uisce Éireann Quality Assurance team. Following a pre-

planning meeting under section 247 of the Planning and Development Act 2000, that took place on 10th of January 2025 to discuss the scope of the proposed development, it was agreed with Cork City Council that the planning submission could proceed prior to receiving the Statement of Design Acceptance from Uisce Éireann. PUNCH contacted Uisce Éireann in relation to progress of the review of the Design Submission on the 10th March 2026 and were advised that the review was on-going.

Figure 3.16: Foul Water Drainage Design Parameters

Sector	Value
Residential Flow Rate	150 l/person/day
Persons per Dwelling	2.7
Infiltration	10% (New development)
Peaking Factor	6 (Residential)
Minimum Self Cleansing Velocity	0.75m/s
Minimum Pipe Diameter	150mm

3.9.3 Proposed Foul Water Flows

Figure 3.17 summarises the proposed foul flows for the development. The daily foul loading for the proposed development has been calculated as 48.972m³. The dry weather flow has been calculated as 0.566l/s. The sewers are designed for a peak flow of 6 times dry weather flow (6*DWF) 3.355 l/s.

Figure 3.17: Foul Water Drainage Calculations

Category	Quantity	Flow Rate (l/per/day)	Daily Flow (l/day) +10% infiltration	DWF (l/s)	Design Peak Flow (6 * DWF) (l/s)
Standard residential	104	150	46,332	0.536	3.217
Creche	13 Staff 38 Children	50	2,640	0.030	0.138
Total			**48.972**	**0.566**	**3.355**

3.10 WATER SUPPLY

It is proposed to construct 1 new watermain line of 150mm diameter, also ramifications of 100mm and 90mm diameter to serve the proposed development. The proposed watermains will connect to the existing mains on Popes Road. Watermain sizing is in accordance with the Uisce Éireann Code of Practice for Water Infrastructure.

This feed will provide potable and firefighting water to the proposed development. A bulk water meter shall be provided at the site boundary at the location of the proposed connection to the existing watermain. The watermain layout will be designed in accordance with "Uisce Éireann Code of Practice for Water Infrastructure". All watermains are to be constructed in accordance with Uisce Éireann Code of Practice and the Local Authority's requirements. Fire coverage is to be reviewed and certified by the fire consultant.

To reduce the water demand on Local Authority water supplies and to reduce the foul discharge from the development, water conservation measures will be incorporated in the sanitary facilities throughout the development, e.g. dual flush toilets, monobloc low volume push taps and waterless urinals.

A Confirmation of Feasibility Ref. CDS25009768 has been received from Uisce Éireann. The proposed water connection to an external existing network is Feasible subject to infrastructure upgrade on the existing 3-inch diameter cast iron watermain located along Pope's Road. It is required to upsize approximately 80m of the existing 3-inch diameter cast iron watermain to a minimum of 150mm internal diameter to connect from a 6-inch diameter watermain pipe.

All relevant watermain information for the proposed development was included as part of a Design Submission for review by the Uisce Éireann Quality Assurance team. Following a pre-planning meeting under section 247 of the Planning and Development Act 2000, that took place on 10th of January 2025 to discuss the scope of the proposed development, it was agreed with Cork City Council that the planning submission could proceed prior to receiving the Statement of Design Acceptance from Uisce Éireann. PUNCH contacted Uisce Éireann in relation to progress of the review of the Design Submission on the 10th March 2026 and were advised that the review was now on-going.

3.11 CONSTRUCTION PHASE

Details of the approach to the construction phase are set out in the following subsections below. The approach to the construction phase will be subject to agreement with the construction contractor upon appointment. The agreed approach to the construction phase will be required to adhere to all standard best construction practices set out in the following subsections below.

3.11.1 Construction Sequence

As set out in more detail below, the construction of the project will be carried out in the following phases:

- Phase 1: Site Setup.
- Phase 2:Groundworks and Foundations.
- Phase 3: Superstructure Construction.
- Phase 4: Internal Works
- Phase 5: Landscaping and External Works.
- Phase 6: Testing, Commissioning and Inspections
- Phase 7: Final Handover and Occupation

3.11.2 Site Hoarding

The site area will be enclosed with hoarding details of which are to be agreed with CCC. Hoarding panels will be maintained and kept clean for the duration of the works. This will involve erecting hoarding around the proposed site perimeter in line with the finished development extents. A waterproof membrane will be fixed to the base of the hoarding and the ground. The available site footprint will enable the Contractor to set up the site compound within the site boundary.

3.11.3 Site Access

An existing vehicular access to the site is located on Pope's Road, at the western boundary. This will serve for all demolition, clearance, piling, and excavation works on the site.

Security personnel will be present at the entrance/exit of the site to ensure all exiting traffic will do so safely. A self-contained wheel wash system will be installed at the exit from the site, to minimise dirt being carried out into the public road. Side baffles prevent the dispersal of washed dirt, and an inbuilt reservoir collects all runoff from the wheel wash system. Water is filtered and recirculated within the system, reducing water usage. All washed solids are segregated by settlement and are either reused on site or removed and disposed of in the same manner as other spoil material.

A road sweeper will be employed as required to keep public roads around the site clean.

3.11.4 Excavation

The construction works will involve the excavation of material from the site.

All excavated material will need to be removed offsite for appropriate reuse, recovery and/or disposal. If material is removed off-site it could be reused as a by-product (and not as a waste). If this is done, it will be done in accordance with Regulation 27 of the European Communities (Waste Directive) Regulations 2011, as amended, which requires that certain conditions are met and that by-product notifications are made to the EPA via their online notification form. Excavated material should not be removed from site until approval from the EPA has been received. The potential to reuse material as a by-product will be confirmed during the course of the excavation works, with the objective of eliminating any unnecessary disposal of material. Clean inert material may be used as fill material in other construction projects or engineering fill for waste licensed sites. Beneficial reuse of surplus excavation material as engineering fill may be subject to further testing to determine if materials meet the specific engineering standards for their proposed end use.

It should be noted that a trial pit excavation report was completed by Ground Investigation Ireland Ltd, and it was found that no hydrocarbon contamination was present in all the soil samples collected from the site.

3.11.5 Site Compound

The compound area will be of hardstanding material.

All materials will be stored within the site compound. Any temporary stockpiles stored onsite will be covered to prevent runoff.

