MAGLIN LRD

VOLUME I

Non-Technical Summary

McCutcheon Halley
CHARTERED PLANNING CONSULTANTS

BSM Brady Shipman Martin Built. Environment.
Registered Landscape Architect 2025-26
MHL
MOR MALONE O'REGAN CONSULTING ENGINEERS
Trinity Consultants
awnconsulting
viridus CONSULTING
Lane Purcell Archaeology LPA
JOHN CRONIN & ASSOCIATES ARCHAEOLOGY | CONSERVATION | HERITAGE | PLANNING

TABLE OF CONTENTS

Table of Tables

Table of Figures

CHAPTER 1 | Introduction

1.1 Introduction

Article 5(1)(e) of the EIA Directive requires the project proponent to include a Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIAR) and it is transposed into Irish law under article 94(c) of the Planning and Development Regulations 2001, as amended. The term 'non-technical' indicates that this summary should not include technical terms, detailed data and scientific discussion, that detail is presented in Volume II, the EIAR.

This Non-Technical Summary provides a concise, but comprehensive description of the Project, its existing environment, the effects of the project on the environment, the proposed mitigation measures, and the proposed monitoring arrangements, where relevant. The NTS highlights any significant uncertainties about the project. It explains the development consent process for the Project and the role of the EIA in that process.

It is important to highlight that the assessments that form part of the EIAR were undertaken as an iterative process rather than a one-off, post-design environmental appraisal. Findings from the individual assessments have been fed into the design process, resulting in a project which achieves a 'best fit' within the environment.

A detailed description of the project is provided in Chapter 2. To summarise, the applicant seeks permission for the development comprising a total of 1,150 no. residential units, a creche, 3 no. commercial units and all associated site development works.

1.2 Site Location and Description

The subject site is located in Maglin (townland), to the south of the Ballincollig town centre and to the north of the N22. An existing housing development, Heathfield Estate, is located to the north of the site. Cork City Centre is c. 10km to the east of the site. The existing access to the site is from Maglin road to the west.

The site currently consists of agricultural fields and field boundaries and is within the Maglin expansion area identified by the Cork City Development Plan 2022-2028. Within this plan the site is zoned for residential use.

1.3 Report Structure

This EIAR is prepared according to the 'Grouped Format Structure' as described in the Guidelines on information to be contained in Environmental Impact Statements (EPA, 2022). This means that each topic is considered as a separate section. The advantages of using this format are that it is easy to investigate a single topic and it facilitates easy cross-reference to specialist studies.

The EIAR is sub divided into 3 no. volumes as follows:

- **Volume I** Non-Technical Summary;
- **Volume II** Environmental Impact Assessment Report; and
- **Volume III** Appendices to Environmental Impact Assessment Report.

Volume 1, the Non-Technical Summary (NTS), provides an overview of the project and the EIAR in non-technical terms. The summary is presented similar to the grouped format structure and discusses each environmental topic separately.

Volume 2, the main EIAR, provides the detailed information on the proposed development and the relevant environmental topics, with technical and detailed investigations of the topic areas as appropriate. This volume is prepared in the grouped format structure as it allows specialist studies to be completed for environmental topics in chapters.

Volume 3, the Appendices, contains supporting documentation and information on the EIAR.

Volume II is presented as 19 chapters as follows:

Chapter	Chapter Title	Consultant
1	Introduction	McCutcheon Halley Planning
2	Project Description	McCutcheon Halley Planning
3	Alternatives Considered	McCutcheon Halley Planning
4	Population and Human Health	McCutcheon Halley Planning
5	Landscape & Visual Impact	Brady Shipman Martin
6	Material Assets: Traffic & Transport	MHL Consulting Engineers
7	Material Assets: Built Services	MHL Consulting Engineers / Malone O'Regan
8	Material Assets: Waste	Malone O'Regan
9	Land, Soil & Geology	Viridus Consulting
10	Hydrology & Hydrogeology	Viridus Consulting
11	Biodiversity	Malone O'Regan
12	Noise & Vibration	AWN Consulting
13	Air Quality	AWN Consulting
14	Climate	AWN Consulting
15	Cultural Heritage: Archaeological Heritage	Lane Purcell Archaeology
16	Cultural Heritage: Built Heritage	John Cronin & Associates
17	Screening for Major Accidents	McCutcheon Halley Planning
18	Significant Interaction of Impacts	McCutcheon Halley Planning
19	Summary of Mitigation Measures and Monitoring	McCutcheon Halley Planning

1.4 Requirement for Environmental Impact Assessment

Proposed development which falls within one of the categories of development specified in Schedule 5 of the Planning and Development Regulations 2001, as amended, which equals or exceeds, a limit, quantity, or threshold prescribed for that class of development must be accompanied by an EIAR.

The proposed development falls within the classes of development set out in Schedule 5, Part 2, 10(b)(i) and 10(b)(iv):

10. Infrastructure projects

(b)(i) Construction of more than 500 dwelling units.

(b)(iv) Urban Development which would involve an area greater than 2 hectares in the case of business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

(In this paragraph, 'business district' means a district within a copy or town in which the predominant land use is retail or commercial use)

The proposed Large Scale Residential Development (LRD) is for 1,150 no. residential units on a site area of c. 28.7 hectares. Therefore, a mandatory EIA is required under the provisions of Part 2, 10(b)(i) and (b)(iv) as the proposed development exceeds the threshold of 500 units set out in 10(b)(i), and as the proposed development site exceeds the threshold of 20ha elsewhere set out in 10(b)(iv).

1.5 Competency

It is a requirement that the EIAR must be prepared by competent experts. For the preparation of this EIAR, the Applicant engaged McCutcheon Halley Chartered Planning Consultants (MH Planning) to direct and coordinate the preparation of the EIAR. A team of qualified specialists were engaged to prepare individual chapters.

The qualifications of consultants responsible for each discipline is provided in the introduction to each chapter.

1.6 Methodology

Each chapter of this EIAR assesses the direct, indirect, cumulative, and residual impact of the proposed development for both the construction and operational stage of the proposed development.

The identified quality, significance, and duration of effects for each aspect is primarily based on the terminology set out in the EPAs Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022) as summarised in the following table:

Table 1.1 Impact Rating Terminology

Quality of Effect	
Positive	A change which improves the quality of the environment (for example, by increasing species diversity, or the improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative/Adverse Effects	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
Significance of Effect	
Imperceptible	An effect capable of measurement but without significant consequences.
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight Effect	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effect	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effect	An effect which, by its character, magnitude, duration, or intensity, alters a sensitive aspect of the environment.
Very Significant Effect	An effect which, by its character, magnitude, duration, or intensity, significantly alters most of a sensitive aspect of the environment.
Profound Effect	An effect which obliterates sensitive characteristics.

Duration of Effects	
Momentary	Effects lasting from seconds to minutes
Brief	Effects lasting less than a day
Temporary	Effects lasting less than a year
Short-term	Effects lasting one to seven years
Medium-term	Effects lasting seven to fifteen years
Long-term	Effects lasting fifteen to sixty years
Permanent	Effects lasting over sixty years
Reversible	Effects that can be undone, for example through remediation or restoration
Frequency	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).
Extent and Context of Effects	
Extent	Describe the size of the area, the number of sites and the proportion of a population affected by an effect.
Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?).
Probability of Effects	
Likely	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Unlikely	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Type of Effects	
Indirect (Secondary or Off-site)	Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
Cumulative	The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
Do-Nothing	The environment as it would be in the future should the subject project not be carried out.
Worst-Case	The effects arising from a project in the case where mitigation measures substantially fail.
Indeterminable	When the full consequences of a change in the environment cannot be described.
Irreversible	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
Residual	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
Synergistic	Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).

1.7 Consultation

The following prescribed bodies have been consulted in relation to the general scope of the EIAR.

- An Taisce
- Bat Conservation Ireland
- Bord Gáis
- Environmental Protection Agency
- Fáilte Ireland
- The Health Service Executive (HSE)
- The National Transport Authority (NTA)
- Department of Education
- Department of Housing, Local Government, and Heritage
- Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media
- Geological Survey Ireland
- The Health and Safety Authority (HSA)
- The Heritage Council
- Inland Fisheries Ireland
- Office of Public Works (OPW)
- Transport Infrastructure Ireland (TII)
- Uisce Éireann
- ESB

Responses received are presented in Appendix 1.1

CHAPTER 2 | Project Description

2.1 Introduction

The EIA Directive requires that an EIAR includes a description of the project comprising information on the site, design, size and other relevant features of the project. Recital 22 of the 2014 Directive requires that

"In order to ensure a high level of protection of the environment and human health, screening procedures and environmental impact assessments should take account of the impact of the whole project in question, including, where relevant, its subsurface and underground, during the construction, operational and, where relevant, demolition phases".

This chapter satisfies the requirements of the EIA Directive, providing detail on the location, size and characteristics of the proposed project.

2.2 Description of Existing Environment

The subject site of c. 28.7 ha is located south of Ballincollig town centre and occupies a green field site beside the N22 National Road. In the immediate context of the site is Maglin House, a two-storey, L-shaped farmhouse dating from the late 18th / early 19th century, surrounded by a traditional farmyard and associated outbuildings located on the subject site and Cork City Centre is c. 10km west of the site. The site is located near a variety of facilities in Ballincollig town within a 20-minute walking distance.

The site is currently in agricultural use, with generally flat topography and some sloping along the southern and eastern boundaries. To the north lies agricultural land, and the site is bounded to the west by Maglin Road, along which the site has approximately 170 metres of frontage.

2.3 Description of Proposed Development

The proposed Large Scale Residential Development comprises the construction of 1,150 no. residential units (638 no. dwelling houses and 512 no. apartments/duplex units), a creche, 3 no. commercial units and all associated site development including vehicular and pedestrian access, drainage, footpaths & cycle lanes, landscaping, amenity and open space areas, boundary treatments, bicycle and car parking, bin storage, the undergrounding of the existing 38kv overhead line currently traversing the site, public lighting and all other ancillary development.

The proposed 1150 no. units will provide a density of 50.62 units per hectare which is in line with national policy for increased residential densities. The scheme proposes a mix of 4-bed (10.35%), 3-bed (33.48%), 2-bed (35.74%), and 1-bed (20.43%) units in an attempt to provide housing across all age profiles and household sizes.

These units are organised into 3 no. character areas to provide three distinct areas within the scheme. Each area is distinguished by the design and materials used in the proposed houses.

The proposed development includes a crèche of 1305 sqm with capacity for 227 no. childcare spaces. This facility is located within 'Apt Block C' on the western side of the site, to the northwest of Maglin House.

Three no. of commercial units are proposed at the ground floor of Block E, fronting onto a new plaza space. This plaza is intended to create a strong connection between the triangular corner of the site and adjoining future developments, helping to establish a vibrant neighbourhood centre

Connectivity is one of the central design principles of the proposed scheme. The current layout is therefore crossed by several connections and links which connect to the adjacent areas. A new link road will provide direct vehicular access, incorporating cycle lanes on both sides and accommodating future public transport via bus lanes. Within the site, a hierarchy of streets, local roads, and homezones is proposed in accordance with DMURS best-practice guidelines, prioritising cyclists and pedestrians wherever possible. Dedicated shared pedestrian and cycle routes follow the retained hedgerow corridors, connecting Character Areas, open spaces, and main access routes.

