KILNAHUE GOREY EIAR

VOLUME I

Non-Technical Summary



McCutcheon Halley
CHARTERED PLANNING CONSULTANTS

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CHAPTER 1 | Introduction

1. 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 300 no. residential units, a creche, and all associated site development works.

1.2 Site Location and Description

The subject site is located in Kilnahue and Gorey Hill, to the west of the Gorey Town Centre and to the north of the M11. An educational campus is located to the east, adjacent the site, The greenfield site currently consists of agricultural fields and field boundaries and slopes from the northeast corner to its southern and eastern extents and is bounded by Kilnahue Lane (L10112) to the northeast and the Carnew Road (R725) to the south. There are existing ruined buildings and laneway on the site which will be retained as part of the proposed scheme.



Figure 1.1 Site Location

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 18 chapters as follows:

Chapter	Chapter Title	
1	Introduction	McCutcheon Halley
2	Site Location & Proposed Development	McCutcheon Halley
3	Alternatives Considered	McCutcheon Halley
4	Population & Human Health	McCutcheon Halley
5	Land, Soils & Geology	Viridus consulting
6	Hydrology & Hydrogeology	Viridus consulting
7	Air Quality	AWN Consulting
8	Climate Change	AWN Consulting
9	Noise & Vibration	AWN Consulting
10	Landscape & Visual	Modelworks
11	Waste Management	AWN Consulting
12	Material Assets: Traffic & Transport	NRB Consulting
13	Material Assets: Built Services	AKM Consulting with M&E input from Kerrigan Consulting
14	Biodiversity	Altemar
15	Archaeology and Cultural Heritage	John Cronin and Associates
16	Screening for Major Accidents (Risk)	AWN Consulting
17	Significant Interaction of Impacts	McCutcheon Halley
18	Summary of Mitigation Measures & Monitoring	McCutcheon Halley

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 l and use is retail or commercial use)*

The proposed Large Scale Residential Development (LRD) is for 413 no. residential units on a net developable site area of c. 11.5 hectares. While this does not exceed the threshold of 500 units set out in 10(b)(i), a mandatory EIA is required under the provisions of Part 2, 10(b)(iv) as the proposed development site exceeds the threshold of 10ha within the built-up area of Ennis, Co. Clare.

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 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

Quality of Effect	
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.

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

Responses received are presented in Appendix 1.1

CHAPTER 2 | Project Description

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. 11.5ha is located west of Gorey town centre and occupies a green field site bounded by Kilnahue Lane (L10112) to the northeast and the Carnew Road (R725) to the south. In the immediate context of the site is Educational Campus to the east and Gorey Town Centre is c. 1.65 kilometres to the east of the subject site. The site is located near a variety of facilities in Gorey town within a 20-minute walking distance.

The site itself is made up of a group of green fields subdivided by a variety of hedgerows. There is also an old disused laneway that cuts through the site, which is lined by trees and hedgerows. The laneway is very overgrown but would have previously provided a connection between Kilnahue Lane and Carnew Road. At the northern end of this laneway there are historical ruined buildings which are also significantly overgrown.

2.3 Description of Proposed Development

The proposed Large Scale Residential Development comprises the construction of 413 no. residential units (36 no. 1 beds, 134 no. 2 beds, 204 no. 3 beds, 39 no. 4 beds), a creche, and all associated site development works.

The 413 no. residential units are provided as detached and semi-detached houses, townhouses, and apartment/duplex/maisonette units. There are 349 no. houses proposed and 64 no. apartments/duplexes/maisonettes.

These houses 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 creche, located to the west of the site at the access point on Kilnahue Lane, will provide 102 no. childcare spaces and a community room.

Connectivity is one of the central design principles of the proposed scheme. Logical movement routes through the new hierarchy of streets and paths assists vital future connections and the integration of the scheme into its context. The positive impact of the improved connectivity provides local residents with new links to encourage a modal shift to walking and cycling.

A total of 667 no. car parking spaces and 586 no. bike parking spaces are provided within the scheme.

To ensure the visual integration of the site, the proposed development will promote, where possible, the protection and enhancement of natural features on site, including hedgerows and tree lines, including the old laneway to provide a defined pedestrian/cycle route through the site.

Particular attention was placed in the design of the public open spaces to create a strong and well-connected network of usable and enjoyable green areas, cycle and pedestrian paths, plazas and shared surfaces. These features will enhance/ contribute to a sense of place.

The proposal includes 15% of the developable area as public open space. In addition, the land zoned public open space will provide further public open space to serve the wider area, which does not contribute to the 15% public open space.

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

Construction of the residential development will take place over 4 phases, and it is estimated to take 48 months to complete.

CHAPTER 3 | Alternatives

3. Alternatives

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.

3.1 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 Ennis.

3.2 Alternative Locations

The subject site is within the settlement boundary of Gorey and is zoned for residential development. Therefore, the subject site was considered an appropriate location for the proposed development, and no alternative locations were considered.

3.3 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 Wexford County Council and the previous planning history on the site.

The scheme has undergone a rigorous appraisal, which has led to a final layout that responds appropriately to the site characteristics, opportunities and constraints. 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.

3.4 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.

3.5 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.

3.6 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

3.7 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. 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 12,516 no. persons in 2022 census. 6.4% of the population was aged 0-4, with 12.8% of primary school age, and 10.3% of the population of post-primary school age.

The average household size was 2.74 no. persons per household with 52% of the households were just one or two person households.

There are 6 no. primary schools, 3 no. post primary schools, and 2 no. special schools in Gorey. Two of the primary schools and one post primary school are located in the education campus on Kilnahue Lane, adjacent the proposed development.

There are a total of 7 no. existing childcare facilities within 2km of the site, including one located within the educational campus adjacent to the site.

There are 19 no. health and medical facilities in Gorey including 1 hospital, 8 no. medical/primary care centres, 3 no. dental practices, and 7 no. pharmacies.

There is a wide sports and recreational facilities in the area.

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 Gorey is expected to have a permanent, positive impact on the town.

Based on the local household size (2.74 no. persons), the proposed 413 no. houses will increase the local population by c. 1,132 no. persons.

Based on the 2022 population, the proposal will likely result in c. 72 no. children aged 0-4, c. 145 no. primary school aged children, and c. 117 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.

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 area. The delivery of much needed housing will realise a likely significant positive effect for the local area.

CHAPTER 5 | Landscape & Visual

5. Landscape & Visual

The assessment of the effects on landscape character and visual amenity is contained in Chapter 5 of Volume II.

5.1 Existing Environment

5.1.1 Landscape Character

The site is located at the western edge of Gorey, within the settlement boundary (as defined in the Gorey LAP), approximately 1.5km from the commercial core of the town. The site has frontage to Kilnahue Lane to the north east, and the R725 Carnew Road to the south. The Carnew Road is the main road entering the town from the west, and leads directly to Main Street in the town centre.

The landscape of the receiving environment is peri-urban in character, i.e. composed of both urban and rural elements and influences, typical of an area in the process of urban expansion:

- The existing urban area lies to the east of the site. This area is characterised by modern suburban housing and schools. There is a multi-school campus just across Kilnahue Lane/Gorey Hill from the site. The large-footprint but low school buildings give the area a particular character and identity. Gorey Hill, the road leading to the schools, has been upgraded to an urban specification.
- Along Kilnahue Lane and Carnew Road, which passes to the south of the site, there is a relatively high density of ribbon development, giving the roads a suburban character in places as they approach the town. Among the houses are a number of business premises typical of peri-urban areas, including a petrol station and motor dealership, a car wash and a vet.
- Extending to the south, west and north of the site, beyond the settlement boundary, is Gorey's rural hinterland. The area is characterised by fields of various size and shape divided by hedgerows, with scattered farm clusters. The most notable characteristic of the area is the steeply undulating topography.