3.11.6 Work on Public Roads

Works on public roads outside the site will be co-ordinated and will be co-ordinated with Cork City Council and the adjoining businesses and residents. These works include: footpath replacement and/or repair works; public lighting; and improved public realm works. Any existing dropped kerbs, not intended to serve as a vehicle access route or pedestrian crossing, are to be removed and replaced with full height kerbs.

3.11.7 Hours of Work

Working hours during site clearance and construction shall be restricted to 08:00-18:00 hours on Monday to Fridays and to 08:00-16:00 hours on Saturdays. Activities outside these hours shall require the prior approval of the Planning Authority.

3.11.8 Demolition

The demolition stage will involve the demolition and removal of 4 no. existing buildings on site. The demolition areas are identified in the planning drawings provided with this application.

3.11.9 Construction Phase Water Management

During the construction phase surface water will drain to ground at existing greenfield areas surrounding the footprint of areas under construction. All surface water pooling in excavations etc will be pumped to a holding tank to be provided on site. From here the water will be pumped to a series of settlement tanks. These tanks will act as primary and secondary settlement. The settlement tanks will be of sufficient number and size to allow the necessary retention time for solids to settle. The discharge water from the final tank will be routed to the existing surface water system with approval from the local authority. Only settled and clean water will be permitted to be released from the settlement tanks to the existing surface water system. Visual checks of the pumping and settlement system will be carried out on a daily basis.

A self-contained wheel wash will be provided on site as per Section 3.5.3 above.

In addition to the above the following suite of standard and generic construction measures will be put in place to protect against the generation of contaminated waters at the project site during the construction phase:

- Storage – all equipment, materials and chemicals will be stored a minimum distance of 25m away from any surface water body. Chemical, fuel and oil stores will be sited on impervious bases and within a secured bund of 110% of the storage capacity, within the lay down area.

- The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall also be tested and demonstrated.

- All fuel oil fill areas will have an appropriate spill apron and spill kits will be provided on site.

- Vehicles and refuelling – standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Where practicable, refuelling of vehicles and machinery will be carried out on an impermeable surface in designated areas, well away from any surface waterbody.

- Maintenance – maintenance to construction plant will not be permitted on site, unless vehicles have broken down necessitating maintenance at the point of breakdown. All necessary pollution prevention measures will be put in place prior to commencement of maintenance in this instance;

- Concrete - Wet concrete operations will be carried out in dry conditions. Runoff from wastewaters or contaminated surface water runoff will be directed to construction phase surface water drainage system to be installed on site;

- Mess, sanitation and welfare facilities will be required during construction and will be located at the construction compound. Foul effluent will make use of chemical facilities with periodic removal for offsite disposal.

4.0 DESCRIPTION OF THE PROJECT SITE

4.1 OVERVIEW

The project site is located at Blackpool, Cork City. It is situated within the urban area of the city and is surrounded by existing residential development to the west and north, Collin's Barracks to the east and south and Christian Brothers College to the south. Military Cemetery is also located to the north of the project site.

A review of historical mapping (6-inch colour map (1829 to 1842; 6 inch Cassini, 1830's) and the 25 inch map, 1888 to 1913) has been completed for the project site and surrounding area.

The first 6-inch historical map of 1845 shows the sub-division of the site into three no. plots, which are still broadly apparent today. The western, northern and eastern boundaries of the site are as per the 1845 6-inch map. The two internal boundaries currently on site are broadly similar to those shown on the 1845 map. The 1845 map shows Pope's Hill road continuing along the southern boundary of the project site to the east with likely access provided around the northern boundary of Collin's Barracks. The only change apparent in the later 25 inch map from 1901 is the termination of the Pope's Hill lane within the site, with the connection to the east severed. By this time the existing terrace within the project site was in place and is labelled as Sandy Hill Terrace.

A review of aerial imagery from c. 2000 to current shows no land cover changes within the project site. Changes in land cover are apparent to the west of the site with the development of the existing residential c. 2004. Further residential development associated with the Glentrasna housing estate to the north of the project site is then shown on the aerial imagery for c. 2007. There has been no apparent change in land cover surrounding the project site since 2007.

that the site was surrounded by Lime and Salt Works to the South; Gas Works to the East, Haymarket to the North and Buildings to the west. The 25 inch historical map indicates that the site was surrounded by railway line to the east, buildings to the south; haymarket to the north and an asylum to the west.

4.2 HYROLOGY

The project site is located within the River Bride sub-catchment (Water Framework Directive (WFD) catchment code: Kiln_SC_010). No artificial drainage ditches or natural streams or rivers occur within or bounding the project site. The Glen River is the nearest natural watercourse to the project site and is located approximately 500m to the north. A subterranean culverted section of the Bride River flows from north to south, approximately 300m to the west of the project site. The Glen River flows from east to west through the Glen Valley Park to the north of the project site before passing through a culverted section upstream of its confluence with the Bride River. The Glen River drains into the Bride River which flows through an existing pipe culvert under the Ballyhooly Road flows before continuing to flow east to west and draining into the Bride River at Blackpool. The Glen River drains into the Cork City section of the Bride River to the west of Blackpool Shopping Centre. The Cork City section of the Bride River flows south from Blackpool, through culverted sections and drains into the River Lee at Christy Ring Bridge.

The River Lee in turn drains into Cork Harbour, within which is located the Cork Harbour SPA and the Great Island Channel SAC.

The pathway of the local hydrology in the wider sub-catchment area surrounding the project site is shown on Figure 3.1.

4.3 GROUNDWATER

Site investigation works have been completed at the project site to investigate depth to bedrock and infiltration rates to groundwater. The weathered sandstone bedrock was encountered between 2.50m and 4.70m below ground level. Standpipes were installed in 3 rotary core holes. Data loggers were installed in 2 rotary holes BH01 & BH03 which are located at the proposed detention basins with monitoring carried out between the 6th February 2026 and the 5th March 2026. This period coincided with a period of very wet weather with 27 days of rain in February 2026 with overall rainfall 119% of the long-term average. During this period the shallowest ground water level was recorded on the 12th February 2026 in Borehole 03 with groundwater rising to c. 2.24 below ground level. This coincided with the wettest period of weather. The groundwater level in this standpipe dropped to 4.06m at the end of the heavy rainfall period. As per the Drainage Impact Assessment (DIA) (provided under separate cover with the

planning application documentation), the existing groundwater levels satisfy the accepted minimum depths below infiltration SuDS devices.