The proposed development will provide 1,212 no. car parking spaces distributed through in-curtilage, communal and podium parking. Houses with private rear gardens will have ample space to store bicycles securely, ensuring secure and convenient storage. Apartment and duplex residents will have access to purpose-built, enclosed bicycle stores.

The proposed development delivers a series of high-quality, accessible public open spaces that are designed to be overlooked by residential units, ensuring passive surveillance and a positive aspect throughout. The proposed quantum of public open space complies with the requirements of the Cork City Development Plan (CCDP).

The design places emphasis on usability and inclusivity. Paved footpaths throughout the development are designed for universal access, accommodating disabled users, runners, walkers, and buggies. Ramped access points are incorporated to ensure that all public open spaces are fully accessible.

Each dwelling is provided with a private rear garden, that are dual aspect and have an adequate separation distance which are consistent across the site between opposing first floor rear windows.

The landscaping strategy for the development prioritises the retention of existing natural features. As much of the native hedgerow and tree boundaries within the site as possible are being retained and supplemented with additional native planting.

The proposal incorporates a Sustainable Urban Drainage Systems, (SuDS) approach to surface water management throughout the site.

There will be 4 no. new substations constructed to support the proposed development.

Construction of the residential development will take place over 4 phases, and it is estimated to take 10 years to complete

CHAPTER 3 | Alternatives Considered

3.1 Introduction

This chapter of the EIAR provides details on the evolution of the scheme design through the reasonable alternatives examined and provides an outline of the main alternatives considered and justification for the final proposed development.

The chapter has been prepared by McCutcheon Halley Planning Consultancy.

3.2 Do Nothing Scenario

Under a 'do-nothing' scenario, the subject site would remain in its current condition as a greenfield site, and it would not fulfil its residential zoning objective. Accordingly, there would be a negative/adverse effect on population, as this approach would fail to address the shortage of houses in Ballincollig and the wider Cork City Catchment. This development maximised the efficiency of zoned land and is therefore of critical importance.

3.3 Alternative Locations

The subject site is within the Maglin Expansion Area and is zoned for residential development. The site is also accessible from Ballincollig Town Centre, providing a wide range of services. Therefore, the subject site was considered an appropriate location for the proposed development, and no alternative locations were considered.

3.4 Alternative Layouts

The final layout, presented in the Architectural Drawings and the Design Statement which should be read in conjunction with this chapter of the EIAR, has evolved since the initial design stage subsequent to a number of design team meetings and in response to pre-planning meetings with Cork City Council and the objectives identified for this site under the Cork City Development plan 2022-2028, such as the Maglin distributor road .

The scheme has undergone a rigorous appraisal, which has led to a final layout that responds appropriately to the site characteristics, opportunities and constraints. Section 3.2.5 of Chapter 3 sets out the intermediate design progressions of the scheme, includes figures showing the proposed layout at each stage and outlines the positive and negative characteristics of each layout, until the final scheme.

3.5 Alternative Design

The proposal has been designed in accordance with the relevant guidelines and standards and has been informed by the site's context and characteristics. Therefore, the proposed design is considered the optimal design for the subject site.

3.6 Alternative processes

This is not considered relevant to the EIAR having regard to the nature of the proposed residential development. The proposed construction work comprises relatively of standard building construction processes, as such there are no specific alternative construction processed identified in this EIAR. It is also considered there is no new or technical challenging operational techniques required and no alternative operational process have been considered as part of this development.

3.7 Cumulative Impact

Each design iteration considered any potential impacts on neighbouring developments (existing, under construction and future), transforming the edges of the scheme to provide an appropriate transition to its direct context and reducing the potential of cumulative impacts.

3.8 Mitigation Measures

The mitigation measures outlined throughout the various EIAR chapters are considered appropriate for the proposed development therefore no alternative mitigation measures were considered in the preparation of this chapter.

CHAPTER 4 | Population and Human Health

4.1 Introduction

This chapter of the EIAR assesses the potential impact of the proposed development on population and human health. Other chapters of the EIAR also deal with likely significant environmental effects on population and human health arising from traffic and transportation, air quality and climate, noise and vibration, landscape and visual, material assets: utilities and the risk of major accidents and/or disasters and those chapters should be referenced in conjunction with this chapter of the EIAR.

4.2 Baseline Environment

The identified study area had a population of 20,497 no. persons in 2022 census. The largest cohort was the 40–49-year-olds making up 15.9 % of the population. The smallest cohort was the 80 years and above making up just 2.6% of the population.

In 2022 a total of 7,145 households lived in the study area. In relation to household size, 29.3% households were 2 person households, 18.9% were 3 person households and 19.5% were 4 person households (average household size of 2.9 persons).

The audit identified a total of 262 facilities located within the catchment area of the proposed development. 104 no. of the SIA facilities identified were convenience and retail facilities, which was the largest category.

There are 6 no. primary schools, 3 no. post primary schools, 1 no. special school and 1 no. further education centre in the study area. These are all within a 7 minute drive time from the site.

There are a total of 16 no. existing childcare facilities within an 8 minute drive time of the site, located within the study area.

There are 45 no. health and medical facilities in the study area including 11 pharmacies, 10 health clinics, 9 dentists, 5 nursing homes, and 10 medical or care centres.

4.3 Impact Assessment

4.3.1 Construction Phase

The construction phase is likely to result in a short term boost to the local economy as workers employed at the site can be expected to make use of local retail facilities and other services.

As with any construction site, there will be potential risks to the health and safety in terms of injury or death of construction personnel.

The construction phase has the potential to result in dust and noise emissions that could impact the amenity of the nearby residential dwellings.

4.3.2 Operational Phase

The proposed development will replace the existing fields with a residential development, in line with the land use zoning and national objectives for compact growth and increased densities. The provision of the additional homes in Maglin is expected to have a permanent, positive impact on Ballincollig town.

Based on the average household size in Ballincollig of 2.9 persons, the proposed development of 1,150 no. units can be expected to provide a population of 3,335 no. persons. Based on the 2022 population, the proposal will likely result in c. 217 no. children aged 0-4, c. 394 no. primary school aged children, and c. 263 no. post primary school aged children.

The projections for primary and post primary school enrolment suggests that there will be sufficient capacity to cater for the increase in primary and post primary school aged children in the area.

The proposed development includes a creche to cater for the increase in childcare demand from the proposal.

The expected in traffic will result in an increase in the associated greenhouse gas emissions, which can in turn decrease the local air quality and impact on human health. This is assessed in Chapter 13 Air Quality.

4.4 Residual Impact Assessment

Following the implementation of the appropriate mitigation measures, the construction phase is expected to have a short term slight positive impact with a benefit to the local economy.

During the operational phase, the proposed development is expected to have a moderate positive impact with overall economic and social benefits for the local community and the wider Ennis area. The delivery of much needed housing will realise a likely significant positive effect for the local area.

CHAPTER 5 | Landscape and Visual

The Landscape and Visual chapter assesses the effects of the proposed development on the landscape and visual environment. The proposed development consists of a residential scheme of over 1150 units comprised of two storey houses, duplex and apartment buildings providing a mix of 1, 2, 3 and 4 bedroom homes with associated ancillary works including crèche building, vehicular access, parking, footpaths, drainage, services, landscaping and site boundary works. The proposed development is located on the north side of the N22 south of the existing settlement of Ballincollig.

The site is predominantly covered in grassland, most of which has been managed for agriculture. Maglin Country House, a late 18th/early 19th century house listed on the National Inventory of Architectural Heritage is situated close to the centre of the site with associated farm buildings, walled garden and orchard. There is also a single storey gate lodge fronting at the access track onto Maglin Road.

There are a number of existing hedgerows and tree lines that define the paddocks within the site and the Maglin river runs along the northeast boundary of the site. The site is currently gently undulating, pastoral farmland, with hawthorn hedgerow field boundaries to large open fields. In addition to adjoining farmlands, residential developments are located within close proximity to the site, giving rise to a mixed land use pattern of agricultural and residential zones, which is characteristic to the locality of Ballincollig.

The site is predominantly flat with some gently sloped areas along the southern boundary with the N22 and in the eastern part of the site, ranging from levels of +15.0m to +23.0m. There are views of the site from the residential properties along Maglin Road to the west, from the southern edge of Ballincollig and Heathfield to the north and from dwellings on the elevated ridgeline to the south of the N22. There are views of the site from the N22 to the south of the site and from the Poulavone/N22 interchange to the southeast of the site.

There will be localised, moderate to significant, temporary positive and negative effects on the landscape and visual environment during the construction phase arising from erection of hoarding, topsoil stripping, earthworks and construction activities.

The landscape measures incorporated into the design are proposed to minimise the landscape and visual effects of the project. Measures include extensive mounding, native and adaptive tree planting, retention and enhancement of established trees and hedgerows as part of green corridors and provision of green public spaces.

Once built, given that the development is located on the southern edge of Ballincollig, in time, it will be incorporated into overall setting of the town. It is considered that the proposed development will lead to positive, significant, localised, long term/permanent landscape effects. With regard to visual effects it is considered that post mitigation, residential receptors and road users will experience neutral, slight to moderate, and localised effects. Views from Ballincollig Castle are considered to be neutral, slight to imperceptible and localised with those from Maglin House considered positive, significant and localised.

CHAPTER 6 | Material Assets: Traffic and Transport

The purpose of this chapter is to assess the impact of the Proposed Development on the surrounding road network and transport infrastructure (including pedestrian, cycling and transport facilities).

The assessment is based on the Traffic and Transport Assessment, Outline Mobility Management Plan, as well as the current relevant guidance documents. A Quality Audit (including a Stage 1 Road Safety Audit) has also been completed.

Construction Phase

Construction traffic travelling to the site will use the Maglin Road for access. The dominant traffic route will be via the N22/N40 interchange. Construction stage traffic will result in an increase in HGV content on the local roads network with the potential for abnormal loads which will extend over the construction stage of the scheme.

Potential Direct effects of the construction phase on the Local Roads Network are:

- Uncontrolled and/or misdirected HGV's arriving via minor roads unsuitable to the task;
- Queuing at junctions due to slow moving vehicles;
- Mud attached to site vehicles will contaminate the existing road surface and road network drainage system with the potential to cause flooding and unsafe driving conditions for all road users;

In the absence of mitigation measures the Direct impact of the construction phase on the local roads network is Negative in quality, Significant significance, Likely probability, Medium-term in duration.

Potential Indirect Impacts of the construction phase also include damage to the road surface due to higher HGV use.

In the absence of mitigation measures the Indirect impact of the construction phase on the local roads network is Negative in quality, Significant significance, Likely probability, Medium-term in duration.

Operational Phase

Operational stage traffic will result in an increase in traffic flows on the surrounding roads network with the potential for queuing and delay occurring during peak periods as indicated in the modelling results presented for each junction.

Potential Direct effects of the operational phase on the Local Roads Network are:

- Increased traffic volumes on the local roads network;
- An increase in overall journey times;
- Increased risk of accidents due to heavier traffic volumes and more pedestrian/cyclists using the available sustainable travel modes;
- Increase in noise and air pollution from residential traffic;
- Potential for significant congestion at identified junctions;

In the absence of mitigation measures the Direct impact of the operational phase on the local roads network is Negative in quality, Significant significance, Likely probability, Long-term in duration.