5.1.2 The Site

The site is comprised of (a) four fields of varying shape and size on the side of a steep hill, (b) an overgrown plot containing the ruins of stone farm buildings, and (c) an old lane that separates the bottom field from the other fields up the hillside.

The fields are divided by hedgerows. These are mostly low, with few trees, apart from the eastern field's hedgerows which contain a number of trees of substantial size. The overgrown plot in the north east corner of the site is enclosed by a shelter belt of trees, and there is a stand of scrubby woodland east of this, extending into the lower field. The historic lane that traverses the site (dividing the lower field from the remainder of the site) is enclosed by dense, overgrown hedgerows.

There are hedgerows with trees on the site boundaries along both the Carnew Road and Kilnahue Lane. While the hedgerows are mostly of limited aesthetic value, there are a number of fine oak trees in the roadside hedgerow of the north eastern field.

The site's most notable characteristic is its topography. The ridge of the hill runs parallel to the north west boundary, just outside the site. (As a result, the site is hidden from view from the north and west, from the far side of the ridgeline.) The land falls 30m from the north west corner to the south and east corners of the site. This gradient will be a determining

factor in the design of any development on the site. This was reflected in the layout guidance provided for the site in the Gorey LAP.

The LAP's zoning/reservation of the north western part of the site for Open Space also took account of the topography. This ensures that no buildings can be positioned on the ridgeline.

5.1.3 Potential Receptors of Landscape and Visual Change

Due to the local topography, specifically the ridgeline that runs parallel to the site's north west boundary, there is limited visibility of the site from the north and west. The potential receptors of landscape and visual change are all located to the south and east. The main potential receptors are as follows:

- The users of the R725 Carnew Road, which passes to the south of the site. The site has approximately 70m frontage to the road. Along this stretch, as the road approaches Gorey, there is already a relatively high density of ribbon development on the north side of the road. The landscape is peri-urban in character, and road users are typically of lower sensitivity to change (particularly on non-scenic routes and entering an urban area). There is thus capacity to accommodate change – and to consolidate the land use in line with compact growth policy.
- The existing houses fronting the Carnew Road immediately to the west and south of the site. These houses form part of the peri-urban landscape and are themselves urban-generated. Nonetheless, as residential receptors they are sensitive to change in their environs.
- The users of Kilnahue Lane, which passes to the north east of the site. The site has approximately 280m frontage to the lane. The lane is narrow and enclosed by vegetation, giving it a rural character. However, (a) there is a row of suburban houses directly across the lane, opposite the site, and (b) this stretch of the lane falls inside the Gorey settlement boundary; this is the final stretch of the lane before it enters the urban area. Therefore, while the lane is attractive in its current form, it must be recognised that its context is - at least in part - urban. This context demands some tolerance for change.
- The houses on the north east side of Kilnahue Lane. While these houses enjoy a high level of landscape and visual amenity currently (owing to their enclosure on three sides by agricultural land), it must be recognised that they are themselves urban-generated and they adjoin the urban area. They are sensitive receptors, but due to their urban-edge location there must be some tolerance for change in their environs.
- Gorey Hill and the Creagh schools campus. The large, modern campus diagonally across Kilnahue Lane from the site is of low sensitivity to change. The schools were located to serve the expanding urban area.

5.2 Impact Assessment

5.2.1 Do Nothing Scenario

In the do-nothing scenario, the site would remain in agricultural use, forming part of the peri-urban landscape at the western edge of the Gorey urban area. The residential and open space land use objectives for the site, as expressed in the Gorey LAP, would remain unrealised.

5.2.2 Construction Phase – Landscape Effects

Landscape Sensitivity

Informed by the analysis of the baseline environment and consideration of relevant policy, the landscape sensitivity of the receiving environment can be classified 'medium'.

(Definition of medium sensitivity: Areas where the landscape has certain valued elements, features or characteristics but where the character is mixed or not particularly strong, or has evidence of alteration, degradation or erosion of elements and characteristics. The landscape character is such that there is some capacity for change. These areas may be recognised in landscape policy at local or county level and the principle management objective may be to consolidate landscape character or facilitate appropriate, necessary change.)

The classification of medium sensitivity is based on the following factors:

- The site lies within the settlement boundary of Gorey and is zoned for residential development and public open space. (The Wexford CDP and Gorey LAP were subject to Strategic Environmental Assessment; therefore the principle of urban development of the lands was deemed desirable/acceptable in principle.)
- The site adjoins the urban area, and extends into a landscape of peri-urban character, composed of both urban and rural elements and influences. Peri-urban landscapes are not highly valued; urban consolidation and compact growth policy favour a clear delineation between urban and rural landscapes.
- The site includes a number of elements of local landscape value. These include the internal field boundary hedgerows (particularly those featuring trees), the historic lane (enclosed by overgrown hedgerows), a cluster of ruined vernacular stone buildings (and the trees on this plot), and the boundary hedgerows/tree lines along the R725 Carnew Road and Kilnahue Lane. The site's key characteristic is its steeply sloping landform. While the site is zoned for development, these elements and characteristics require consideration – and protection/ reuse where possible - in the design and future use of the site.
- Due to its urban-edge location and peri-urban context, there are a number of houses in proximity to the site, notably along the R725 Carnew Road and across Kilnahue Lane from the site. As residential receptors these houses are sensitive, but due to their location (adjoining or close to the urban area and lands zoned for urban expansion), there must be some tolerance for change in their environs.
- Gorey and the site are located in Co. Wexford's 'Lowlands' Landscape Character Unit (LCU). The Lowlands LCU has a landscape sensitivity rating of 'Low'. The CDP states: *"Low sensitivity landscapes* [such as the Lowlands LCU] *are more robust landscapes which are tolerant to change and have the ability to accommodate development without significant adverse impacts on the character of the landscape."*
- There are no scenic routes or protected views in the vicinity of the site. Nor are there any planned views or vistas, heritage properties, monuments or Architectural Conservation Areas, etc. on or close to the site.

Magnitude of Landscape Change

Over the course of the estimated 48 month construction period, the site would be disturbed by construction activity including the erection of site hoarding, site clearance and earth works, haulage and storage of materials, general construction activity and the incremental growth of buildings on site.

The magnitude of landscape change would be medium in the immediate environs (e.g. affecting road users and the nearby houses on the R725 Carnew Road and Kilnahue Lane), reducing with increased distance from the site.

Significance of Construction Phase Landscape Effects

Measuring the magnitude of change against the landscape sensitivity, and taking account of the limited duration of the construction phase, the significance of the landscape effects would be 'moderate-slight' (the effects reducing with increased distance from the site). Construction is inherently disturbing of the landscape. In summary, the landscape effects during construction would be of 'moderate-slight' significance, negative, and direct.

5.2.3 Construction Phase – Visual Effects

Informed by the analysis of the receiving environment and relevant policy, 11 no. viewpoints were selected for detailed visual effects assessment informed by verified photomontages. The following table summarises the likely visual effects during the construction phase of the proposed development before mitigation measures are applied.

Viewpoint Location	Medium	Visual Effects - CONSTRUCTION PHASE (Temporary	
		Medium	Significance of Effects
1. R725 Carnew Road approaching site from west	Medium	Low	Not significant negative
2. R725 Carnew Road along site frontage	Medium	Medium-High	Slight negative
3. R725 Carnew Road at neighbouring house	Medium	Medium-High	Moderate negative
4. R725 Carnew Road entering Gorey	Low-Medium	Low	Not significant negative
5. The Lask estate	Medium	Negligible	Not significant neutral
6. Creagh schools campus entrance	Low-Medium	Low	Not significant negative
7. Kilnahue Lane near north east corner of site	Medium	High	Slight negative
8. Kilnahue Lane midway along the site frontage	Medium	High	Slight negative
9. Kilnahue Lane at proposed entrance	Low-Medium	Very High	Slight negative
10. Kilnahue Lane near north west corner of site	Medium-High	Medium	Slight negative
11. Westhill Park	Low-Medium	Low	Slight negative

5.2.4 Operational Phase – Visual Effects

The following table summarises the likely visual effects during the operational phase of the proposed development before mitigation measures are applied.