4.4 EUROPEAN SITES

The project site is not subject to any statutory designations for nature conservation. The spatial relationship between the project site and SACs and SPAs occurring in the wider area surrounding the project site are shown on Figure 4.1 to 4.2 below. The nearest European Site to the project site is the Cork Harbour SPA, located approximately 3.4km to the southeast. The nearest SAC to the project site is the Great Island Channel SAC, located within areas of Cork Harbour approximately 8km to the east.

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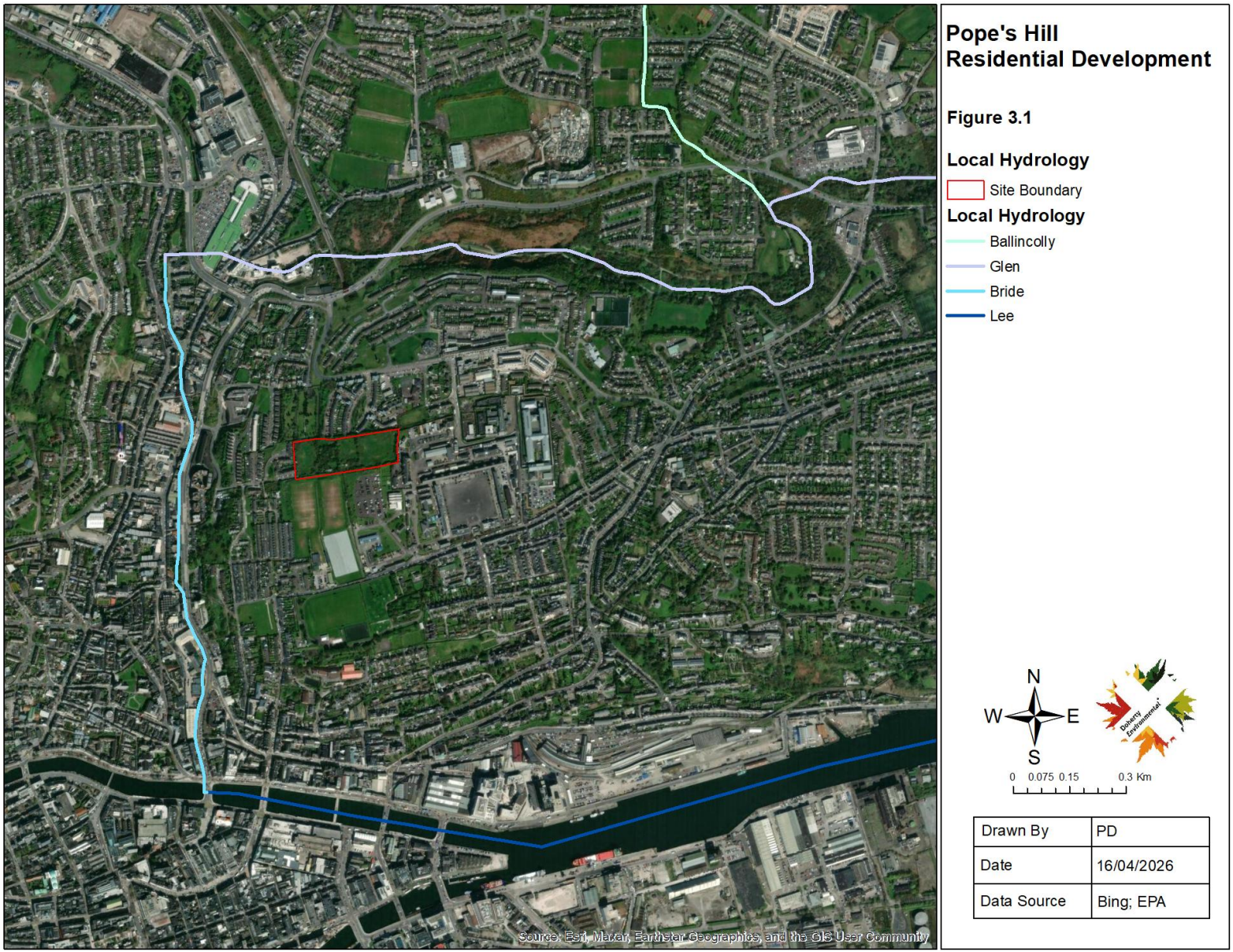
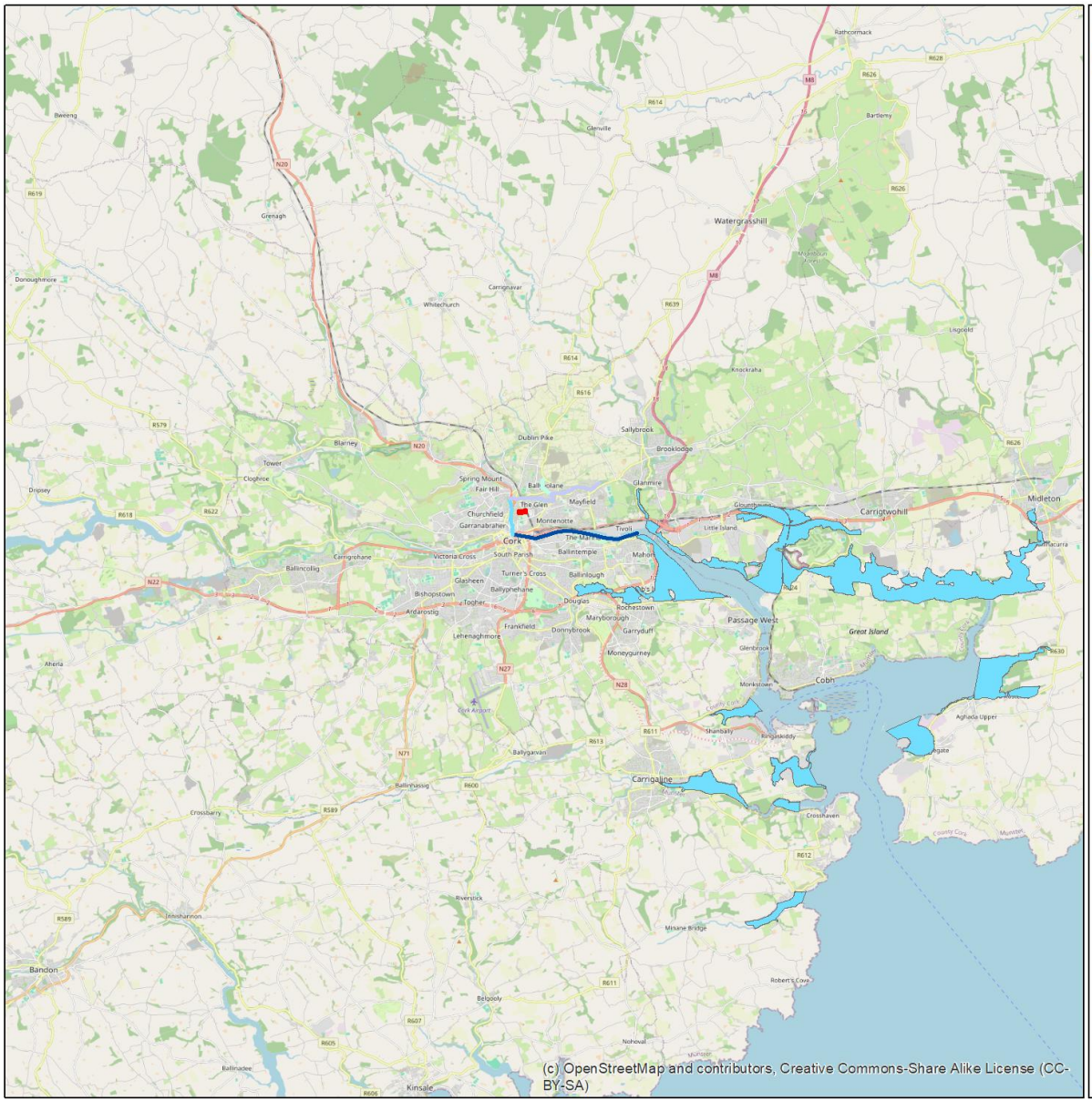