Potential Indirect impacts of the operational phase on the local roads network are:

- Potential positive effect for an increase in sustainable travel modes with users opting for a modal shift to avoid congestion at junctions.
- Lack of dedicated Bus-Lanes implies Bus will be stuck in same queues as the private car;

In the absence of mitigation measures the Indirect impact of the operational phase on the local roads network is Negative in quality, Significant significance, Likely probability, Long-term in duration.

Mitigation Measures

Construction Stage Mitigation

As part of this application a Construction Environmental Management Plan (CEMP) has been developed which includes Traffic Management Plan. This traffic management plan has identified the optimum route for construction access and quantifies the expected maximum daily HGV movements to and from site (i.e., 15 no. HGV's 30 trips). It is concluded, from a junction capacity assessment perspective, that the operational phase of the scheme will generate more traffic during the peak traffic periods than the construction stage. Operational phase junction models therefore present a worst-case scenario in terms of impact for the modelled network.

The recorded HGV (Heavy Goods Vehicles) content on the Maglin Road is 2%. The development of the site will see this percentage increase to 4.5% during the construction stage of the scheme, estimated at a maximum of 15 no. HGV's/day. This equates to 30 HGV movements per day.

In addition, allowance is made for a maximum of 100 workers/staff on-site (4 movements per employee including for lunch break) giving an overall construction phase traffic generation of 430 movements per day.

The developed CEMP proposes mitigation measures to minimise the impact of this increase:

- A Construction & Environmental Management Plan coupled with a Construction Stage Traffic Management Plan has been developed by the appointed engineers for the scheme. These plans seek to minimise the number of materials imported and exported from site as well as minimising construction stage traffic. These plans are to be updated by the appointed Main contractor(s).
- The Contractor's Construction Traffic Management Plan will identify suitable routes to accommodate HGV traffic and will include specific times of operation. These times will ideally avoid peak hour traffic times as identified in this assessment.
- An on-site wheel wash facility will ensure no site material is brought on to the public roads network. Subject to the implementation of various mitigation measures the Proposed Development is not anticipated to have any significant adverse impacts on any built assets in the area.

Operational Stage Mitigation

To minimise disruption to the local roads network during the operational phase, the following mitigation measures are proposed.

- It is proposed to make the site permeable to the surrounding roads network ensuring it will be connected to existing and proposed cycle/pedestrian linkages to public transport offerings, schools, retail and amenity destinations.
- The proposed new access arrangement onto Maglin Road is safe and suitable and is in accordance with the Design Manual for Roads & Bridges (DMRB) and the Design Manual for Urban Roads & Streets (DMURS).
- The signalisation of Junction 4 and Junction 12.
- The site benefits from being near regular public transport provision, within walking distance of the site, which enables journeys throughout Cork City, Wilton and Mahon to the east.
- The Outline Mobility Management Plan should be acted upon and a Mobility Manager appointed to ensure that information contained in the MMP is available to all residents of the development. Modal choice surveys should be undertaken periodically to help assist in monitoring the up-take of sustainable transport options.

Conclusion

The construction and operation of the scheme has the potential to result in environmental impacts on the local roads network both during the construction phase and the operational phase. Mitigation measures as described in this chapter shall be implemented during the construction phase and during the operational phase to minimise the risk of impact on the environment.

CHAPTER 7 | Material Assets: Built Services

This material assets assessment has addressed the likely effects on existing built services in the vicinity of the Proposed Development during the demolition, construction, and operational phases. Material assets comprise the physical resources in the environment, which may be of human or natural origin. Material assets in the vicinity of the Proposed Development comprise of built services and infrastructure such as surface water drainage, water supply infrastructure, and foul water drainage. Other material assets include telecommunications and electric.

Impact Assessment and Mitigation Measures

The construction phase of the proposed development has the potential to result in slight and temporary impacts to the existing population in the local area. The construction of below-ground services such as watermain, storm & foul pipeline, telecommunication conduits, ESB conduit will require excavation works for trenching. Similar to bulk earthworks, the excavation work required for the trenches has the potential to introduce suspended solids to water run-off from the site. Road openings and associated licenses will be required to connect the proposed watermain, and foul, networks to existing networks. This will require minor local traffic management measures for the duration of the works.

The operation of the proposed development will result in the generation of additional foul effluent and an increase in water demand as well as an increase in demand on the existing electricity network.

Subject to the implementation of various mitigation measures the Proposed Development is not anticipated to have any significant adverse impacts on any built assets in the area.

Surface Water Drainage

The proposed surface water management system is designed, as much as is feasible, in accordance with the principles of Sustainable Drainage Systems (SuDS) as embodied in the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS). The stormwater management plan for this particular development incorporates a range of measures, including both soft and hard solutions. The use of Sustainable Drainage Systems (SUDS) and tank systems has been proposed where applicable. The proposed surface water discharge rate from the development will be restricted to Qbar, as specified. Each catchment will have a hydrobrake flow-control device installed downstream to limit discharge to the pre-development greenfield discharge rate. To facilitate the removal of grit from runoff before it enters the SuDS systems, grit-sump manholes will be positioned upstream of the attenuation tanks areas. Petrol interceptors will be included at the final manhole prior to discharge to an outfall point.

Wastewater Drainage

The proposed development will require a new separate drainage network to collect and convey the effluent generated by the proposed development. The new wastewater network will connect to a new wastewater pump station. The network has been sized to cater for additional proposed development to the north and north east. Foul effluent will then be pumped via a rising main to a header manhole to the north east of the site past Heathfield Estate. This header manhole will then connect to the existing Wastewater network on the public road.

A Letter of Confirmation of Feasibility and A Statement of Design Acceptance for the development has been received from Uisce Eireann and potential effects on the local wastewater network are predicted to not be significant.

Water Supply

The proposed development will require a new separate watermain network to serve the proposed development. A 450mm diameter HDPE watermain is proposed for the Main Distributor Road. This will take connection from the north east at Heathfield and will terminate at a dead end at the intersection of the Distributor Road and the Maglin Road. The development itself will be supplied by branches of 200mm, 150mm and 100mm diameter HDPE watermains.

A Letter of Confirmation of Feasibility and A Statement of Design Acceptance for the development has been received from Uisce Eireann and potential effects on the local water network are predicted to not be significant.

Electricity

All works to the electrical lines during the construction phase will be carried out in accordance with appropriate requirements and ESB Network guidelines.

Locations & capacity of the network services will be agreed in consultation with ESB Networks. There will be an increased demand in electricity supply required during the operational phase of the development. Demands will be agreed & authorised by ESB Networks to ensure that there will be no significant effects.

Telecommunications

During the construction phase, works on & around the telecommunications services will be conducted in accordance with the main contractors final Construction Management Plan & the appropriate service providers Code of Practice.

For the operational phase, locations of the network services will be agreed in consultation with the relevant suppliers.

Conclusion

This chapter concludes that there is unlikely to be any significant adverse impacts on material assets (Built Services) as a result of the Proposed Development during either the construction or operational phases.

CHAPTER 8 | Material Assets: Waste

8.1 Non-Technical Summary – Material Assets: Waste

This chapter assesses the potential waste impacts associated with the Proposed Development at Maglin, Ballincollig, Cork. The project involves demolition of existing structures, refurbishment of existing buildings, and the construction of over 1,150 residential units and a creche.

The assessment focuses on how waste will be generated and managed during the demolition, construction, and operational phases of the project. It aims to ensure compliance with national and regional waste policies and promote sustainable waste practices aligned with Ireland's Circular Economy Strategy.

8.2 Key Findings

- **Demolition Phase:** The removal of existing buildings will produce construction and demolition (C&D) waste such as concrete, timber, metals, and roof tiles. Some hazardous waste (e.g. asbestos) may also be encountered. These materials will be carefully managed and directed to authorised facilities for recycling or safe disposal.
- **Construction Phase:** A significant quantity of construction waste, including excavated soil (ca. 50,000m³), packaging, and surplus materials will be generated. A detailed Construction and Demolition Resource and Waste Management Plan (C&D RWMP) will guide the handling, segregation, reuse, and disposal of this waste.
- **Operational Phase:** Once occupied, the residential units and creche will produce municipal solid waste (MSW). The development includes purpose-built bin stores and internal 3-bin systems (recyclables, organics, and residual waste) to encourage source segregation. Waste will be managed in accordance with an Operational Waste Management Plan (OWMP), which aligns with Cork City Council requirements and national recycling targets.

8.3 Mitigation Measures

Mitigation will focus on:

- Designing infrastructure to enable waste segregation and reduce landfill use.
- Training staff and residents on correct waste practices.
- Regular monitoring and auditing of waste handling.
- Coordinating with licensed waste contractors for efficient collection.

8.4 Residual Impacts

Following mitigation, any remaining (residual) waste impacts are expected to be minor. These include limited non-recyclable waste, emissions from waste transport, and minor nuisance risks such as odours or bin overflow. No long-term significant environmental impacts are predicted.

8.5 Cumulative Impacts

In combination with other local developments, the proposed project may add to regional waste volumes. However, these impacts can be managed effectively through policy alignment and ongoing infrastructure planning.

8.6 Conclusion

With appropriate mitigation in place, the development will have no significant adverse impact on material assets or the regional waste network. It supports national objectives for waste reduction and circular economy by integrating best practice waste management systems from the outset.

CHAPTER 9 | Land, Soils and Geology

The purpose of the Land & Soils (Geology) EIAR Chapter is to understand and describe the existing land use, soil, subsoil and bedrock conditions underlying and in the general locality of the Maglin site and assess the likely impacts of the proposed residential development on this environment. The assessment quantifies the significance of the attributes and includes the identification of potential mitigation measures that would help negate or reduce any potential significant effects occurring.

The methodology of the Land & Soils Assessment follows the guidelines provided by the relevant authorities in Ireland in particular the recent 2022 Environmental Protection Agency (EPA) publication which outlines the process of preparation and the content required for an EIAR. This follows up on two EPA guidance documents for the completion of EIA's from 2015 and also the 2013 Institute of Geologists of Ireland (IGI) guidance which details the specific geo-environmental content required for an EIS. Other relevant documents include guidance from the National Roads Authority from 2008.

The scope of work to be completed for the Maglin EIAR assessment involved a Desk Study & Walkover Survey of the locality, the review of any available site investigation information and relevant reports.

9.1 Existing Environment

The land at Maglin is composed of flat to slightly agricultural grassland in a mixed rural-urban setting with the old farm stead, Maglin House, with its associated farm yard, barns, out-houses and walled garden located towards the middle western end of the study area. The proposal is to build a mix of residential housing throughout the site area with some apartment blocks to the north west of the old farm house and yard area. Two new access roads are proposed to enter the north of the site area.