Viewpoint Location	Medium	Visual Effects - CONSTRUCTION PHASE (Temporary	
		Medium	Significance of Effects
1. R725 Carnew Road approaching site from west	Medium	Low	Slight neutral
2. R725 Carnew Road along site frontage	Medium	Medium-High	Moderate positive

Viewpoint Location	Medium	Visual Effects - CONSTRUCTION PHASE (Temporary	
		Medium	Significance of Effects
3. R725 Carnew Road at neighbouring house	Medium	Medium-High	Moderate neutral
4. R725 Carnew Road entering Gorey	Low-Medium	Low	Not significant neutral
5. The Lask estate	Medium	Negligible	Not significant neutral
6. Creagh schools campus entrance	Low-Medium	Low	Not significant neutral
7. Kilnahue Lane near north east corner of site	Medium	High	Moderate positive
8. Kilnahue Lane midway along the site frontage	Medium	High	Moderate positive
9. Kilnahue Lane at proposed entrance	Low-Medium	Very High	Moderate neutral
10. Kilnahue Lane near north west corner of site	Medium-High	Medium	Moderate positive
11. Westhill Park	Low-Medium	Low	Slight neutral

5.2.5 Operational Phase – Landscape Effects

Landscape Sensitivity

The landscape sensitivity of the receiving environment can be classified 'medium'.

Magnitude of Landscape Change

The magnitude of landscape change that would result from the proposed development can be classified 'medium'.

(Definition of medium magnitude of change: *Change that is moderate in extent, resulting in partial loss or alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that may be prominent but not necessarily substantially uncharacteristic in the context. Such development results in change to the character of the landscape).*

The medium magnitude of change classification is based on the following:

- With a developable site area of 11.5 ha and comprised of 413 homes, a creche and an extensive network of open space, the proposed development is of large scale/spatial extent (in the context of Gorey).
- However, due to (a) the local topography, (b) existing vegetation in the landscape, (c) the modest height of the buildings, (d) avoidance of building on the upper slope of the site (as required by the Gorey LAP), and (e) the separation of the majority of the site from the existing public realm and private properties, the proposed development's zone of visibility/ influence would be limited. The main areas and receptors potentially affected are the stretches of the R725 Carnew Road and Kilnahue Lane as they pass by the site, and the relatively small number of houses along those roads beside or opposite the site.
- These limited areas/receptors would experience a change in landscape character - from peri-urban

to urban. The site's development would expand the urban area and effectively incorporate the adjacent roads and existing residential properties into Gorey's urban landscape, albeit at the urban-rural edge.

- While this change would be locally significant, it must be considered that (a) the site falls into the defined settlement boundary and is zoned for development in the Gorey LAP, and (b) the nature of the proposed development is not alien in the context:

  - The proposal does include some higher density housing typologies (apartment/duplex blocks, as required by compact growth policy), but these buildings are limited in number (relative to terraced and semi-detached houses which make up the majority of the scheme) and in scale (only three storeys tall).

  - It is also a factor that some larger scale buildings already occur in the vicinity (the three schools and a motor dealership/showroom).

In summary, the local area (Creagh and the western edge of Gorey) would experience a shift in landscape character, from peri-urban to urban. This change is plan-led and already in process (with other residential developments taking place elsewhere in the Creagh area). Additionally, the visibility of the change would not be widespread; the landscape and visual effects would be localised.

Significance of Operational Phase Landscape Effects

Measuring the magnitude of change against the landscape sensitivity, the landscape effects of the development in the operational phase would be of 'moderate' significance.

(EPA definition of moderate significance: *An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends).*

The key question is whether the effects can be classified positive, neutral or negative. In this regard:

- The development includes a large neighbourhood park, a woodland parkland on the OS-zoned hilltop portion of the site. This would be a significant gain in landscape and visual amenity of the area, and an important addition to the town's green infrastructure network.
- A proportion of the internal field boundary hedgerows and trees would be retained and incorporated into the neighbourhood's open space/green infrastructure network. The objective to retain the hedgerows informed the proposed layout/block structure of the neighbourhood.
- The proposed species mixes throughout the scheme have been selected to support native pollinators and strengthen local ecosystems, with the objective to achieve net biodiversity gain (see p. 22 of the Landscape and Green Infrastructure Report by Simon Ronan Landscape Architects, October 2025).
- The proposal is thus compliant with Objective NH10 of the Wexford CDP: *"To ensure that traditional field boundaries, ponds or small woods which provide important ecological corridors, stepping stones or networks are protected. Where such features exist on land which is to be developed the applicant should demonstrate that the design of the development has resulted in the retention of these features insofar as is possible and that the existing biodiversity value of the site has been protected and enhanced."*
- The proposal would require the removal of some 280m of hedgerow along the Kilnahue Lane boundary. This includes several fine oak trees in the hedgerow. This constitutes a loss of existing landscape/visual assets, but the upgrade of the road is required to facilitate the site's development for anything other than its current agricultural use. To compensate for the loss, a new row of trees (and a double row in places) is proposed in a wide green verge alongside the road. This would maintain a leafy/green

character along Kilnahue Lane.

- The proposal is thus compliant with CDP Objective NH13: *"To ensure applications for development include proposals for native planting and leave a suitable ecological buffer zone between the development works and any areas or features of ecological importance. To minimise the removal of hedgerow and natural boundaries, and where hedgerows are required to be removed the applicant/ developer will be required to reinstate the hedgerows with a suitable replacement of native species."*
- The proposed development retains and repurposes the cluster of ruined vernacular buildings on the site, incorporating them in an open space beside the creche, as part of a community hub.
- The development would infill an existing area of peri-urban landscape and thereby consolidate the urban area and clearly define the western urban edge of Gorey. These are positive changes in urban design terms, as well as representing a more sustainable use of land. The development would thus realise Objective TV04 of the CDP: *"To promote compact urban form, which is appropriate to context, in the interests of the efficient use of resources and optimising the opportunities to walk and cycle and the feasibility of public transport".*
- The proposed development's inclusion of a hilltop woodland park, and the associated avoidance of buildings on the ridgeline (in accordance with the Gorey LAP), would ensure that the development is not unduly visually intrusive. As well as realising the LAP's Open Space objective, this complies with Objective L06 of the CDP: *"To ensure that developments are not unduly visually obtrusive in the landscape, in particular, in or adjacent to the Upland, River Valley, Coastal or Distinctive Landscape Character Units".*
- The positioning of a three storey apartment/duplex block (an urban building typology) fronting the R725 Carnew Road is in accordance with the Gorey LAP's designation of the road as a 'Main Street' (see Figure 11 'Route Concept' of the Creagh Neighbourhood Framework Plan contained in the LAP). The building would reinforce the road's status in the urban structure, and mark its entrance into the urban area.
- In contrast, the deep setback of the houses along Kilnahue Lane, behind a hedge and a wide green verge with trees, is in keeping with the Gorey LAP's designation of that road as a 'Country Road/Street'.
- The verified photomontages and CGI views, which informed the visual effects assessment, show that the proposed development is designed with consideration and respect of the landscape context (its natural and built elements). The proposed buildings and public realm are of high design and material quality. The proposal is thus in accordance with:

  - CDP Objective TV14: *"To require that new buildings are of exceptional architectural quality, and are fit for their intended use or function, are flexible in the face of unknown future demands, durable in terms of design and construction, respectful of setting and the environment and to require that the overall development is of high quality, with a well-considered public realm".*

  - CDP Objective TV15: *"To ensure that the appearance of buildings, in terms of details and materials (texture, colour, patterns and durability), is of a high standard with enduring quality and has a positive impact on the visual quality of the area."*

- In its layout, architecture and landscape design the proposed development responds to, and reflects, the site's hillside topography, seeking to translate the design challenge of the gradient into a landscape/neighbourhood asset. This is in keeping with Objective ROS19 of the CDP: "To ensure that the design of residential schemes, including open spaces, optimises the existing features and topography of the site such as rivers, streams, rock outcrops, trees and hedgerows, and to ensure that biodiversity and green infrastructure are fully considered and

In summary, based on the analysis above and the visual effects assessment in Section 5.8.3 of Volume II, the operational phase landscape effects are classified as being of moderate significance, positive, and direct.