Pope's Hill
Residential Development
Figure 3.1
Local Hydrology
Site Boundary
Local Hydrology
Ballincolly
Glen
Bride
Lee
N
W
E
S
0 0.075 0.15 0.3 Km
Drawn By PD
Date 16/04/2026
Data Source Bing; EPA
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Pope's Hill Residential Development

Figure 4.1

SPAs in the Wider Surrounding Area

- Project Site
- Cork Harbour SPA

Local Hydrology

- Ballincolly
- Glen
- Bride
- Lee

N
W E
S

0 1.5 3 6 Km

Drawn By	PD
Date	11/08/2025
Data Source	Bing

Pope's Hill Residential Development

Figure 4.2

SACs in the Wider Surrounding Area

Project Site

SACs

Great Island Channel SAC

Blackwater River SAC

Local Hydrology

Ballincolly

Glen

Bride

Lee

N
W E
S

0 1.5 3 6 Km

Drawn By	PD
Date	11/08/2025
Data Source	OSM, NPWS

4.5 HABITATS & FLORA

The habitat at the project site comprised of:

Buildings and artificial surfaces BL3: this habitat within the project site consists of the delapidated dwellings and the one remaining intact dwelling associated with the Sandy Hill Terrace, as well as the existing areas of hardstand within the project site.

Hedgerows WL1: the hedgerows within the site are dominated by Crataegus monogyna, Prunus spinosa, Acer pseudoplatanus and Fraxinus excelsior. Acer pseudoplatanus is the dominant species along the hedgerows within the project site.

Treelines WL2: A treeline occurs along the southern verge of the Pope's Road access to the project site.

Scrub WS1: scrub habitat occurring at the project site is dominated by dense stands of Rubus fruticosus agg. along with Ulex europeaus that have colonised the verges of broad-leaved woodland and hedgerows.

Broad-leaved woodland WD1: the broad-leaved woodland at the project site is dominated by Acer pseudoplatanus.

Dry meadow GS2: species-poor dry meadow that is subject to relaxed management with high swards present dominate the land cover within the project site. The vegetation associated with this habitat is dominated by commonly occurring tussocky grasses such as Dactylus glomerata, Lolium perenne and Holcus lanatus along with commonly occurring herb species.

Amenity grassland GA2: a small area of amenity grassland occurs to the west of the intact dwelling within the project site. This is a well mowed and maintained short sward lawn surrounded by a treeline and woodland.

Flower Beds and Borders BC4: flower beds with non-native species occur to the west of the intact dwelling.

No protected non-volant mammals were observed on site during field surveys. Furthermore the project site does not offer suitable habitat for supporting resting or breeding places for protected non-volant mammals

The buildings within the project site were inspected during the 2024 bat activity season (in June and September) for their potential to function as roost sites for bats and for the presence of roosting bats.

The buildings on site are of low potential for supporting roosting bats.

No roosting bats were observed on site during a roost emergence survey completed at the project site during the 2024 bat activity season during the months of June and September.

Bat activity was very low during the night time roost survey completed on site with only one no. bat pass recorded of a Leisler's bat flying high overhead.

A survey of the project site for the presence of birds and nest sites was completed during the 2024 bird breeding season. A suite of commonly occurring passerine species were observed during the bird survey.

The project site does not provide suitable habitat for supporting bird species that are listed as special conservation interest bird species of SPAs in Ireland. As noted above the Cork Harbour SPA is the nearest SPA to the project site. This SPA is designated for its role in supporting populations of waterbirds. The grassland, woodland and built land habitats occurring at the project site do not provide suitable foraging, loafing or roosting habitat for such species.

5.0 IS THE PROJECT NECESSARY FOR THE CONSERVATION MANAGEMENT OF EUROPEAN SITES

The project has been described in Section 2 of the Screening Report and it is clear from the description provided that the project is not directly connected with or necessary for the future conservation management of any European Sites.

6.0 EUROPEAN SITES OCCURRING WITHIN THE ZONE OF INFLUENCE OF THE PROJECT

Current guidance (OPR, 2021) informing the approach to screening for Appropriate Assessment defines the zone of influence of a proposed development as the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. It is recommended that this is established on a case-by-case basis. For projects that are located within or immediately adjacent to European Sites, the relevant European Site should be automatically selected for consideration in the screening exercise. The project is not located within or adjoining any European Sites and as such no European Site are automatically selected for further consideration.

For European Sites located further afield it is recommended that a Source-Pathway-Receptor (SPR) framework is used to established whether or not European Sites occur within the zone of influence of the project (OPR, 2021). The European Sites occurring within the wider surrounding area comprise the Cork Harbour SPA and the Great Island Channel SAC. The Cork Harbour SPA is located approximately 3.4km (as the crow flies) overland to the southeast the project, whilst the Great Island Channel SAC is located approximately 8km (as the crow flies) overland to the east the project. The spatial relationship between these two European Sites and the project is shown on Figure 4.1 and Figure 4.2 above.