According to the Geological Survey of Ireland (GSI) Mapping and Teagasc Soil Maps the:

- Topsoil is described as "Well Drained Mineral Soils, (mainly acidic), derived chiefly from non-calcareous parent material", from the soil group of "Acid Brown Earths, Brown Podzolics".
- Subsoil is described as glacial "Till derived from Devonian Sandstones", (TDSs),
- The Generalised Bedrock under the majority of the site area is identified as Carboniferous age Waulsortian Limestone (WA) Formation. This is known to be potentially karstified.
- The younger Little Island Limestone (LI) Formation underlies the lands with the two new access roads to the north.
- The southern edge of the site is underlain by the older Carboniferous Cuskinny Formation, comprised of interbedded sandstones and mudstones.
- The GSI Vulnerability Mapping, which is based on estimated subsoil depths, identifies Moderate to High Vulnerability (>5m to 3m) over the majority of the site with some shallower subsoils (<3m) in the central northern area where the old quarry is identified on old maps.
- Site specific investigations comprising of 25 shallow trial pits, 23 dynamic probes and four deeper boreholes were completed across the site area which identified typical soil-subsoil depths of >4m with the four boreholes encountering bedrock at depths of 5.7m, 10m, 14.3m and 17.5m.
- Subsoils typically consisted of natural brown gravelly sandy silty CLAY with some cobbles and occasional boulders. Occasionally more gravelly and/or more clayey SILT material was identified.
- An area of fill material, consisting of natural soils from the construction of the adjacent Ballincollig By-Pass motorway, was identified in an area of raised ground in the eastern part of the site area.
- The current land use and existing geology are very common in Co. Cork and nationally and there is no intrinsic scientific value or geological heritage identified on, or in the vicinity, of the site.

9.2 Predicted Effects

The main effects that are anticipated and are considered to require assessment are the potential extent and volumes of 'cut and fill' of subsoils required for the development and the potential for environmental effects on the soils and bedrock for the construction and operational phases.

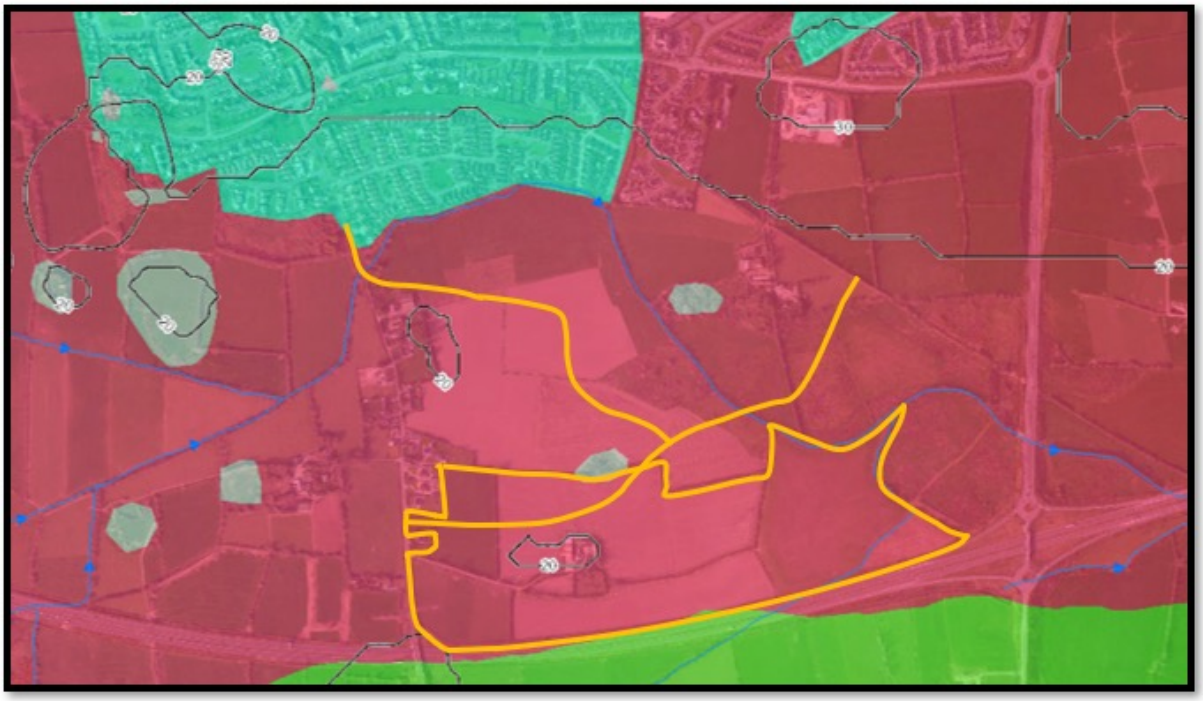

Figure 9.1 Maglin Study area & Roads GSI Subsoil Map, of Well Drained Mineral Soils (red) over the whole site area with an area Rock Close (grey) on the northern boundary.

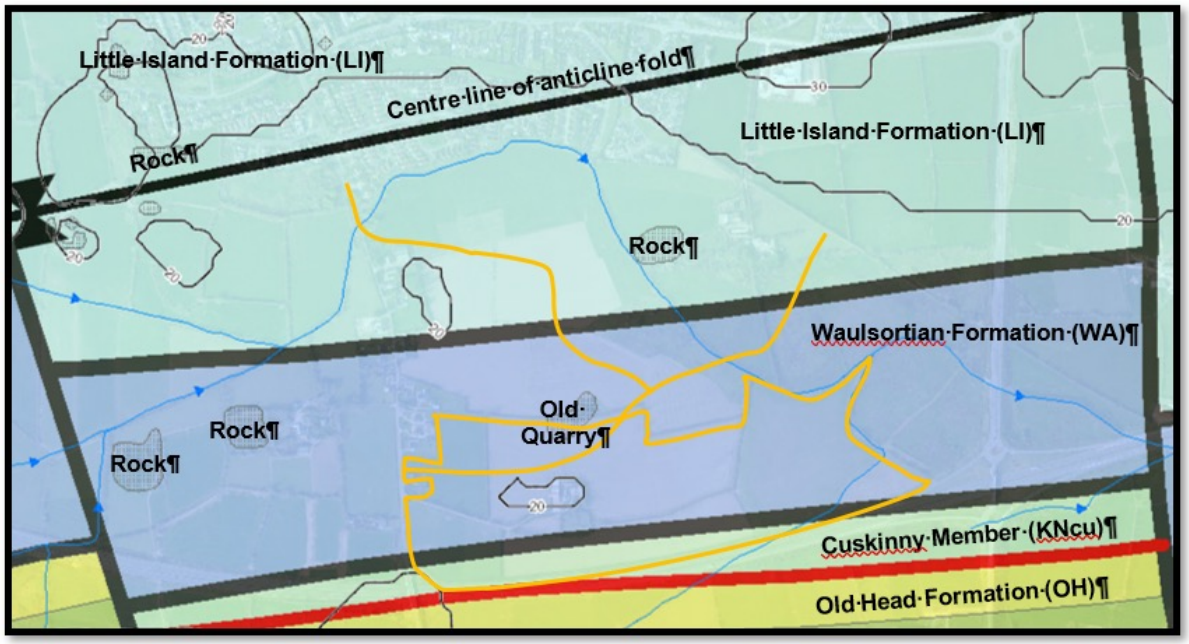

Figure 9.2 GSI Bedrock Geology Map showing most of the site underlain by Waulsortian Limestone (WA) Formation with the southern portion over the older Cuskinny Member (KNcu) and the access roads to the north over the Little Island Limestone (LI) Formation.

9.3 Mitigation Measures

Good construction management such as limiting areas of exposed soil or excavation works, stock piling of materials on flat surfaces and away from slopes and water courses, used of bunds or silt fencing, controlled refuelling of machinery and bunding of fuel storage and chemical areas, will all be undertaken during the initial development and construction phase. Construction areas will be kept as small as possible, clean and dirty water runoff will be segregated and as necessary settlement ponds and silt fences will be constructed to control sediment runoff as required. Green areas will be left undeveloped and any disturbed ground will be reseeded to limit and prevent sediment runoff.

Soil to be re-used on site as much as possible and any excavation areas will be supported as necessary to prevent slumping. Best practice guidelines with regard to environmental management and pollution control for the construction industry (e.g. CIRIA guidelines), will be implemented for the proposed development through the Environmental Construction Management Plan, (CEMP).

9.4 Impact Assessment

The overlying soil, sub-soil and limestone bedrock are classified as being of Low Importance as they are very common geological sequences present across wide areas. The potential impact on the geological regime is considered to be Negligible as no long term adverse or significant effects are identified and short term risks can be successfully mitigated.

9.5 Conclusion

Following the assessment of the Land/Soils (Geology) elements of the Maglin Residential development the Magnitude of Effects on these attributes is considered to be Negligible.

Some of the potential short term or brief impacts such as, suspended sediment runoff in surface waters or stock pile instability can be prevented or limited by incorporating the recommended mitigation measures into the initial earth works, construction and operational phases, the identified potential effects are rated to be Imperceptible.

CHAPTER 10 | Hydrology & Hydrogeology

This is the non-technical summary of the Water Environmental Impact Assessment Reporting works of the proposed large scale residential development site at Maglin near Ballincollig, in Co. Cork.

Background information on the nature of the Water attributes, (hydrology and hydrogeology), their extent, characteristics and status was obtained from a wide variety of available documents and online references. Consultation was undertaken with the relevant authorities by the project planners.

10.1 Existing Environment

The site is located on the southern side of the broad River Lee Valley in the South Western River Basin District (SWRBD), as defined by the Water Framework Directive, (WFD), in the Lee, Cork Harbour and Youghal Bay Catchment Hydrometric Area 19. The hydrometric area 19 is divided into a number of sub-catchments with the Maglin site in the WFD Sub-Catchment 19_17 Glasheen (Cork City) _SC_010.

The Glasheen Sub-Catchment occupies an area of about 100km^2 and has four River Sub-Basins in it. The study area is located in the Curraheen (Cork City)_010 River System which occupies an area of 37.25km^2 of the northwestern portion of the catchment and is composed of a number of smaller river systems that flow east/northeast wards to the Glasheen River, which ultimately joins the River Lee near Victoria Cross on the west site of the city.

The site is relatively flat to slightly undulating with the local topography generally sloping from east to northeast. The site is located between the confluence of two small tributaries of the Curragheen River with the Grange Hill River forming part of the northern eastern boundary of the site and the Maglin River which flows along the southern side of the N22 motorway that forms the sites southern boundary.