5.2.6 Cumulative Impact

No potential cumulative effects have been identified.

5.3 Mitigation

5.3.1 Incorporated Design

- The 'OS' (Open Space and Amenity) zoned hilltop portion of the site would be developed as a woodland park. The avoidance of built development in this more elevated/exposed part of the site would ensure that the development would not be unduly visually intrusive.
- In its layout, architecture and landscape design the proposed development responds to and reflects the site's hillside topography.
- A proportion of the internal field boundary hedgerows and trees, including the hedgerows enclosing the old lane crossing the site, would be retained and incorporated into the open space/green infrastructure network. The alignment of the hedgerows informed the proposed layout/block structure.
- The proposal would require the removal of some 280m of hedgerow along the Kilnahue Lane boundary. This includes several fine oak trees in the hedgerow. This constitutes a loss of existing landscape/visual assets. To compensate for the loss, a new row of trees (and a double row in places) is proposed in a wide green verge behind a hedge alongside the road. This would maintain a leafy/green character along Kilnahue Lane.
- The proposed houses along Kilnahue Lane are set well back from the road to allow for the compensation planting. This would also reduce the houses visibility/prominence from the existing houses across the road.
- While some loss of existing vegetation is unavoidable in the conversion of the lands from agricultural to residential use, it is intended that the development will result in net biodiversity gain - through the retention of a substantial proportion of the existing hedgerow and trees, the generous overall provision of open space (including the hilltop woodland park) and new vegetation (1,734 no. new trees are proposed), and selection of plant species mixes to support native pollinators.
- The ruined vernacular stone buildings on the site would be incorporated in a park functioning as a community hub, co-located with the creche, and positioned alongside the pedestrian and cycle route spine (the repurposed old lane crossing the site).

5.3.2 Construction Phase

The most effective mitigation for the negative landscape and visual effects of construction is site hoarding. This is only effective for ground level activity. When buildings under construction rise above ground level they are exposed and unsightly, as are the materials stockpiles, vehicles, etc. typical of a construction site. Some negative effects are therefore unavoidable in the construction phase. Nonetheless, to minimise the effects, it is recommended that site hoarding be erected around the site – where this is compatible with the protection of the boundary vegetation.

Good practice in site management can reduce unnecessary visual impacts. These may include (a) considered layout of the construction site with regard to the most sensitive visual receptors, (b) dust control (e.g. water sprays to avoid dust plumes; spraying of vehicles before site departure to avoid dirtying roads), (c) waste control (e.g. netting/covering of storage bins/areas; regular site inspection for litter), and (d) considered positioning of security lighting.

A Construction Environmental Management Plan (CEMP) has been prepared and submitted with the LRD application. The CEMP includes measures – or a framework for the agreement of measures - such as those identified above.

A Tree Protection Plan and Tree Appraisal and Arboricultural Assessment will be prepared by Charles McCorkell B.Sc. (Hons), MICFor, MArborA Chartered Arboriculturist.This will include measures for the protection of the site hedgerows and trees during construction.

5.3.3 Operational Phase

The design of the proposed development incorporates all necessary mitigation measures for operational phase effects. No further operational phase mitigation measures are required.

5.4 Residual Impact Assessment

5.4.1 Landscape Character

The residual landscape effects during construction would be of moderate-slight significance, negative, and direct.
The residual landscape effects during operation would be of moderate significance, positive, and direct.

Viewpoint Location	Viewpoint Sensitivity	Visual Effects - CONSTRUCTION PHASE (Temporary		Visual Effects - OPERATION PHASE (Permanent)	
		Magnitude of Change	Significance of Effects	Magnitude of Change	Significance of Effects
1. R725 Carnew Road approaching site from west	Medium	Low	Not significant negative	Low	Slight neutral
2. R725 Carnew Road along site frontage	Medium	Medium-High	Slight negative	Medium-High	Moderate positive
3. R725 Carnew Road at neighbouring house	Medium	Medium-High	Moderate negative	Medium-High	Moderate neutral
4. R725 Carnew Road entering Gorey	Low-Medium	Low	Not significant negative	Low	Not significant neutral
5. The Lask estate	Medium	Negligible	Not significant neutral	Negligible	Not significant neutral
6. Creagh schools campus entrance	Low-Medium	Low	Not significant neutral	Low	Not significant neutral
7. Kilnahue Lane near north east corner of site	Medium	High	Slight negative	High	Moderate positive
8. Kilnahue Lane midway along the site frontage	Medium	High	Slight negative	High	Moderate positive
9. Kilnahue Lane at proposed entrance	Low-Medium	Very High	Slight negative	Very High	Moderate neutral
10. Kilnahue Lane near north west corner of site	Medium-High	Medium	Slight negative	Medium	Moderate positive
11. Westhill Park	Low-Medium	Low	Slight negative	Low	Slight neutral

5.5 Monitoring

A key aspect of the proposed development is the retention of hedgerows, hedgerow trees and tree groups. During the construction phase, this vegetation would be vulnerable to damage caused by construction activity. It is therefore recommended that (1) the measures recommended by the arboricultural consultant for the protection of this vegetation be monitored throughout construction (to ensure its structural integrity and efficacy), and (2) that the health of the retained vegetation be monitored throughout construction (to ensure the efficacy of the protection measures and inform adjustment to the measures if required).

5.6 Description of Significant Interactions

Likely significant interactions are set out in Chapter 16 of the EIAR. In practice many impacts have slight or subtle interactions with other disciplines. During the preparation of this EIAR each of the specialist consultants engaged with each other with respect to the likely interactions between effects predicted as a result of the proposed development. Mitigation measures to alleviate identified likely significant effects address identified interactions. This approach meets with the requirements of Part X of the Planning and Development Act 2000, as amended, and Part 10, and schedules 5, 6 and 7 of the Planning and Development Regulations 2001, as amended.

5.6.1 Landscape/Visual and Population and Human Health (Noise and Dust Emissions)

During the construction stage, there is potential for negative landscape and visual effects of construction to combine with noise and dust emissions from the construction site to negatively impact the residential amenity of residential receptors near the site. The receptors most likely to experience such impacts are the neighbouring houses along the R725 Carnew Road and the houses along Kilnahue Lane.

5.6.2 Landscape/Visual and Population and Human Health

The proposed development would deliver a high quality new residential neighbourhood within walking distance of Gorey town centre, with access to schools, retail, employment, open space and other land uses and amenities provided by the town. The related change to the landscape character (of Creagh and the town's western edge) would have significant positive population and human health benefits (by providing homes offering a high level of residential amenities and encouraging Active Travel).

5.6.3 Landscape/Visual and Biodiversity

The proposed development would result in the loss of some of the site's hedgerows and trees (most notably along the Kilnahue Lane boundary). As well as being of landscape and visual amenity value, these are important habitat features, and their loss would have negative biodiversity impacts. A large volume of compensation planting is proposed, along Kilnahue Lane and elsewhere in the site, including in the new woodland park. This park would be a significant gain in landscape and visual amenity, as well as contributing to a net biodiversity gain.