Other European Sites occur at a greater distance from the project site. These European Sites are not considered in this screening report as there is no connectivity or potential impact pathways linking the project site to these European Sites due to their location in separate hydrological catchments; the distance from the project site to these European Sites; the absence of suitable habitat at the project site to support mobile species; and/or the absence of any evidence of mobile species, such as special conservation interest bird species of SPAs, relying on the project site.

The next step of this Screening exercise is to identify whether or not the Cork Harbour SPA or the Great Island Channel SAC occur within the zone of influence of the project. This is established using the SPR model.

Using the SPR framework, the project, as described in Section 3 of this Screening Report, represents the elements that are required to be examined as the potential source of any impacts to these European Sites. The receptors represent European Sites and their associated qualifying features of interest. European Sites and their associated qualifying features are likely to occur in the zone of influence of the project only where pathways establish a link between the project and a European Site. An examination of pathways connecting the project site to European Sites is provided in Section 6.2 below. In advance of this an overview of the Cork Harbour SPA and the Great Island Channel SAC is provided in Section 6.2.

6.1 OVERVIEW OF EUROPEAN SITES

6.1.1 Cork Harbour SPA

Cork Harbour SPA is a large European Sites consisting of a number of discrete sections associated with river estuaries. The section most relevant to the project site is that occurring along either bank of the River Lee Estuary. Other areas of the SPA are located in the outer River Lee estuary and Cork Harbour and these are considered in the context of this NIS by examining the potential for wastewater generated at the project site to combine with existing effluent discharges from the Carrigrennan WWTP outfall to result in negative effects to water quality and associated adverse effects to wetland habitats and bird species of the SPA.

The special conservation interests of Cork Harbour SPA include a list of 23 wetland bird species and wetland habitats.

The special conservation interest bird species (with EU Birds Directive Code No. in parenthesis) are as follows:

- Little Grebe (Tachybaptus ruficollis) [A004]
- Great Crested Grebe (Podiceps cristatus) [A005]
- Cormorant (Phalacrocorax carbo) [A017]
- Grey Heron (Ardea cinerea) [A028]
- Shelduck (Tadorna tadorna) [A048]
- Wigeon (Anas penelope) [A050]

- Teal (Anas crecca) [A052]
- Pintail (Anas acuta) [A054]
- Shoveler (Anas clypeata) [A056]
- Red-breasted Merganser (Mergus serrator) [A069]
- Oystercatcher (Haematopus ostralegus) [A130]
- Golden Plover (Pluvialis apricaria) [A140]
- Grey Plover (Pluvialis squatarola) [A141]
- Lapwing (Vanellus vanellus) [A142]
- Dunlin (Calidris alpina) [A149]
- Black-tailed Godwit (Limosa limosa) [A156]
- Bar-tailed Godwit (Limosa lapponica) [A157]
- Curlew (Numenius arquata) [A160]
- Redshank (Tringa totanus) [A162]
- Black-headed Gull (Chroicocephalus ridibundus) [A179]
- Common Gull (Larus canus) [A182]
- Lesser Black-backed Gull (Larus fuscus) [A183]
- Common Tern (Sterna hirundo) [A193]

The wetland habitats of the SPA include intertidal mudflats, saltmarshes and estuaries.

6.1.1.1 Documented threats & pressures

The NPWS have documented threats and pressures to the Cork Harbour SPA in their Natura 2000 Data Return Form for this SPA. The threats and pressures to this SPA have been ranked in terms of low, medium and high impacts. These threats and pressures and their associated impact rank are as follows:

- Nautical sports (medium impact);
- Shipping lanes (medium impact);
- Fertilisation (medium impact);
- Leisure fishing (medium impact);

- walking, horseriding and non-motorised vehicles (medium impact);
- Marine and Freshwater Aquaculture (High Impact);
- Industrial or commercial areas (high impact);
- Roads, motorways (high impact);
- Urbanised areas, human habitation (high impact);
- Port areas (high impact).

In addition to the threats and pressures listed above the Conservation Objectives Supporting Documentation (NPWS, 2014) for the Cork Harbour SPA has identified activities within or in the vicinity of the River Lee Estuary and the associated sub-sites that have the potential to result in a disturbance effect to wetland bird species. The activities that have the potential to result in disturbance events to birds within these subsites are as follows:

1. Shipping channels;
2. Railway;
3. Power boating and water skiing; and
4. Walking, including dog walking.

6.1.1.2 Conservation Objectives

Site-specific Conservation Objectives for the Cork Harbour SPA have been published by the NPWS (NPWS, 2014a). The overall Conservation Objectives for the special conservation interest bird species of the Cork Harbour SPA is to maintain the favourable conservation status of bird species for which the SPA is designated. The favourable conservation status of bird species will be achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and

- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis

Favourable conservation status of wetland habitats is achieved when:

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

The site-specific Conservation Objectives for the Cork Harbour SPA aim to define the favourable conservation status its special conservation interest bird species. The site-specific Conservation Objectives for these species occurring within the sphere of influence of the project are outlined in Table 6.1 below.

Table 6.1: Site-Specific Conservation Objectives for Cork Harbour SPA Special Conservation Interest Species and the Great Island Channel SAC qualifying habitats