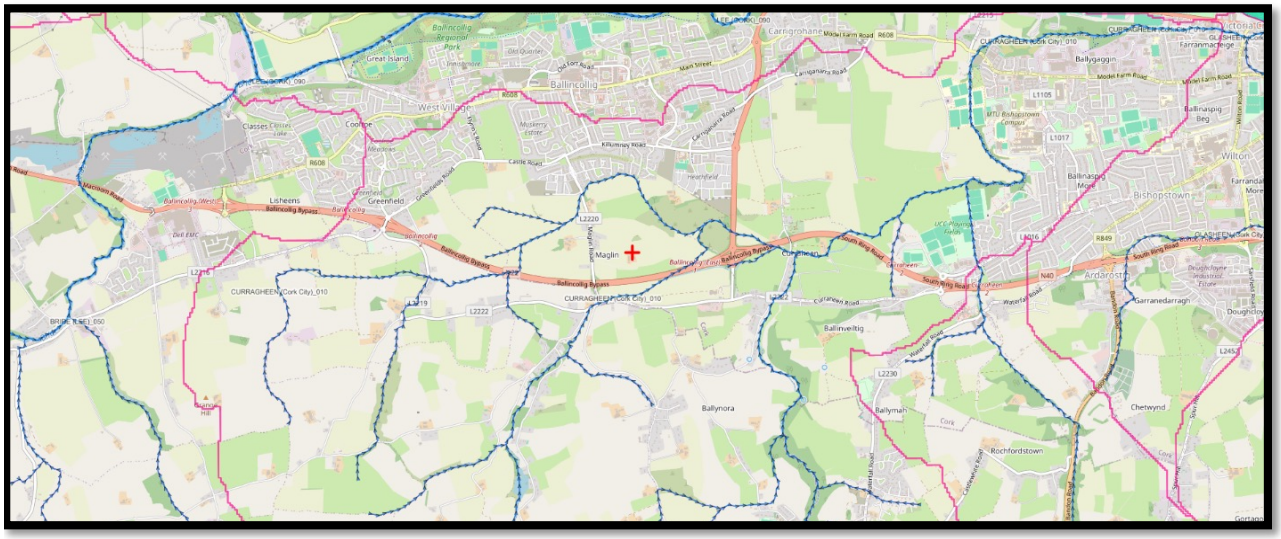

Figure 10.1 Maglin study area (red) located on NW side of Curraheen River Sub Basin Catchment with the Grange Hill River to the north and Maglin River to the south of the site area.

The catchment area is predominately underlain by sandstone bedrock in the higher hill topography south and limestone bedrock in the lower undulating valley topography in north. The site is primarily underlain by limestones and is overlain by free draining acid brown earth tills. There is an area of raised fill, that was excess subsoil material from the construction of the N22 motorway, occupying the eastern end of the site. There is a drainage channel on the eastern boundary of this area that joins the Grange Hill watercourse. It is proposed that all site drainage and attenuated stormwater will enter this system.

The River Lee is a designated Salmonoid River and it flows into the Cork Harbour Estuary that forms part of the Cork Harbour Special Protection Area (SPA).

All the watercourses within the Curraheen Sub-catchment area are identified by the EPA to be of “Moderate Quality” and the water quality is considered to be “At Risk” due to Anthropogenic Pressures.

The bedrock underlying the majority of the site is classified as a Regionally Important Fissured Aquifer (Rf), that is also known to be potentially karstified. The local water supply is from the Public Mains and no public or private supply wells or other potable supplies have been identified by the GSI mapping and although not all private boreholes are recorded by the GSI it is considered that the local aquifer is not widely used as a potable water supply source.

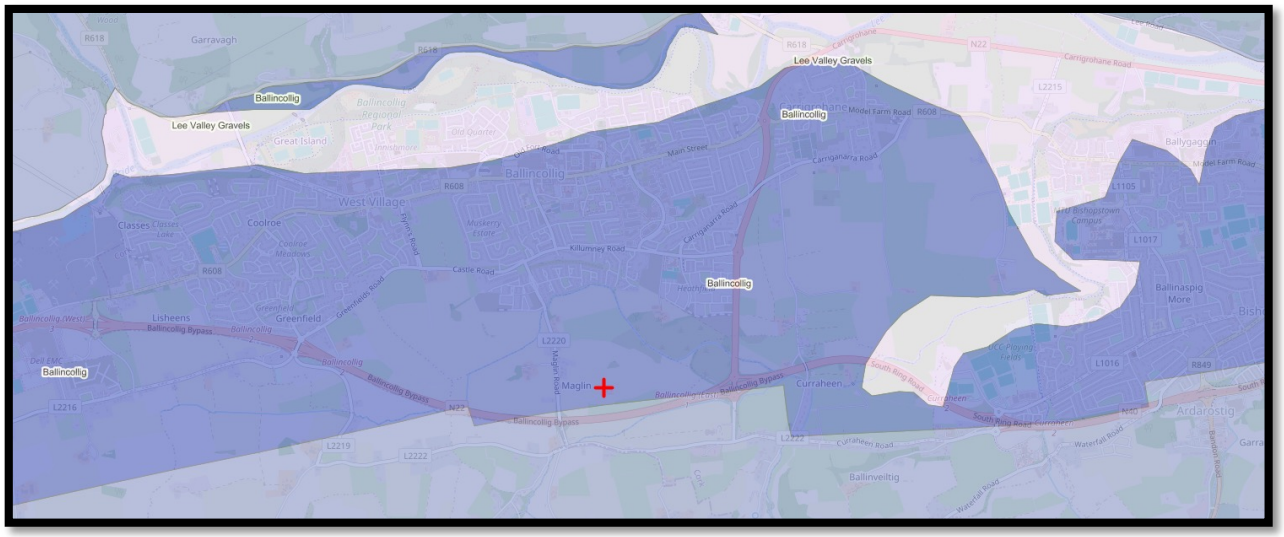

Figure 10.2 Maglin study area (red) primarily located on the Ballincollig Groundwater Body, which reflects the underlying limestone bedrock. The southern edge of the site is located on the Ballinhassig East Groundwater Body which reflects the sandstone, siltstone & mudstone bedrock.

The groundwater bodies under the site are identified by the EPA to be of “Good Quality” and the groundwater quality is considered “Not At Risk”.

10.2 Predicted Effects

Predicted effects during the initial earth works, construction and operational phase of development include: 1) potential for suspended runoff in surface water from the active construction, cut and fill areas in wet weather to the nearby interceptor drain and/or the Grange Hill River, 2) potential for accidental contamination of the under lying aquifer through fuel spillages, 3) potential for increased runoff from hard surfaces off site, 4) potential for local impact on the aquifer from pollution by leaks in the buried waste water piping system, 5) potential for dirty surface runoff from the local road network.

10.3 Mitigation Measures

Good construction management such as controlled refuelling of machinery and bunding of fuel storage and chemical areas will be undertaken during the construction phase. Construction areas will be kept as small as possible, clean and dirty water runoff will be segregated and as necessary settlement ponds and silt fences will be constructed to control sediment runoff as required. Green areas will be left undeveloped and any disturbed ground will be reseeded to limit and prevent sediment runoff.

The site is to be developed in a phased manner and has been divided into nine site catchments in order to manage the runoff and allow the discharges from around the site to mimic the greenfield runoff QBar.

As well as the use of small soakaways for managing some roof runoff, Sustainable Urban Drainage Systems (SuDS) will be incorporated site wide into the development design in order to sustainably reduce and limit water runoff. It is also proposed to install 12 permanent stormwater attenuation systems with associated hydrobrakes around the sites various catchments.

Hydrocarbon interceptors are to be installed on hard surface/roadway surface water drainage systems around the development. Best practice guidelines with regard to environmental management and pollution control for the construction industry (e.g. CIRIA guidelines), will be implemented for the proposed development through the Environmental Construction Management Plan, (CEMP). The IFI Guidelines on Protection of Fishers During Construction Works in and Adjacent to Waters, (IFI 2016), will be adopted to manage pollution risks for near water work and the road works river crossing.

10.4 Impact Assessment

The surface waters of the River Lee and Cork Harbour Estuary are classified as Extremely Important as they are a designated salmonoid river and internationally important Special Protection Area habitat. The potential Impact Magnitude on the surface water regime is considered to be Negligible as no long term adverse or significant effects are identified and short term risks can be successfully mitigated.

The underlying aquifer has a High to Medium Importance with a potential Impact Magnitude on the groundwater considered to be Negligible as no long term adverse or significant effects are identified and short term risks can be successfully mitigated.

10.5 Conclusion

Following the assessment of the Water elements of the Maglin development the Magnitude of Effects on these attributes is considered to be Negligible. Some of the potential short term or brief impacts such as, suspended sediment runoff in surface waters or waste water leaks to groundwater, can be prevented or limited by incorporating the recommended mitigation measures into the initial earth works, construction and operational phases, the identified potential effects are rated to be Imperceptible.

CHAPTER 11 | Biodiversity

This chapter assesses the potential biodiversity impacts associated with the Large-Scale Residential Proposed Development at Maglin, Ballincollig, Co. Cork.

The project involves demolition of existing structures, refurbishment of existing buildings, and the construction of over 1,150 residential units and a creche.

The assessment focuses on how flora and fauna will be impacted during the demolition, construction and operational phases of the Proposed Development. It aims to ensure compliance with local and national and European policies relating to biodiversity. A comprehensive suite of ecological surveys and assessments were conducted at the Site based on best practice guidance.

Key Findings:

There are no designated ecological sites within the Site Boundary. However, there is one European designated site within a 15km radius of the site:

- Cork Harbour Special Protection Area ('SPA') is located 9.5km east of the Site.

Natural Heritage Areas ('NHA') and proposed Natural Heritage Areas ('pNHA') within 5km of the Site were also considered. No NHAs were identified within 5km of the Site. However, four pNHAs were identified within 5km of the Site:

- Ballincollig Cave is located 475m west of the Site;
- Lee Valley is located 1.5km northwest of the Site;
- Shournagh Valley is located 2.3km north of the Site; and,
- Blarney Lake is located 4.5km north of the Site.

A hydrological connection was identified between the Site and Cork Harbour SPA and the Great Island Channel SAC, located 20km downstream of the Site. The Great Island Channel SAC was screened out due to the dilution factor and distance. Given the mobility of bird species and the potential for them to be impacted by water quality impairment, Cork Harbour SPA was taken forward for further detailed consideration.

A combined Stage One: Appropriate Assessment Screening Report and Stage Two: Natura Impact Statement ('NIS') has been prepared. The NIS concluded that the Proposed Development, either alone or in-combination with other plans or projects, will not result in any significant adverse effects on any European sites or any of their designated features following the implementation of best practice guidelines and appropriate mitigation measures.

Habitats

The Site is primarily comprised of improved agricultural grassland surrounded and bisected by hedgerow / treelines. An orchard is present in the centre of the Site below Maglin House and the agricultural sheds. Maglin Lodge is located in the east of the Site north of an access track. Small areas of mixed broadleaved woodland, scrub and wet grassland are present in the northern sections of the Site when the link roads are proposed. The Grange Hill River intersects the Site in two places and borders the northeastern boundary. There are drainage ditches onsite that connect into the river.

Fauna

Following the initial assessment of the Site and to ensure a comprehensive assessment of the potential impacts of the Proposed Developed, the following surveys were undertaken:

- Badger survey ;

- Bat and Barn Owl surveys;
- Breeding birds surveys;
- Wintering birds surveys; and,
- Otter surveys.

The survey findings are summarised below:

- The badger survey identified evidence of badger onsite and the Site was deemed suitable for foraging, commuting and sett construction;
- The bat surveys onsite did not identify any bats roosting in the buildings onsite. The Site had high levels of foraging and commuting bats. The Site is considered to be of high value to foraging and commuting bats. Refer the Appendix 11-1 of the EIAR for the Bat Report;
- Barn owls were identified commuting and foraging throughout the Site during bat surveys. The surveys onsite did not identify any barn owl nests;
- The breeding bird surveys onsite identified 33 species utilising the Site. No birds were confirmed to be breeding. However, 23 species were classified as possibly breeding. The Site is not considered to be of high suitability or a site of importance for any Annex I or Annex II species or Red listed birds. The wintering bird surveys recorded 8 species. The wintering bird surveys did not identify any roosting sites or potential roosting sites on the Site. Refer to Appendix 11-2 of the EIAR for the Bird Report; and,
- The otter surveys identified evidence of the otter along the Grange Hill River. The river was deemed suitable for commuting, foraging and holt construction. Appropriate buffers between the river and the development have been incorporated into the design of the Proposed Development.