5.7 Summary of Mitigation & Monitoring Measures

Likely Significant Effect	Mitigation	Monitoring
Negative visual effects of construction activity on site	Site hoarding	Regular inspection and maintenance of hoarding
Possible unplanned damage/loss of boundary hedgerow, hedgerow trees and tree groups during construction	Hedgerow and tree protection measures recommended by Arboricultural consultant	Monitoring of the structural integrity and efficacy of hedgerow and tree protection measures throughout construction phase
Possible unplanned damage/loss of boundary hedgerow, hedgerow trees and tree groups during construction	Hedgerow and tree protection measures recommended by Arboricultural consultant	Monitoring of the health of the retained hedgerows and trees throughout construction phase

CHAPTER 6 | Traffic and Transport

6.1 Executive Summary

Chapter 6 assesses the potential traffic and transport effects associated with the proposed Large Residential Development (LRD) at Kilnahue, Gorey, comprising 413 dwellings, a crèche, internal streets, parking, and extensive pedestrian and cycle infrastructure. The assessment has been prepared in accordance with EPA (2022) EIAR Guidelines, TII's Traffic and Transport Assessment Guidelines (2014), DMURS (2019), and the Wexford County Development Plan 2022–2028.

6.2 Baseline Environment

The site is accessed from the R725 Carnew Road and the L10112 Kilnahue Lane, both of which experience typical urban peak-period conditions, with AM congestion primarily attributable to the adjacent schools. No significant road safety issues or collision trends are identified, and no committed infrastructural upgrades are planned for the area.

6.3 Assessment Methodology

The Traffic and Transport Assessment (TTA) uses TRICS-derived trip generation, worst-case assignment, and detailed junction capacity modelling using TII-approved PICADY/ARCADY software. Baseline surveys undertaken in February 2025 inform existing conditions. All consultations with Wexford County Council are documented.

6.4 Potential Effects

No demolition impacts arise.

Construction phase effects relate mainly to short-term HGV movements, temporary increases in peak-period delay, and potential pedestrian/cyclist conflict near schools. Even under a worst-case estimate of earthworks and delivery traffic, impacts are temporary, localised and slight.

Operational effects include modest additional vehicular movements (291 AM / 311 PM PCUs), which modelling confirms can be fully accommodated within the capacity of all assessed junctions. Two existing Gorey junctions operate close to capacity but remain within acceptable limits with the development in place. The development generates positive active travel effects through new pedestrian and cycle connections.

6.5 Mitigation

Embedded DMURS-compliant design measures significantly reduce potential impacts, including:

- A new ghost-island priority junction on the R725 with dedicated right-turn lane;
- Two improved accesses onto Kilnahue Lane with local widening to 5.5 m;
- A 4.0 m shared pedestrian/cycle route and extended R725 footpath;
- A raised zebra crossing providing safe school access;
- Low-speed internal street design, EV charging and secure cycle parking.

Construction impacts will be managed through a detailed Construction Traffic Management Plan (CTMP), including HGV scheduling outside school peaks, banksmen at access points, temporary pedestrian/cycle protection, road-cleaning measures, and worker mobility management.

6.6 Residual & Cumulative Effects

Following mitigation, construction impacts reduce to imperceptible or slight, short-term effects. Operationally, all junctions operate within capacity for both the opening year (2028) and design year (2043). Sustainable travel infrastructure produces moderate positive long-term effects for pedestrians and cyclists. Cumulative residual effects remain not significant.

6.7 Conclusion

The assessment confirms that the proposed development will have no significant adverse effects on traffic, transport or road safety. The local road network can comfortably accommodate the forecast development traffic, and the scheme delivers meaningful improvements to active travel connectivity and overall mobility. No traffic or transport considerations arise that would prevent the granting of planning permission

CHAPTER 7 | Material Assets: Built Services

7.1 Introduction

The full assessment of Material Assets: Built Services is contained within Chapter 7 of the EIAR. This NTS provides a summary of the issues and impacts relating to the material assets of surface water drainage, foul water drainage, water supply and utilities in respect of the subject lands.

7.2 Surface Water Drainage

There is no existing surface water infrastructure is present within the site with the exception of a small drainage ditch which runs along the north side of Carnew Rd to the south of the site. The steep topography of the existing site and poor infiltration mean that most site runoff currently flows overland across the subject site and adjacent private lands to this existing ditch.

The proposed storm sewer collection system consists of a 100 mm diameter pipe collection network around each house in accordance with TGD part H discharging to 225mm diameter uPVC sewer pipes or larger under the roads in accordance with the requirements of the Greater Dublin Strategic Drainage Study (GDSDS), CIRIA SuDS Guide and the requirements of the Wexford County Council Taking in Charge Policy. A 20% climate change factor and a 10% urban creep factor will be applied to the design of the surface water network. The surface water network layout, typical details and relevant drawings are shown in the following drawings:

- Proposed Storm and Foul Drainage – General layout (300001)
- Proposed Storm and Foul Drainage – Sheet 1 of 5 (300002)
- Proposed Storm and Foul Drainage – Sheet 2 of 5 (300003)
- Proposed Storm and Foul Drainage – Sheet 3 of 5 (300004)
- Proposed Storm and Foul Drainage – Sheet 4 of 5 (300005)
- Proposed Storm and Foul Drainage – Sheet 5 of 5 (300006)
- Catchment Areas Pre Development (300201)
- Catchment Areas Post Development (300202)
- Exceedance Flood Route (300202)
- Drainage and Site Details – Sheet 1 of 4 (400001)
- Drainage and Site Details – Sheet 1 of 4 (400002)
- Drainage and Site Details – Sheet 1 of 4 (400003)
- Drainage and Site Details – Sheet 1 of 4 (400004)

Surface water from the proposed development will be managed through a SuDS-led drainage strategy designed to control runoff, provide attenuation and improve water quality before discharging into the public network. The existing site currently drains overland towards a roadside ditch on Carnew Road; however, the proposed network has been designed to divert runoff away from this ditch, reducing the catchment that contributes to it improving the capacity for the same.

Runoff from roofs, roads and paved areas will be collected and directed to a series of attenuation features, where discharge rates will be limited using hydrobrake flow controls so that outflows do not exceed the calculated greenfield runoff rate. Treatment of runoff will be achieved through SuDS components such as permeable paving, swales, a detention basin and oil/petrol interceptors, ensuring sediments and hydrocarbons are removed before the water enters the public network.

An overflow path has also been incorporated into the design so that, during exceedance rainfall events, any excess surface water will naturally route towards designated public open spaces, avoiding uncontrolled flows and minimising flood risk within the built areas of the scheme.

Possible negative effects, such as localised flooding or polluted runoff entering the drainage network, have been addressed through the layout and design of the system. Attenuation storage, controlled discharge, and SuDS treatment features ensure that runoff is both limited and cleaned before release, providing a robust and environmentally responsible surface water solution for the development.

7.3 Wastewater Drainage

The layout of the proposed wastewater drainage network for the development, along with the typical construction details, is shown on the following drawings:

- Proposed Storm and Foul Drainage – General Layout (300001)
- Proposed Storm and Foul Drainage – Sheet 1 of 5 (300002)
- Proposed Storm and Foul Drainage – Sheet 2 of 5 (300003)
- Proposed Storm and Foul Drainage – Sheet 3 of 5 (300004)
- Proposed Storm and Foul Drainage – Sheet 4 of 5 (300005)
- Proposed Storm and Foul Drainage – Sheet 5 of 5 (300006)
- Proposed Offsite Foul Layout – Sheet 1 of 4 (300101)
- Proposed Offsite Foul Layout – Sheet 2 of 4 (300102)
- Proposed Offsite Foul Layout – Sheet 3 of 4 (300103)
- Proposed Offsite Foul Layout – Sheet 4 of 4 (300104)

The proposed foul network is a conventional gravity piped system constructed within the internal road and an upgraded offsite pipe. All foul drainage flows eastwards towards Carnew Road, where it will ultimately connect to the existing public wastewater network serving Gorey. A study of Uisce Éireann (UÉ) records indicates that the existing system consists of a 150 mm gravity sewer on Carnew Road, increasing to 225 mm further east and discharging towards the Gorey Wastewater Treatment Plant.