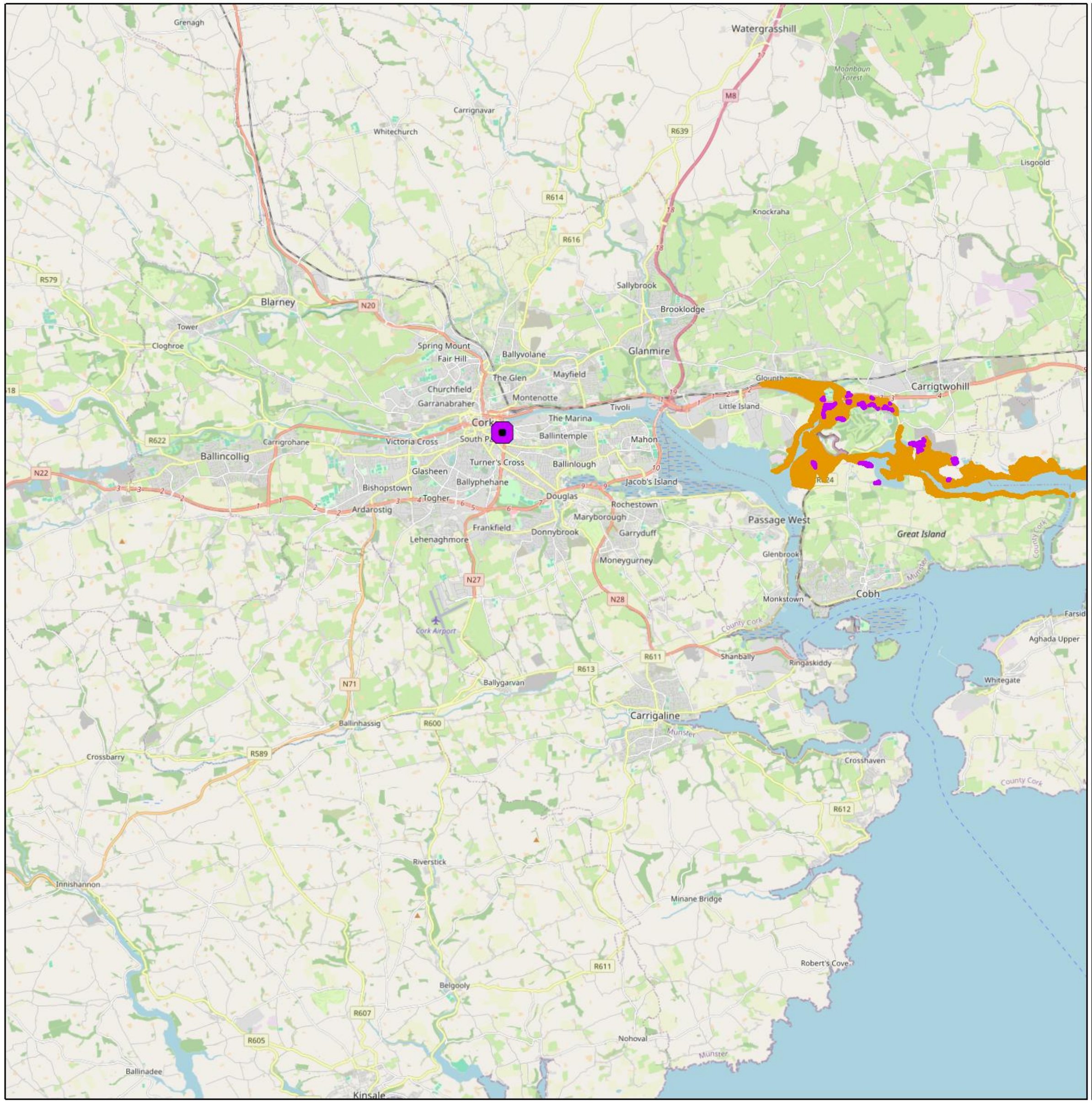
Attribute	Measure	Target	Notes
Cork Harbour SPA			
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Number and range of areas used by waterbirds	No significant decrease in the range, timing and intensity of use of areas by light-bellied brent	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five

		geese, Oystercatcher, Black-tailed Godwit, Dunlin and Redshank other than that occurring from natural patterns of variation	of the conservation objectives supporting document.

6.1.2 Great Island Channel SAC

The Great Island Channel SAC is designated for its role in supporting two no. qualifying Annex 1 habitats, namely, tidal mudflats and sandflats and Atlantic salt meadows. The distribution of these habitats within the SAC is shown on Figure 6.1. Site-specific Conservation Objectives for the Cork Harbour SPA have been published by the NPWS (NPWS, 2014b).

The site-specific Conservation Objectives for the Cork Harbour SPA aim to define the favourable conservation status its special conservation interest bird species. The site-specific Conservation Objectives for these species occurring within the sphere of influence of the project are outlined in Table 6.2 below.



Anglesea Terrace Residential Development

Figure 6.1

Location of Qualifying Habitats of Great Island Channel SAC with respect to the Project Site

- Project Site
- Atlantic Saltmarsh
- Tidal Mudflats & Sandflats

N W E S

0 1.25 2.5 5 Km

Drawn By	PD
Date	07/06/2023
Data Source	OSM; NPWS

Table 6.2: Site Specific Conservation Objectives for the Great Island Channel SAC

Attribute	Measure	Target
Mudflats		
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes.
Community distribution	Hectares	Conserve the following community type in a natural condition: Mixed sediment to sandy mud with polychaetes and oligochaetes community complex.
Saltmarsh		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession.
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes.
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain/restore creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% area outside creeks vegetated

Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stop	Maintain range of sub- communities with typical species listed in SMP

6.2 IDENTIFICATION OF PATHWAYS

Using the SPR model ecological and functional pathways are set out in Table 6.3 below and those pathways that could conceivably connect the project to the Cork Harbour SPA and the Great Island Channel SAC is provided.

Table 6.3: Identification of Pathways

Pathway	Does the Pathway Connect the Project to Other European Sites	Reason
Hydrological pathway	Yes	A hydrological pathway connects the project site to this SPA. Surface water runoff generated at the project site during the construction phase and operation phase will eventually be discharged to the River Lee Estuary Lower approximately 6km to the southeast of the project site via existing surface water sewer infrastructure and the hydrological pathway of the Bride River and the Lower River Lee. During the construction and operation phases, wastewater generated at the project site will be directed to the existing combined sewer network and will be conveyed to the Carrigrennan WWTP for treatment. The outfall of the Carrigrennan WWTP is

Pathway	Does the Pathway Connect the Project to Other European Sites	Reason
		located in Lough Mahon to this south of this SPA. The outfall location is buffered from the nearest point of the SPA by over 500m of transitional waters. However tidal flows may result in the movement of discharge effluent from the WWTP outfall into this SPA.
Noise & Vibration	No	Noise emissions from the project during the construction phase will not have the potential to function as a pathway between the project and the Cork Harbour SPA or the Great Island Channel SAC. Both European Sites are located at remote distances from the project site, across large areas of existing urban land cover. There will be no potential for the project to result in perceptible changes to noise levels at or in the vicinity of either European Site.
Air Emissions	No	The project is located at a distance from the Cork Harbour SPA and the Great Island Channel SAC that places both European Sites outside the zone of influence of any potential emissions to air generated as a result of the project. IAQM (2024) provides a risk assessment for ecological impacts arising from dust deposition. European Sites are ranked as highly sensitive sites and the risk to highly sensitive sites ranges from high (at less than 20m from source) and medium (at less than 50m from source), while low risks, representative of insignificant and de-minimis

Pathway	Does the Pathway Connect the Project to Other European Sites	Reason
		effects, arise at distances greater than 50m from source. Given that there are no European Sites occurring within 50m of project site, no air emissions generated by the project will have the potential to function as pathways between the project and European Sites. As such this pathway is not considered further in this screening exercise.
Light Emissions	No	The project site is located within the urban centre of Cork City and will not result in changes to the night time lighting at and surrounding the project that will represent a change from the baseline artificial lighting in the wider surrounding area. As such no light emission pathway are considered further in this screening exercise.
Visual Emissions	No	Given the distance of over 3km from the nearest European Site there are no visual emissions from the project site to European Sites in the surrounding area.
Mobile species pathway	No	Special conservation interest bird species of the Cork Harbour SPA do not rely on the project for foraging or roosting. There is no suitable habitat at the project site to support such species and as such no mobile

Pathway	Does the Pathway Connect the Project to Other European Sites	Reason
		species pathway connects the project to the Cork Harbour SPA.