The Proposed Development will result in disturbance to wildlife in the area. Therefore, appropriate mitigation will be put in place for all the species mentioned above.

Mitigation Measures:

Mitigation will focus on:

- Proposed landscape planting and biodiversity enhancement measures will supplement the existing vegetation onsite and provide additional habitats and opportunities for species already existing within the area;
- Protection of water quality;
- Protection of amphibians;
- Protection for hedgerow / treelines;
- Protection for bats and nocturnal species;
- Protection for birds;
- Protection for terrestrial mammals; and,
- Invasive species mitigation.

Residual Impacts:

Following mitigation measures, any remaining (residual) impacts are expected to be imperceptible.

Cumulative Impacts:

In combination with other local developments, the proposed project may result in increased loss of habitat for protected species. However, these impacts can be managed through policy alignment, landscape planting and enhancement measures.

Conclusion:

The Proposed Development will not result in any significant impacts on ecological receptors identified both onsite and in the surrounding area following the implementation of appropriate mitigation measures.

CHAPTER 12 | Noise and Vibration

Non-Technical Summary

An assessment of likely impact of noise and vibration impacts associated with the proposed residential development at Maglin Road, Ballincollig, Co. Cork has been undertaken within Chapter 12 of this EIAR.

Baseline Environment

The baseline environment within the site and at surrounding noise sensitive locations was quantified by undertaking environmental noise surveys, the results of which are presented within Chapter 12. The baseline noise surveys determined that the noise environment is largely dominated by the surrounding road networks namely the N22 and N40 to the south of the development. Other sources of noise noted were in relation to local traffic on Maglin Road and birdsong. Overall the baseline noise environment is typical of a suburban area in proximity to a national road network.

Potential Impact of the Proposed Development

Construction Phase

Construction noise impacts will vary at various noise sensitive locations (NSLs) throughout the construction phase of the proposed development. The main construction activities in relation to noise will include:

- Site Set Up, Clearance and Demolition
- Provision of Internal Road and Services to the Site
- General Construction of the development buildings

Without mitigation the worst-case noise effects will occur during the site establishment and clearance phase and during the provision of internal road and services stages of construction phase at the closest NSLs to the red line boundary of the site. There is potential for temporary to short term, negative and significant to very significant at these closest NSLs. During the remaining construction phase works, including demolition and the construction of the site buildings, construction noise levels are predicted to be within the adopted construction noise thresholds at all NSLs resulting in a slight to moderate effects.

Operational Phase

The noise impacts relating to the operational phase of the proposed development will relate to:

- Mechanical Plant and Services
- Additional Traffic on Public Roads
- Inward Noise Impacts

The noise impacts relating to mechanical plant and services are likely to be neutral, not significant and long-term if guidelines and recommendations within the EIAR chapter are followed. The noise impacts relating to Additional Road Traffic on Public Roads will be long term, negative and Imperceptible to not significant.

With reference to the Cork County Council Noise Action Plan (2024 to 2028) and the Professional Practice Guidance on Planning and Noise (ProPG:2017), the site has been categorised in the range of low to high noise risk. Due to the sites proximity to the N22 the southern portion of the site falls into the high-risk category with the risk reducing to low further north into the site away from the traffic noise levels. A full inward impact assessment and Acoustic Design Statement is presented within Chapter 12.

Mitigation and Residual Effects (Post-Mitigation)

Construction Phase

Mitigation measures to be implemented during the construction phase are discussed within the full EIAR which will be implemented in accordance with BS 5228: 2018+A1 2014, parts 1 and 2.

After mitigation, it is anticipated that the residual worst-case effect of the construction phase noise will remain temporary to short-term, negative, and significant to very significant at the closest NSLs to the red line boundary during the site set up and clearance phase of works. During the general construction stage of the proposed development however construction noise levels will fall within the adopted construction noise thresholds resulting in a slight to moderate effect.

It is important to note that the worst-case residual effect will occur at certain NSLs highlighted within the noise and vibration chapter, which are closest to the construction work areas related to the various phases of construction. For most of the construction periods, construction works will be further from NSLs, resulting in a lower impact. It is also important to note that construction activities are inherently transient, meaning noise intrusive works will only affect the nearest NSLs for brief periods.

Operational Phase

Mitigation measures to be implemented during the operational phase are discussed within Chapter 12. These measures mainly relate to the selection of quiet plant as well the suppression of break out noise from items of mechanical plant, where required for residential buildings. The residual operational noise impact in relation to the mechanical plant and services noise will be neutral, not significant and long term.

The residual impact of the traffic on the surrounding road will be negative, not significant and long term.

chapter 12 includes a detailed Inward Noise Impact Assessment relating to the impact of existing road traffic on the local road networks likely to affect the proposed development. The Inward Impact Assessment within the EIAR provides details on boundary and barrier treatment along the southern perimeter of the development site and the required acoustic performance to glazing and ventilation systems for various facades on the southern boundaries of the site bordering the N22 and the internal link road within the proposed development.

Cumulative Impact of the Proposed Development

Construction Phase

Cumulative noise impacts in relation to construction noise are unlikely to occur due to the scale of the proposed development with construction noise associated with the development likely to dominate the surrounding noise environment. The noise contribution of other sites would need to be equal to those associated with the proposed development in order to result in any cumulative effect.

Operational Phase

The noise limits set within the EIAR are designed to avoid any significant increase in the prevailing background noise environment. There is not expected to be a cumulative effect in relation to either operational mechanical plant noise or road traffic noise during the operational phase of the proposed development.

CHAPTER 13 | Air Quality

The assessment of Air Quality is contained within Chapter 13. The air quality assessment has focussed on:

- Potential construction dust emissions and impacts to nearby sensitive receptors such as residential properties, schools, hospitals, etc.
- Potential vehicle emissions from traffic accessing the site for construction works and during operation.

13.1 Existing Environment

Baseline data and data available from similar environments indicates that levels of nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}) and particulate matter less than 2.5 microns ($PM_{2.5}$) and are generally well below the current National and European Union (EU) ambient air quality standards.

13.2 Impact Assessment

13.2.1 Do Nothing Scenario

In the Do Nothing scenario, the site will remain unchanged, and air quality will follow existing trends. These trends may be influenced by nearby developments and traffic. Since the site is zoned for development, a similar project is likely to be built in the future. As a result, air quality impacts are expected, even without the proposed development and will be ***direct, long-term and negative*** which is overall ***not significant.***

13.2.2 Construction Phase

An assessment of the potential dust impacts as a result of the construction phase of the proposed development was carried out based on the UK Institute for Air Quality Management 2024 guidance document *'Guidance on the Assessment of Dust from Demolition and Construction'*. This established the sensitivity of the area to impacts from construction dust in terms of dust soiling of property and human health effects. The surrounding area was assessed as being of medium sensitivity to dust soiling and of low sensitivity to dust-related human health effects.

The sensitivity of the area was combined with the dust emission magnitude for the site under four distinct categories: demolition, earthworks, construction and trackout (movement of vehicles) to determine the mitigation measures necessary to avoid significant dust impacts. It was determined that there is a medium risk of dust related impacts associated with the proposed development. In the absence of mitigation there is the potential for ***direct, short-term, negative*** and ***slight*** impacts to air quality, which is an overall ***not significant*** impact in EIA terms.

In addition, construction phase traffic emissions have the potential to impact air quality, particularly due to the increase in the number of HGVs accessing the site. Construction stage traffic did not meet the scoping criteria for a detailed modelling assessment outlined in Transport Infrastructure Ireland's 2022 guidance document *'Air Quality Assessment of Specified Infrastructure Projects – PE-ENV-01106'.* As a result, a detailed air assessment of construction stage traffic emissions has been scoped out and the construction stage traffic emissions will have a ***short-term, neutral*** and ***imperceptible*** impact on air quality, which is an overall ***not significant*** impact in EIA terms.

13.2.3 Operational Phase

Operational phase traffic has the potential to impact air quality due to vehicle exhaust emissions as a result of the increased number of vehicles accessing the site. Operational stage traffic emissions were calculated at representative worst-case receptors in the area, and it was determined that concentrations of NO_2, PM_{10} and $PM_{2.5}$ will increase by an imperceptible amount as a result of the proposed development. Operational stage traffic emissions will have a ***long-term, direct, localised, negative*** and ***not significant*** impact on air quality.

13.2.4 Cumulative Impact

There is the potential for cumulative impacts to air quality should the construction phase of the proposed development coincide with that of other developments within 500 m of the site. A review of proposed/permitted developments in the vicinity of the site was undertaken. There were no permitted projects within 500 m of the proposed development site and therefore, there is no potential for cumulative construction dust impacts to nearby sensitive receptors.

The dust mitigation measures outlined in Section 13.10.1 of Chapter 13 will be applied during the construction phase which will avoid significant cumulative impacts on air quality. With appropriate mitigation measures in place, the predicted cumulative impacts on air quality associated with the construction phase of the proposed development is deemed ***direct, short-term, negative*** and ***not significant.***

Operational phase direct impacts on air quality associated with the proposed development are predicted to be ***long-term, direct, localised, negative*** and overall, ***not significant***.

Overall, no significant cumulative impacts to air quality are predicted during the construction or operational phases of the proposed development.

13.3 Mitigation

13.3.1 Incorporated Design Mitigation

There is no incorporated design mitigation required for the development in relation to air quality.

13.3.2 Construction Phase

Detailed dust mitigation measures are outlined within Section 13.10.1 of Chapter 13 to ensure that no significant nuisance as a result of construction dust emissions occurs at nearby sensitive receptors. Once these best practice mitigation measures, derived from the Institute for Air Quality Management 2024 guidance '*Guidance on the Assessment of Dust from Demolition and Construction'* as well as other relevant dust management guidance, are implemented the impacts to air quality during the construction of the proposed development are considered, ***short-term, direct, negative*** and ***imperceptible,*** which is overall ***not significant*** in EIA terms, posing no nuisance at nearby sensitive receptors (such as local residences).

13.3.3 Operational Phase

No site-specific mitigation measures are proposed for the operational phase. The impact to air quality has been assessed as ***long-term, direct, localised, negative*** and overall, ***not significant***

13.4 Residual Impact Assessment

When the dust mitigation measures are implemented, the residual effect of fugitive emissions of dust and particulate matter from the site will be ***short-term, direct, localised, negative*** and ***not significant***.

The impact to air quality during the operational phase of the proposed development as a result of emissions from vehicles accessing the site have been assessed as having a ***short-term, direct, localised, neutral*** and ***not significant***.

13.5 Monitoring

Monitoring of the dust mitigation measures will be required as set out in Section 13.15.1 of Chapter 13 and the Construction Environmental Management Plan. The monitoring requirements will ensure that the dust mitigation measures are working satisfactorily.