A Pre-Connection Enquiry was submitted to Uisce Éireann, and a Confirmation of Feasibility was issued. UÉ confirmed that the development can be accommodated subject to upgrades to the existing public foul network, including:

- Extension of the network by approximately 120 m from Carnew Road
- Upsizing of approximately 2.2 km of existing public sewers to increase available capacity

These upgrades, which UÉ has confirmed are feasible, are to be delivered by Uisce Éireann and will ensure sufficient downstream capacity for the development.

Construction of the foul network will involve standard trench excavations and will be carried out in accordance with the Uisce Éireann Codes of Practice. Confirmation of Feasibility and Statement of Design Acceptance are included in Appendix C of the Infrastructure Report.

All pipes, manholes and fittings will be subject to inspection, pressure testing and CCTV surveys as part of the quality assurance process before connection to the public network. All wastewater designs will be fully vetted by Uisce Éireann prior to receiving an offer to connect to their existing network.

During construction, traffic disruption will occur where the off-site upgrades and network extensions interface with the public road network. These impacts will be managed through a Construction Traffic Management Plan, which outlines the required traffic controls and temporary diversions. No long-term operational impacts on the public wastewater network are anticipated once UÉ completes the required network upgrades.

7.4 Watermain

It is proposed to provide water supply to the development through three separate connections to the existing public network. Two of these connections will be taken from a new 200 mm diameter watermain to be constructed along Kilnahue Lane, and a third connection will be made at the southern site entrance on Carnew Road. Uisce Éireann has issued a Confirmation of Feasibility, confirming that connection is achievable subject to upgrades to the existing network, including:

- Approximately 150 m of watermain extension along Kilnahue Lane
- Approximately 860 m of upgrades to the existing water network to increase capacity

Once these works are completed, the existing network will have sufficient capacity to service the development.

A 200 mm diameter spine watermain will be installed through the site in accordance with Uisce Éireann's Code of Practice, with 150 mm and 100 mm PE watermains branching from it to supply individual housing clusters and cul-de-sacs. The layout and details of the proposed watermain network are shown on the following drawings:

- Proposed Watermain – General Layout (300007)
- Proposed Watermain – Sheet 1 of 6 (300008)
- Proposed Watermain – Sheet 2 of 6 (300009)
- Proposed Watermain – Sheet 3 of 6 (300010)
- Proposed Watermain – Sheet 4 of 6 (300011)
- Proposed Watermain – Sheet 5 of 6 (300012)
- Proposed Watermain – Sheet 6 of 6 (300013)

Bulk metering will be provided at each site connection in accordance with Uisce Éireann requirements.

Confirmation of Feasibility and Statement of Design Acceptance are included in Appendix C of the Infrastructure Report.

Some temporary disruption to the existing public water supply may occur during the connection works. Any required shutdowns will be arranged in consultation with Uisce Éireann, and affected residents will be notified in advance. These works will be short-term in duration, and no long-term impacts on the wider water network are anticipated once the UÉ-required upgrades are completed.

7.5 Electricity Supply

There are existing ESB powerlines within and adjacent to the site, including MV (10 kV / 20 kV) and LV (400 V / 230 V) overhead lines. As part of the proposed development, these existing overhead powerlines will be diverted and undergrounded in full accordance with ESB Networks requirements.

A new underground power supply will be provided to serve the development, routing through the internal road network to new ESB substation(s). The proposed substation(s) will supply power to a series of distribution pillars which in turn will service all residential units within the scheme.

Where overhead lines currently cross the site, these will be diverted underground from their entry point at the site boundary until they reconnect with the existing ESB network outside the site. This will remove overhead constraints and facilitate safe development of the lands.

When the new ducting and cabling are installed and ready for commissioning, a short, planned outage will be required to allow ESB Networks to switch over from the existing overhead supply to the new underground network. This outage will be arranged in advance with ESB and communicated to affected residents and businesses. The impact will be brief and imperceptible, and no long-term disruption to the electricity network is anticipated.

7.6 Telecoms

Telecommunications ducting and associated infrastructure will be installed throughout the development during the construction phase. This internal ducting network is designed to accommodate connection to the SIRO fibre network, which has been identified as the service provider for the area.

Prior to the operational phase, the completed internal telecoms network will be connected to the existing local telecommunications infrastructure, with final confirmation of service provision to be issued by the provider following submission of the formal application post-planning.

Any potential impact on existing telecommunications services during construction is expected to be brief, neutral and imperceptible, as all existing telecoms infrastructure in the vicinity of the site is located within underground ducts along Carnew Road and Kilnahue Lane. Should any temporary diversions be required at the site perimeter, they will be carried out in consultation with the relevant service provider. No long-term impacts are anticipated.

7.7 Gas

No gas connection is proposed for the development, and there is no existing gas infrastructure in the vicinity of the site. As no works are required to facilitate gas supply, no impacts are envisaged on the local gas network during either the construction or operational phases.

CHAPTER 8 | Material Assets: Waste

8.1 INTRODUCTION

The assessment of Material Assets – Waste is contained within Chapter 8. The waste management assessment has focussed on:

- Resource & Waste Management Plan
- Operational Waste Management Plan

The receiving environment is largely defined by Wexford County Council (WCC) as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations. Regarding the baseline environment, there is currently no waste generated at the proposed development site.

8.1.1 Potential Impacts of the Proposed Development

Construction Phase

During the construction phase the mismanagement of waste , including the inadequate storage of waste, inadequate handling of hazardous waste, the use of inappropriate or insufficient segregation techniques, and the use of non-permitted waste contractors, would likely lead to negative impacts such as waste unnecessarily being diverted to landfill, litter pollution which may lead to vermin, runoff pollution from waste, fly tipping and illegal dumping of waste. In the absence of mitigation, the effect on the local and regional environment is likely to be long-term, significant and negative.

Operational Phase

The potential impacts on the environment during the operational phase of the proposed development would be caused by improper, or lack of waste management. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant** and **negative.**

8.1.2 Mitigation and Residual Effects (Post-Mitigation)

Construction Phase

During the construction phase, typical construction waste materials will be generated which will be source segregated on-site into appropriate skips/containers, within designated waste storage areas and removed from site by suitably permitted waste contractors as required, to authorised waste facilities, by appropriately licensed waste contractors. While the accurate keeping of waste records will be undertaken. All waste leaving the site will be recorded and copies of relevant documentation maintained.

This will all be overseen by the main contractor, who will appoint a construction phase Resource Manager to ensure effective management of waste during the excavation and construction works. All construction staff will be provided with training regarding the waste management procedures on site.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (Appendix 8.1) and Chapter 8 during the construction phase, this will ensure that the effect on the environment will be **short-term, neutral** and **imperceptible.**

Operational Phase

During the operational phase, waste will be generated by the residents. Dedicated Waste Storage Areas (WSAs) have been allocated throughout the development for the use of the residents and the creche unit. The WSAs have been appropriately sized to accommodate the estimated waste arisings from the development. The WSAs have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection areas by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared by AWN and is included as Appendix 8.2. The proposed development will give rise to a wide variety of waste streams during the operational phase, i.e. when the project is completed, open and occupied. Operational waste will be generated on a daily basis by the operator including cardboard, plastic, paper, glass, dry mixed recyclables, mixed non-recyclables, cooking oil, lightbulbs, batteries, WEEE waste, and organic waste.

All recyclable materials will be segregated at source where possible to reduce waste contractor costs and ensure maximum diversion of materials from landfill in line with the development OWMP. This strategy will be supplemented, as required, by the operator as required with any new information on waste segregation, storage, reuse and recycling initiatives that are subsequently introduced.