A hydrological pathway is identified as connecting the project site to the Cork Harbour SPA.

A hydrological pathway is identified as connecting the project site to the Great Island Channel SAC. The hydrological pathway connecting the project to the Great Island Channel SAC is considered to be very tenuous given the distance to this SAC from the project site and the distance to this SAC from the Carrigrennan wastewater treatment plant outfall at Cork Harbour to which wastewater generated at the project site will be directed.

7.0 EXAMINATION OF PATHWAYS

7.1 HYDROLOGICAL PATHWAY

7.1.1 Surface Water

Surface water runoff will be generated at the project site during the construction phase and the operation phase.

With respect to surface water runoff generated during the construction phase it is proposed that all surface water, aside from excavations, will drain to ground. Where surface water pools in excavations this water will managed in line with standard best practice management techniques for the control of surface waters from excavations at construction sites. This will involve the pumping of pooled water from the excavations to a series of settlement tanks and once settled, treated and clean will be discharged to the existing surface water drainage network which will ultimately be released to the hydrological pathway connecting the project to Cork Harbour.

It is noted that standard best practice measures, to which all construction works will adhere, are identified in Section 3.11.9 above. The implementation of these measures shall provide protection against any potential pollution being generated at the project site. The measures set out in Section 3.11.9 are consistent with Objective 9.5, Objectives 9.6 and Objectives 9.7 of the Cork City Development Plan 2022 – 2028 and their full implementation will in turn protect against the generation of polluted surface water runoff during the construction phase of the project.

In view of the standard approach to the management of surface water runoff generated during the construction phase, which can be considered as part of this screening exercise[2], it is found that the construction phase of the project will not pose a risk to the water quality of the River Lee and as such no functional hydrological impact pathway will connect the project to the Cork Harbour SPA during the construction phase of the project.

Surface water will be generated during the operation phase. As described in Section 3.2 the operation phase surface water management system has been designed to allow for drainage to ground as well as drainage to the surface water drainage pipe infrastructure which will connect to the existing surface water drainage network and as such the hydrological pathway connecting the project to Cork Harbour. The operation phase surface water system has been designed in full accordance with the principles of SuDS such that compliance with Objective 9.4 of the Cork City Development Plan 2022 - 2028 is achieved. As part of the DIA for the project an assessment of the operation phase pollution hazard associated with the development has been completed. This assessment is based on the CIRIA Simple Index Approach: Land Use Hazard Indices. The land uses set out in the Simple Index Approach relevant to the project comprise residential roofs; car parks; and pedestrian areas. The pollution hazard level of these land uses, in the absence of SuDS design measures, are set out in Table 7.1 below.

[2] See Section 1.2 regarding EC (2021) Guidelines & Judgement C-721/21 of the 15th June 2023

Table 7.1: CIRIA Simple Index Approach Pollution Hazard Indices & Levels for Project Land Uses

Land Use	TSS	Metals	Hydrocarbons	CIRIA Pollution Hazard Level
Residential roofs	0.2	0.2	0.05	Very Low
Residential Car Parks	0.5	0.4	0.4	Low
Pedestrian areas	0.5	0.4	0.4	Low

As set out in the DIA report, with the application of SuDS design measures, the Pollution Hazard Indices and associated levels are reduced to negligible levels (i.e. all indices are below 0 - see Table 7.2) that will not have the potential to pose a risk to water quality downstream in the receiving surface water drainage infrastructure and receiving waterbodies along the hydrological pathway between the project site and Cork Harbour.

Table 7.2: Pollution Hazard Indices for different Land Uses

Land Use	TSS	Metals	H-C
Residential roofs	Detention Basin		
	0.2-0.5 = -0.3	0.2-0.5 = -0.3	0.05 - 0.7 = -0.2
Residential Car Parks	Conventional gully and pipe drainage		
	0.7 – 1.0 = -0.3	0.6 - 1.0 = -0.4	0.7 - 1.0 = -0.3
Pedestrian areas	Bioretention System		
	0.5 - 0.8 = -0.3	0.4 - 0.8 = -0.4	0.4 - 0.8 = -0.4
Pedestrian areas	Conventional gully and pipe drainage		
	0.5 – 1.0 = -0.5	0.4 - 1.0 = -0.6	0.4 - 1.0 = -0.6

In view of the proposed surface water management design, which has been prepared to comply with Objective 9.4 of the Cork City Development Plan, and the absence of any surface water discharges with potential to result in pollution to receiving waterbodies during the operation phase, it is found

that the operation phase of the project will not pose a risk to the water quality of the River Lee and as such no functional hydrological impact pathway will connect the project to the Cork Harbour SPA during the construction phase of the project.

7.1.2 Wastewater

Wastewater generated during the construction and operation phase will be directed to the Carrigrennan Wastewater Treatment Plant, prior to release to Lough Mahon. A review of the 2024 Annual Environmental Report (AER) (Uisce Éireann, 2023) for the Carrigrennan wastewater treatment plant has been completed. The 2024 AER concluded that the discharge from the wastewater treatment plant does not have an observable impact on the water quality of the receiving waterbody and that the discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.

It is further noted that Uisce Éireann have confirmed that there is sufficient capacity at the Carrigrennan wastewater treatment plant to treat additional wastewater loads generated by the project.

In view of the above it is found that the wastewater generated by the project will not have the potential to negatively affect the water quality of the receiving waterbody and on this basis no function hydrological impact pathway connects the project to the Cork Harbour SPA or the Great Island Channel SAC.