CHAPTER 14 | Climate

The assessment of Climate is contained within Chapter 14 of Volume II. The climate assessment has incorporated the following assessments:

- The potential greenhouse gas emissions during the construction and operational phases of the development.
- The vulnerability of the project to climate change, including considerations for increased rainfall and other projected climate impacts.
- The design measures to enhance the project's resilience to future climate risks, such as incorporating drainage systems for increased rainfall.

14.1 Existing Environment

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and alignment with Ireland's 2030 sectoral emissions ceilings and carbon budgets. The EPA state that Ireland had total GHG emissions of 60.6 Mt CO_2e in 2023. This is 2.27 Mt CO_2e higher than Ireland's annual target for emissions in 2023. EPA projections indicate that Ireland has used 63.9% of the 295 Mt CO_2e Carbon Budget for the five-year period 2021-2025. Further reduction measures are required to stay within the budget requirements.

14.2 Impact Assessment

The potential impacts on climate have been assessed in two distinct ways – a greenhouse gas assessment (GHGA) and a climate change risk assessment (CCRA). The GHGA quantifies the GHG emissions from a project over its lifetime and compares these emissions to relevant carbon budgets, targets and policy to contextualise magnitude. The CCRA considers a projects vulnerability to climate change and identifies adaptation measures to increase project resilience.

The impact of the construction and operation of the proposed development on Ireland's total national greenhouse gas emission is compared to Ireland's 2023 total greenhouse gas emissions, the relevant sectoral emissions ceilings and 2030 carbon budgets. Any adverse impacts are predicted to primarily occur during the construction phase, with the dominant sources of greenhouse gas emissions due to the development due to the embodied carbon associated with the building materials for the proposed development.

14.2.1 Do Nothing Scenario

In the Do-Nothing scenario, the site will remain as per the baseline and will change in accordance with trends within the wider area (including influences from potential new developments in the surrounding area, changes in road traffic, etc).

As the site is zoned for development, it is likely that in the absence of the proposed development a development of a similar nature would occur. Therefore, the predicted climate impacts within this report are likely to occur even in the absence of the proposed development.

14.2.2 Greenhouse Gas Assessment

14.2.2.1 Construction Phase

Calculation of the GHG emissions associated with the construction of the proposed development was calculated using information on the lifecycle assessment completed by the project developer on their typical house builds and the online

Transport Infrastructure Ireland Carbon Assessment Tool. The GHG emissions associated with the proposed development are predicted to be a minor fraction of Ireland's 2030 carbon budget of 27.7 $MtCO_2e$. The proposed development will incorporate several mitigation measures as well as sustainable policy measures from the project developer, the proposed development is aligned with Ireland's GHG trajectory to net zero by 2050.

14.2.2.2 Operational Phase

GHG emissions during the operational phase due to operational energy usage. A number of measures have been incorporated into the design to ensure the operational phase emissions are minimised. Operational phase traffic emissions of CO_2e are not predicted to be significant due to the low-level changes in traffic associated with the proposed development.

14.2.2.3 Climate Change Risk Assessment

A CCRA was conducted to consider the vulnerability of the proposed development to climate change, as per the TII 2022 PE-ENV-01104 guidance. This involves an analysis of the sensitivity and exposure of the development to future climate hazards which together provide a measure of vulnerability. The hazards assessed included flooding (coastal, pluvial, fluvial); extreme heat; extreme cold; drought; extreme wind; lightning, hail and fog; wildfire and landslides. The proposed development is predicted to have at most low vulnerabilities to the various climate hazards and therefore climate change risk is considered ***direct, long-term, negative*** and ***imperceptible***, which is overall ***not significant*** with regard to the construction and operational phase.

Overall, no significant impacts to climate are predicted during the construction or operational phases of the proposed development.

14.2.4 Cumulative Impact

With respect to the requirement for a cumulative assessment PE-ENV-01104 states that *"the identified receptor for the GHG Assessment is the global climate and impacts on the receptor from a project are not geographically constrained, the normal approach for cumulative assessment in EIA is not considered applicable. By presenting the GHG impact of a project in the context of its alignment to Ireland's trajectory of net zero and any sectoral carbon budgets, this assessment will demonstrate the potential for the project to affect Ireland's ability to meet its national carbon reduction target. This assessment approach is considered to be inherently cumulative".*

As a result, the cumulative impact of the proposed development in relation to GHG emissions is considered ***direct, long-term, negative*** and ***slight***, which is overall ***not significant*** in EIA terms.

14.3 Mitigation

14.3.1 Incorporated Design

A number of mitigation measures have been incorporated into the design of the proposed development. The development will comply with the requirements of the Near Zero Energy Building (NZEB) Standards and will achieve a Building Energy Rating (BER) in line with the NZEB requirements. Additionally, other measures have also been incorporated into the design of the proposed development to mitigate the impacts of future climate change. To address future climate change risks, the design includes mitigation measures such as adequate drainage systems to manage a 20% increase in rainfall, consistent with the 'Medium Risk' RCP4.5 scenario (2021-2050).

14.3.2 Construction Phase

A number of best practice mitigation measures are proposed for the construction phase of the proposed development to ensure that impacts to climate are minimised. Therefore, the proposed development will be built with carbon reduction and sustainability in mind and will include reductions of embodied emissions during the construction phase.

14.3.3 Operational Phase

During the operational phase the primary focus will be on operational energy usage and outlined through the incorporated design mitigation.

14.4 Residual Impact Assessment

The impact to climate due to a proposed development must be assessed as a whole for all phases. The proposed development will result in some impacts to climate through the release of GHGs. TII PE-ENV-01104 guidance references the IEMA guidance which states that the crux of assessing significance is *"not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050"*. The proposed development has proposed some best practice mitigation measures and is committing to reducing climate impacts where feasible. Once mitigation measures are put in place, the effect of the proposed development in relation to GHG emissions is considered ***direct, long-term, negative*** and ***slight,*** which is overall ***not significant*** in EIA terms.

In relation to climate change vulnerability, it has been assessed that there are no significant risks to the proposed development because of climate change. The residual effect of climate change on the proposed development is considered ***direct, long-term, negative*** and ***imperceptible***, which is overall ***not significant*** in EIA terms.

14.5 Monitoring

There is no monitoring proposed during the construction or operational phase in relation to climate.

CHAPTER 15 | Cultural Heritage: Archaeological Heritage

The assessment of Cultural Heritage – Archaeological Heritage is contained within Chapter 15 of Volume II.

Existing Environment

Two registered archaeological sites lie within the development footprint:

- Fulacht fia (CO073-065) – to be preserved *in situ* within a 10m buffer
- Maglin Country House (CO073-097) – addressed in Chapter 16 – Built Heritage

In 2024, a geophysical survey (Licence 24R002) and follow-up testing identified two previously unknown enclosures in Fields M3 and M5. The development layout was revised to preserve both *in situ*, each within a 10m buffer, integrated into public green space.

Within a 1km radius (study area), 40 registered archaeological sites are recorded, reflecting human activity from the late Neolithic period onward.

Impact Assessment

Do Nothing Scenario

If the proposed development does not proceed, the existing landscape will remain unchanged, thereby preserving its current condition and allowing known and unknown potential archaeological sites to remain undisturbed beneath the surface, thus preserving the cultural heritage landscape.

Demolition Phase

No significant archaeological or cultural heritage effects are predicted during the demolition phase.

Construction Phase

Known archaeological sites

- The fulacht fia (CO073-065) will be preserved *in situ*;
- The two newly identified enclosures will also be preserved *in situ* within buffer zones.

As these features are fully protected within the development layout, no direct or indirect impacts are anticipated during construction.

Potential unknown archaeological sites or features

Groundworks may affect unrecorded archaeological remains. These potential impacts are direct and negative, but uncertain until further investigation. A programme of archaeological testing will be carried out in consultation with the Cork City Archaeologist to manage these risks.

Operational Phase

The fulacht fia and enclosures will be preserved in public green space with buffer zones. No significant impacts are expected during this phase. Ongoing protection will be guided by mitigation measures agreed with the Cork City Council Archaeologist.

Visual Impact Assessment

Two registered archaeological monuments lie within the proposed development site; a fulacht fia (CO073-065) and Maglin Country House (CO073-097). The fulacht fia is entirely subsurface and will be preserved *in situ* with a 10m buffer; it will not be visually impacted. Visual effects on Maglin Country House are addressed separately in the Built Heritage assessment (Chapter 16).

Within the wider study area, there are 38 registered archaeological sites; seventeen of these were previously excavated and removed during the N22 Ballincollig Bypass project and no longer influence the visual setting; eleven have little or no surface visibility, including various fulachtai fia, a burnt spread, standing stone, ringfort, enclosure, quarry, and church with graveyard; nine upstanding monuments exist, but none are visible from or to the proposed development due to topography, vegetation, and buildings.

The most prominent site, Ballincollig Castle and bawn (CO073-062, CO073-062001), is located 845m away but is not intervisible with the proposed development due to modern changes within the landscape. The nearest upstanding monument, a limekiln (CO074-064), just outside the site, may experience a slight change in setting, but existing hedgerows will screen it effectively. No significant visual impacts are anticipated.

Cumulative Impact

The proposed development comprises a large-scale residential scheme, alongside two associated infrastructure elements:

- The Maglin Sustainable Access Corridor (approx.. 570m), extending northeast to the Heathfield Residential Development.
- A proposed Link Road (approx.. 720m), connecting northwest to the Maglin Road.

Together, these components have the potential to result in cumulative effects on archaeological heritage, due to their combined spatial footprint, proximity to known archaeological sites, and their location within a landscape of recognised archaeological sensitivity.

Mitigation

Incorporated Design

Two registered archaeological sites - a fulacht fia (CO073-097) and Maglin Country House (CO073-097) - are situated on the proposed development site. Mitigation measures relating to Maglin House are addressed in Chapter 16 – Built Heritage. In addition, two levelled enclosures, identified during archaeological investigations, are also situated within the site boundary. These sites, along with the fulacht fia will be preserved *in situ* as part of the final development layout. To ensure their ongoing protection, the following mitigation measures will be implemented:

- The fulacht fia and enclosures will be incorporated into designated green open spaces within the completed development, thereby avoiding any direct physical impacts.
- A minimum 10m buffer zone will be maintained around the known extents of the fulacht fia and enclosures. No ground disturbance, planting of deep-rooted vegetation, or construction activity will be permitted within these buffer zones.
- The monuments and their buffer zones will be securely fenced off during construction to prevent inadvertent disturbance. Their locations, along with their buffer zones, will be clearly identified on final site drawings and communicated to contractors and landscape teams throughout construction and post-construction phases.
- Information plaques may be considered to convey the archaeological significance of the fulacht fia and two enclosures to the public, subject to approval by the Cork City Archaeologist.

Pre-Construction Archaeological Testing

In consultation with the Cork City Council Archaeologist, the following additional mitigation strategy will be implemented:

- Licenced archaeological testing will be carried out across approximately 10–12% of the overall development site prior to any groundworks.
- The scope and methodology of testing will be prepared in consultation with the Cork City Archaeologist and submitted for approval before commencement.
- Should previously unknown archaeological features be identified during testing, both the National Monuments Service and Cork City Council will be notified immediately.
- All new archaeological discoveries will be addressed through preservation *in situ* or by record, depending on their nature, extent, and significance.