Provided the mitigation measures in the development OWMP (Appendix 8.2) and in Chapter 8 are implemented, and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, neutral** and **imperceptible.**

8.1.3 Cumulative Impact of the Proposed Development

Construction Phase

In a worst-case scenario, multiple developments in the area could be developed concurrently or overlap in the construction phase. Due to the high number of waste contractors in the WCC region, as provided from the National Waste Collection Permit Office and the EPA, there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all of the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate against any potential cumulative effects associated with waste generation and waste management. As such the cumulative effect will be **short-term, imperceptible** and **neutral.**

Operational Phase

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current and potential developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate any potential cumulative impacts associated with waste generation and waste management. As such the cumulative effect will be a **long-term, imperceptible** and **neutral.**

CHAPTER 9 | Land & Soils

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 Kilnahue Gorey site and assess the likely impacts of the proposed large scale 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 scope of work to be completed for the EIAR assessment involved a Desk Study & Walkover Survey of the locality, the review of any available site investigation information and reporting.

9.1 Existing Environment

The land at Kilnahue is composed of a sloping site comprising agricultural tillage and grassland in a rural-urban setting on the eastern outskirts of Gorey Town.

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

- Topsoil is described as “Shallow Well Drained Mineral Till, (mainly acidic), derived from Palaeozoic shale material”, (AminSW), from the soil group of “Acid Brown Earths, Brown Podzolics”.
- Subsoil is described as glacial “Till derived from Lower Palaeozoic rock”, (TLPS),
- The Teagasc Soil Mapping identifies the Soil Association as “Clonroache” which is very common in the Gorey area and throughout Wexford country.
- The GSI Vulnerability Mapping, which is based on estimated subsoil depths, identifies Rose close to Extreme to Vulnerability (0 to 3m) in the majority of the site area with some areas of deeper soils giving High Vulnerability (~5m) along the southern fringes.
- Site specific investigations comprising of eight trial pits and probes were completed across the site area which identified typical soil-subsoil depths of between 0.2m to 2.4m, with weathered bedrock ripping out as very gravelly subsoil to the end of the excavations at 1.8 to 3m.
- Subsoils consisted of brown orange to beige very gravelly sandy clayey silt and/or gravelly sandy silt over shaley bedrock. No water or water ingress was identified during the Site Investigations.
- The bedrock under the majority of the site area is identified by the GSI as the Ordovician aged Oakland Formation, (OA), consisting of metasediments of green, red or purple buff and occasionally grey slates interbedded with siltstones.” The eastern edge of the site is underlain by the Campile Formation (CA)



Image 9.1 Gorey area Subsoil Map, with Rock Close (yellow) & Shallow Mineral Soils, (grey).

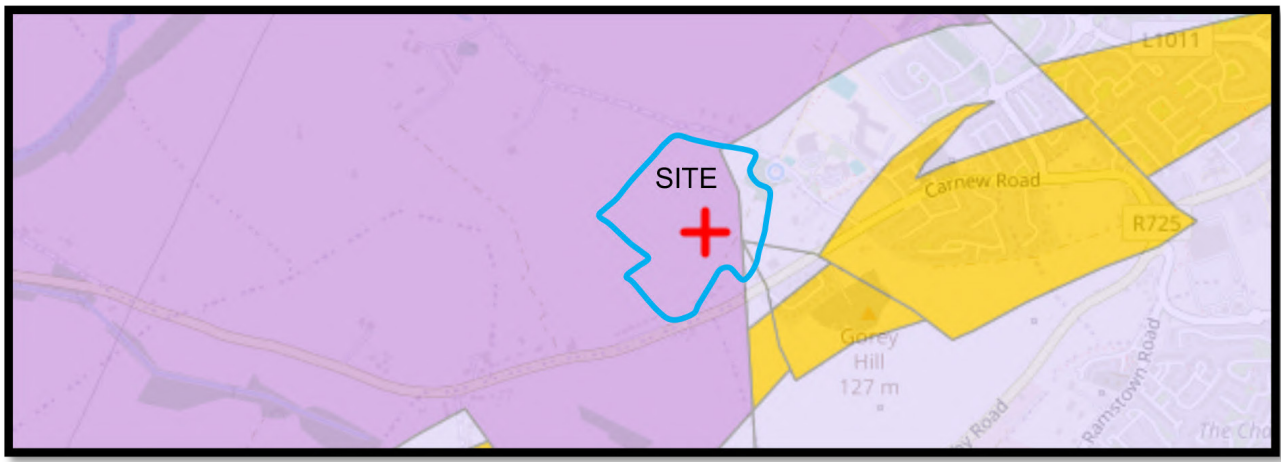

Image 9.2 Bedrock Geology Map with the Oakland metasediments (purple) under the site area.

The current land use, soil types and existing geology are very common in the Wexford area and there is no intrinsic areas of scientific value or geological heritage identified on or in the vicinity of the site. The land/soil/geology attributes are rated as having a Medium Site Importance.

9.2 Predicted Effects

The main effects that are anticipated and are considered to require assessment are the potential for land contamination and/or slope stability issues to arise, the extent and volumes of 'cut and fill' of subsoils and/or bedrock required for the development phase and the potential for environmental effects on the soils and bedrock for the construction and operational phases.

Based on the site topography and the site investigation (SI) data from the trial pit investigation initial calculations on the volume of Cut and Fill have been made for the development. Allowing for a general site strip and material cut of 119,497m3, the calculations indicate that, after a 95,983m3 re-use in backfilling and landscaping, there will be an excess of 23,514m3 of subsoil and/or rock from the development area. It is anticipated that all topsoil material will be re-used on the site.