8.0 EXAMINATION OF IN-COMBINATION EFFECTS

The cumulative impact of the project with any/all relevant other planned or permitted developments requires consideration as part of this Screening Report for Appropriate Assessment. Existing developments that are already built and in operation contribute to the characterisation of the baseline environment. The precise timeline for the construction of permitted developments is not known and as such, for the purposes of this Screening Report, the precautionary principle has been applied by assessing the potential for cumulative construction impacts occurring in tandem with the proposed development. The potential cumulative impacts that could arise as a result of the construction phase of this project combining with other construction projects relates to emissions to surface water and namely the River Lee.

With respect to potential emissions from all construction sites, it is noted that the works contractors for all planned or permitted developments will be obliged to ensure that measures are in place to protect water quality in compliance with legislative requirements for receiving water quality (European Communities Environmental Objectives (Surface Water) Regulations (S.I. 272 of 2009 and S.I. 77 of 2019). It is further noted that all other construction projects overlapping with the construction phase of the current project will only be permitted where the Planning Authority has concluded that such projects do not pose a risk to European Sites or significant effects to the environment, including surface water quality. Standard measures will be implemented for both the construction phase and the operation phase of the current project and such measures will be required, as a minimum by the consenting authority for all other projects in the vicinity of the current. As set out in this Screening Report it has been found that with the implementation of such measures the project will not pose a risk to the water quality of the River Lee or the status of the Cork Harbour SPA or the Great Island Channel SAC downstream. The implementation of such standard measures for all adjacent projects will also ensure that the current project cannot combine with these other projects to result in negative impacts to the water quality of the River Lee and likely significant effects to the Cork Harbour SPA and Great Island Channel SAC downstream.

With respect to the operation phase of the project it is noted that Uisce Éireann have confirmed that sufficient capacity is available at the Carrigrennan wastewater treatment plant to adequately treat all wastewater generated during the operation phase of the project. Uisce Éireann have also reported that the discharges from the wastewater treatment plant do not have an observable effect on the Water Framework Directive status of Cork Harbour. In view of this the operation phase of the project will not have the potential to combine with other projects to result in in cumulative negative effects to the water quality of Cork Harbour or the status of the Cork Harbour SPA and/or the Great Island Channel SAC.

9.0 SCREENING MATRIX

The examination of the potential for the project to result in likely significant effects to the Cork Harbour SPA and the Great Island Channel SAC is undertaken following the guidance set out in the EC 2021 guidelines for screening for Appropriate Assessment. These guidelines provide a screening matrix against which projects or land use activities can be examined. Table 9.1 provides this screening matrix and an examination of the project's potential to result in likely significant effects to these two European Sites.

Table 9.1: Screening Matrix

Matrix	Examination
Brief description of the project or plan	The project and associated activities are described in Section 3 above.
Brief description of the European Sites	The European Sites occurring in the wider surrounding area are identified in Section 6 above. The qualifying features of interest of these European Sites are set out in Section 6.
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Sites.	In view of the examination provided in Sections 6, 7 and 8 above it can be objectively concluded that no impact pathways connect the project to the Cork Harbour SPA and the Great Island Channel SAC and that no element of the project will, alone or in-combination with other plans or projects, have the potential to result in likely significant effects to these European Sites.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Sites site by virtue of: • size and scale; • land-take; • distance from the Natura 2000 site or key features of the site; • resource requirements (water abstraction etc.); • emissions (disposal to land, water or air); • excavation requirements; • transportation requirements; • duration of construction, operation, decommissioning, etc.;	The project will not have the potential to result in direct, indirect or secondary impacts to European Sites. The Cork Harbour SPA and Great Island Channel SAC and all other European Sites in the wider surrounding area have been identified to be not at risk of likely significant effects as a result of the project.
Describe any likely changes to the site arising as a result of: • reduction of habitat area: • disturbance to key species;	The Cork Harbour SPA and Great Island Channel SAC and all other European Sites in the wider surrounding area have been identified to be not at risk of likely significant effects as a result of the proposed event.

• habitat or species fragmentation; • reduction in species density; • changes in key indicators of conservation status	The project will not have the potential to result in changes to the Annex 1 habitats of the Great Island Channel SAC, wetland habitats of the Cork Harbour SPA or any other European Sites arising from these factors listed in Column 1 opposite. The project will not result in the reduction of habitat area for special conservation interest bird species or waterbirds of SPAs in the wider surrounding area. The project will not result in habitat or species fragmentation for any Annex 1 habitats or habitats relied upon by Annex 2 qualifying species or special conservation interest bird species of the surrounding European Sites. Examples of key indicators of the conservation status of bird species of surrounding SPAs are population size; distribution; habitat structure; foraging habitat and prey availability etc. Key indicators of the conservation status for the Annex 1 habitats of these European Sites include habitat area, habitat distribution, vegetation supported by the habitat, water quality, nutrient status etc. Given that the European Sites surrounding the project are not at risk of likely significant effects, as established above, there will be no potential for the project to undermine the conservation status and conservation objectives for any European Sites.
Describe any likely impacts on the European Sites site as a whole in terms of:	For reasons set out above the project will not have the potential to interfere with key relationships that define the structure and function of European Sites.

interference with the key relationships that define the structure of the site; interference with key relationships that define the function of the site	
Provide indicators of significance as a result of the identification of effects set out above in terms of: • loss; • fragmentation; • disruption; • disturbance; • change to key elements of the site (e.g. water quality etc.).	For reasons set out above the project will not have the potential to result in such effects to European Sites.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	The project will not have the potential to result in likely significant effects to European Sites.

10.0 SCREENING CONCLUSION

During the preparation of this Screening Report for Appropriate Assessment of the proposed Pope's Hill residential development project, it was found that 2 European Sites, namely the Cork Harbour SPA and the Great Island Channel SAC, occurring within the wider area surrounding the project site are connected to the project site via a hydrological, noise and mobile species pathways.

An examination of the project has been carried out to determine whether or not it will have the potential to result in likely significant effects to these European Sites. This examination has found that no impact pathways will connect the project to the Cork Harbour SPA and the Great Island Channel SAC and that the project will not have the potential, alone or in-combination with other plans or projects, to result in adverse impacts to European Sites.

In light of the findings of this report it is the considered view of the authors of this Screening Report for Appropriate Assessment that it can be concluded by the competent authority that the project will not, alone or in-combination with other plans or projects, have a significant effect on any European Sites in view of their Conservation Objectives and on the basis of best scientific evidence and there is no reasonable scientific doubt as to that conclusion.

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