  Preservation *in situ* may require the redesign or relocation of specific elements of the development to avoid impacting sensitive archaeological areas.

  Preservation by record will involve full archaeological excavation, carried out under licence and in accordance with the Policy Guidelines on Archaeological Excavation (Department of Arts, Heritage, Gaeltacht and the Islands). This work will be conducted to professional archaeological standards and will be funded by the developer.

Demolition & Construction Phases

No significant archaeological or cultural heritage effects are predicted during the demolition phase of the proposed development; therefore, no mitigation measures are proposed.

Operational Phase

No archaeological or cultural heritage effects are predicted during the operational phase of the proposed development; therefore, no mitigation measures are proposed.

Construction Phase Mitigation

The requirement and scope of, archaeological monitoring during the construction phase will be determined based on the results of pre-construction archaeological testing. Following submission of the testing results, further consultation will take place with the Cork City Council Archaeologist. Where deemed necessary, archaeological monitoring will be carried out during construction.

Should archaeological features or deposits be revealed during these investigations, both the National Monuments Service and the Planning Authority will be consulted. All newly identified archaeological sites will be preserved *in situ* or by record and sufficient time and resources will be allowed to resolve all archaeological matters. Preservation *in situ* will require the relocation of the element of the development beyond the area of archaeological sensitivity. Preservation by record will require the excavation of the archaeological material and such material will be fully resolved to professional standards of archaeological practice (Policy Guidelines on Archaeological Excavation – Department of Arts, Heritage, Gaeltacht, and the Islands). This work will be funded by the developer.

Residual Impact Assessment

Following a comprehensive assessment, the residual effects of the proposed development on the archaeological and cultural heritage environment are assessed as not significant. There are two registered archaeological monuments located within the proposed development site: a fulacht fia (CO073-065) and Maglin Country House (CO073-097). The latter is addressed separately in Chapter 16 – Built Heritage.

In addition, archaeological investigations identified two previously unrecorded enclosures, which will be preserved *in situ* within designated green open spaces, alongside the fulacht fia. The development layout has been designed to avoid direct impacts on these features.

Although these preservation measures greatly reduce risk, it is acknowledged that large-scale ground disturbance during construction could impact previously unknown subsurface archaeological remains. To address this, pre-construction archaeological testing will be carried out under licence. Should new features be uncovered, further consultation with the Cork City Archaeologist will determine appropriate responses, which may include: preservation *in situ* or preservation by record (full excavation and documentation).

With these mitigation measures in place, the proposed development is not expected to result in any significant residual impacts on the archaeological heritage resource.

Monitoring

The requirement and scope of, archaeological monitoring during the construction phase will be determined based on the results of pre-construction archaeological testing. Following submission of the testing results, further consultation will take place with the Cork City Council Archaeologist. Where deemed necessary, archaeological monitoring will be carried out during construction, preservation in situ/by record will be undertaken in consultation with the Planning Authority and National Monuments Service.

CHAPTER 16 | Cultural Heritage: Built Heritage

Chapter 16 presents an assessment of the potential effects of the proposed proposed development on the built heritage environment (the chapter should be read alongside Chapter 15, which focuses on archaeological heritage).

The proposed development site is located near Ballincollig and includes a disused farmhouse and associated structures. The site features Maglin House, outbuildings, and a walled garden/orchard. While none of the structures on site are protected structures, Maglin House is a recorded monument and therefore is protected under archaeological protection legislation.

The assessment methodology includes desktop research, site inspections, and evaluation of impacts on built heritage. Sources consulted include historical maps, aerial photography, and local development plans. Site inspections were conducted on three occasions to evaluate the condition of structures. The site is primarily agricultural land with no protected structures but includes Maglin House, a recorded monument. A 500-metre study area identified one protected structure, a lime kiln (Cork City Council 's Record of Protected Structures (RPS) Reference Number 1226), nearby. The closest NIAH-recorded structure is Ballincollig Presbytery, located 600 meters away.

The site contains several buildings, including Maglin House and its associated structures, all in poor condition. Maglin House is a two-storey late eighteenth/early nineteenth century house that is in an advanced state of decay and little architectural heritage significance. The gate lodge and outbuildings are also in disrepair, with some areas inaccessible due to structural issues.

If no development occurs, the existing structures will continue to deteriorate. Maglin House and associated buildings are likely to face further decay, with potential roof collapses. The do-nothing scenario would have moderate to significant negative impacts on the built heritage character of the site.

The chapter outlines potential significant effects during the demolition phase of the proposed development. The proposed development will retain and refurbish significant heritage structures while ensuring no adverse effects on built heritage resources occurs. In particular, Maglin House and the former gate lodge area to be retained and refurbished. Localized sections of orchard walls will be removed for new paths, with no significant effects anticipated. Derelict outbuildings proposed for demolition have negligible heritage significance.

The construction phase will positively affect the built heritage through repair and refurbishment efforts. Repair and refurbishment of Maglin House and the former gate lodge will occur. The walls of the orchard/garden will also be repaired, leading to moderate to significant positive effects on built heritage. Supervision of the works by qualified conservation specialists will mitigate potential negative impacts.

The operational phase will maintain and enhance the built heritage features of the development. Maglin House, the gate lodge, and orchard walls will be retained and reused. The former orchard will serve as accessible landscaped open space. No significant adverse effects on built heritage resources are predicted during this phase.

The development has limited potential for cumulative effects on built heritage resources as the proposed large-scale residential scheme includes infrastructure elements with no direct or indirect impacts on protected structures. No development proposals in the vicinity are expected to affect built heritage resources. Mitigation measures integrated into the design will ensure no significant cumulative effects.

A series of mitigation measures are proposed to protect built heritage during all phases of development. In particular the development design incorporates Maglin House and the former gate lodge as key features. Built heritage recording will be undertaken of the outbuilding prior to demolition. Construction works will be supervised by experienced contractors and conservation consultants. A conservation method statement accompanies the EIAR chapter (see **Appendix 16.2**) and it will guide the repair and refurbishment processes.

The proposed development is expected to have no significant residual impacts on built heritage. No significant effects predicted during demolition, construction, or operational phases. Cumulative effects on built heritage will be effectively mitigated. Monitoring and reporting will ensure compliance with heritage protection measures.

In conclusion, the development will not adversely affect built heritage resources, ensuring preservation and enhancement of significant structures. No protected structures or architectural conservation areas are within the site. The nearest protected structure, a lime kiln, will not be impacted. Key heritage features will be retained and refurbished, with no significant adverse effects anticipated.

CHAPTER 17 | Screening for Major Accidents

17.1 Introduction

This assessment is a review of major accident hazards and disasters based on the engineering design, drawings and documentation.

17.2 Methodology

Alongside the legislation, policy, and guidance outlined in Chapter 1, the following relevant legislation, policy, and guidance has informed the preparation of this chapter:

- EPA 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (2022),
- EPA 'Advice Notes on Current Practice in the Preparation of Environmental Impact Statements' (2018),
- Health and Safety Authority Guidance on Technical Land-Use Planning Advice, for planning authorities and COMAH establishment operators (2023)
- Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015
- HSA Guide to the COMAH Regulations 2015 (S.I. No. 209 of 2015)
- Building Regulations (Part A Amendment) Regulations 2012 (as amended) (SI No. 138 of 2012)
- Safety, Health and Welfare at Work (Construction) Regulations 2013 (as amended) (hereafter referred to as the Safety, Health and Welfare (Construction) Regulations) (S.I. No. 291 of 2013)
- A Framework for Major Emergency Management. Guidance Document 10 (DECLG 2015)

17.3 Baseline Environment

17.3.1 Seveso Establishments

There are no Seveso establishments within 10km of the Proposed Development; therefore, there are no constraints to the Proposed Development at this location from nearby Seveso establishments.

17.3.2 Flood Risk

The Flood Risk Assessment completed by ARUP concluded that the overall risk of flooding on the subject site, from fluvial, tidal, pluvial, and groundwater sources, is very low and the site is deemed to be located within Flood Zone C. The development will not have any impact on the flood extents or flood risk to other sites. There is also no flood storage uptake due to the proposed development.

The proposed development is a 'highly vulnerable development', but lies within Flood Zone C. Thus, a Justification Test in accordance with the OPW Guidelines was not deemed necessary and the development will not any adverse impacts on the floodplain.

17.3.3 Seismic Activity

There is no significant seismic activity recorded in the vicinity of the Proposed Development. Therefore, the likelihood of seismic activity impacting the Proposed Development is unlikely and not significant.

17.4 Characteristics of the Proposed Development

The Proposed Development is a non-COMAH site and the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, 2015 (COMAH Regulations 2015) does not apply.

17.4.1 Predicted Impacts

The potential impacts of the construction and operational phases of the Proposed Development are outlined below.

17.4.1.1 Do Nothing Scenario

Under a 'do-nothing' scenario there is no known or anticipated change to the Major Accidents and Disasters risk at the Proposed Development site.

17.4.1.2 Construction Phase

No scenarios of concern have been identified during the construction phase. As such the predicted impact is considered to be short term, imperceptible and neutral.

17.4.1.3 Operational Phase

The proposed development is not located in an area prone to flooding, seismic events, or within close proximity to a COMAH/Seveso site. As such, these accident scenarios are not of concern. Therefore, the impact is considered to be long term, imperceptible and neutral.

17.4.1.4 Effects

Cumulative impacts are considered imperceptible and neutral.

17.5 Mitigation Measures

The Proposed Development has been designed in line with good industry practice, and, as such, mitigation against the risk of major accidents and/or disasters is embedded through the design and in accordance with planning and legislative requirements. As no likely significant effects were identified, no additional mitigation measures are proposed.

17.6 Residual Impacts

The residual effects are the final predicted or intended effects which occur after the proposed mitigation measures have been implemented. As no likely significant effects were identified, no additional mitigation measures are proposed. Therefore, residual effects are not relevant for this assessment.

CHAPTER 18 | Significant Interactions

The construction, operational and cumulative impacts of the proposed development have been assessed within each chapter of the EIAR. This chapter provides a summary of the significant interactions of impacts identified in the previous chapters.

All potential inter-relationships impact between the various areas covered in the EIAR are listed and the key interactions and interrelationships are summarised. Mitigation measures outlined where required.

With mitigation measures in place, no significant residual negative impacts are predicted.

CHAPTER 19 | Summary of Mitigation Measures

Chapter 19 provides a consolidated summary of the proposed mitigation and monitoring measures identified across all environmental disciplines throughout the EIAR. These measures are designed to avoid, reduce, or offset any likely significant adverse impacts associated with the proposed development.

Each specialist chapter has identified specific measures tailored to their area of assessment, including but not limited to population and human health, land and soils, water, biodiversity, noise and vibration, and traffic and transport. These measures have been integrated into the project design or will be implemented during construction and operation as appropriate.

Some disciplines have also recommended monitoring following the implementation of mitigation. Monitoring will take place post-consent to verify that the development performs as predicted and that mitigation measures function effectively. This monitoring will help ensure compliance with consent conditions and performance standards and will provide early detection of any unexpected impacts or mitigation failures.