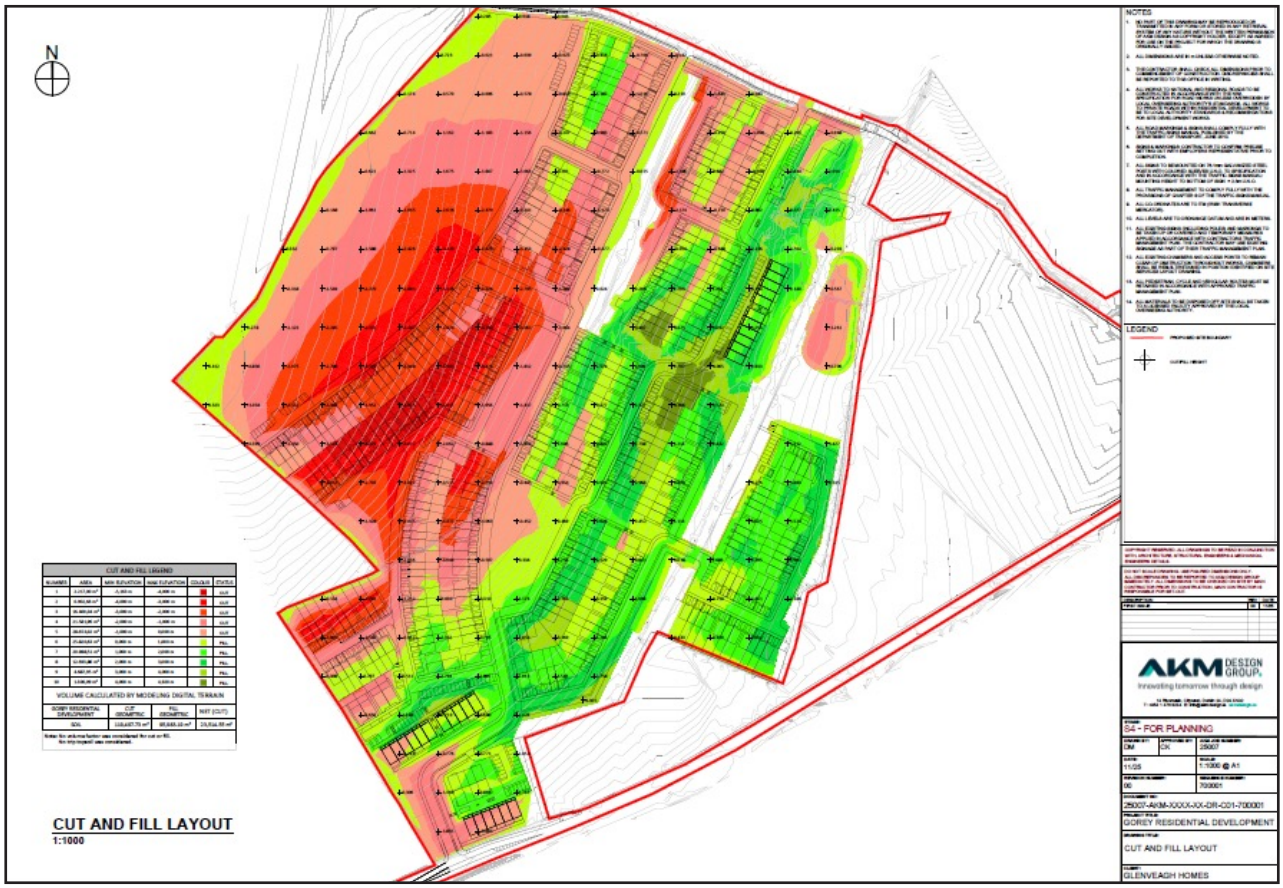

Image 9.3 AKM Design Engineers Cut & Fill Layout Dwg. Reds are Cut & Greens are Fill areas.

In areas where cut and fill is needed the AKM modelling indicates that the vast majority of the site area will only require relatively minor, (+3m to -3m), cut and fill activities. Given the sloped nature of the natural topography and requirement to create level areas for roads and housing development across the slope, some small areas of deeper cut are required towards the western side of the site.

It is expected that the majority of the total rock volume will be excavated using normal tracked excavators while some of the deeper excavation areas may require heavier excavators or rock hammers to break out the bedrock prior to its removal. As much of the excavated subsoil and shaley rock material will be used on-site as backfill but quarry aggregates will be needed under roads and buildings as well as used under the storm and foul drainage infrastructure.

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 drainage channels, use 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 re-seeded to limit and prevent sediment runoff.

Any deep excavation areas will be supported with long term retaining structures such as wall or gabions. Water and waste water piping will be installed to the required industry standards and also integrity tested to insure no leaks are occurring after construction.

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 and a site specific Environmental Construction Management Plan, (CEMP) will also be in place for the site.

For the operational phase some monitoring and maintenance of the retaining wall structures is recommended site to ensure no failures of these ground supports occurs.

9.4 Impact Assessment

The overlying soil, sub-soil and Ordovicion metasediments and volcanic shaley bedrock deposits are classified as being of Medium Importance, as although they are very common geological sequences present across wide areas of the county, the Soil Attribute is well drained and fertile and has local scale importance for agricultural use.

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 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 slope 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 | Water

This is the non-technical summary of the Water Environmental Impact Assessment Reporting works of the proposed large scale residential development site at Kilnahue near Gorey, Co. Wexford.

Background information on the nature of the Water elements, (hydrology and hydrogeology), their characteristics and status was obtained from a wide variety of available documents and online references. Consultation was undertaken with the relevant authorities. A site walkover was completed.

10.1 Existing Environment

There are no streams, drainage ditches, springs or other water features on the proposed site. There is reference to an old Holy Well, Toberchreest on lands just to the south of the eastern corner of the site.

The site is located with the Water Framework Directive (WFD) Catchment Hydrometric Area 11. The hydrometric area is divided into a number of sub-catchments and the site is located at the northern end of the Owenavorragh_SC_010 sub-catchment.

The Owenavorragh Sub Catchment area is further divided into eleven WFD River Sub Basins and the site is located on the south western edge of the Banoge River Catchment area. The Banoge River is divided into three WFD River Sub Basins and the majority of the site is shown to be located in the upper river sub basin Banoge_010, that occupies a catchment area of about 13.162km2.

The nearest watercourse is the Ballyowen Stream located about 550m to the east of the site. This stream (EPA Code 11BBB) is tributary of the Banoge River which it joins with on the east side of Gorey Town.

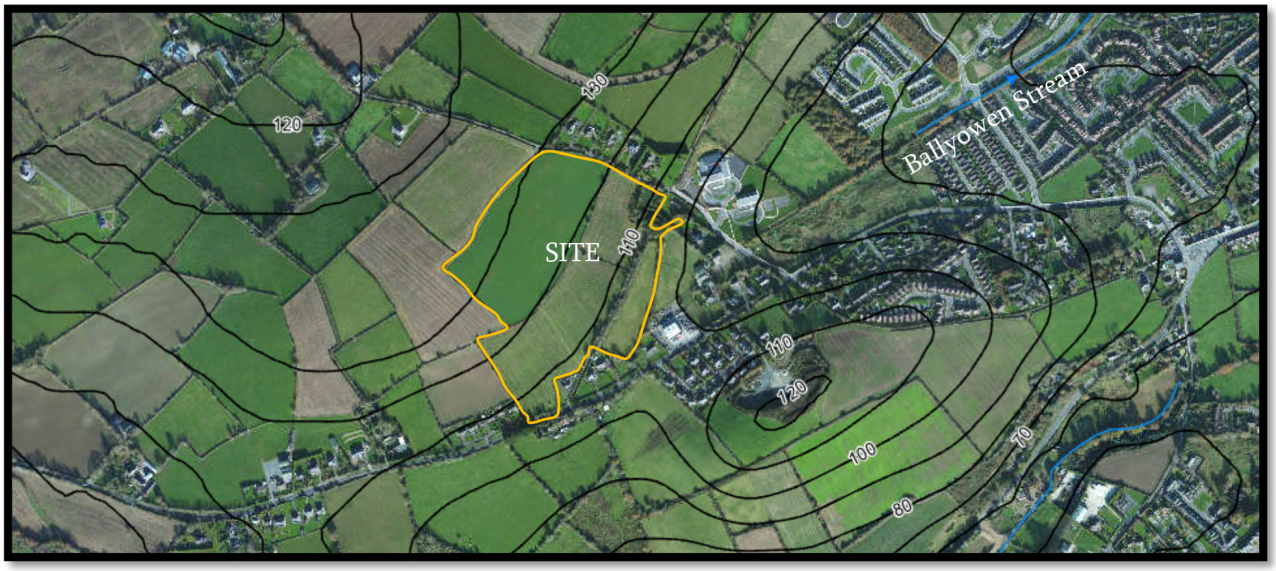

Image 10.1 Kilnahue study area (orange line) is a green field site, east of Gorey Town, with no drainage features.

The catchment area is predominately underlain by Ordovician aged metasediment shale bedrock of the Oaklands Formation (OA) overlain by thin to shallow well drained acid brown earth tills. The OA bedrock is classified by the GSI as a Locally Important (LI), aquifer which is productive only in local zones.



Image 10.2: EPA GSI Bedrock Aquifer Potential Map.

Eight shallow trial pits have been completed in the site are to depths of 1.8 to 3m and no shallow seeps or evidence of water ingress were identified during these works.

No public supply wells or other potable water 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.

The development will source its water through the Uisce Eireann public supply and the stormwater discharges from the site will be directed to a number of Sustaiunable Urban Drainag Systems (SuDs) including permeable paving, swales, land drains, detention basins and attenuation systems. All foul water will be directed to the Uisce Eireann sewage system and existing waste water treatment facilities.

The site is not a risk of Flood Risk and with the proposed water management systems in place the development will not increase the Flood Risk to other sites in the downstream catchment area.

The Banoge River system has no environmental designations in terms of habitats, salmonoid fisheries, or as special areas of conservation and would be considered to have a site important rating of Medium.

Similarly the underlying Aquifer would be considered to have a site importance rating of Medium.

The WFD EPA Assessment Data (2019 to 2024) indicates that the Bangoe River_010 Quality Status is rated as 'Moderate' and is considered to be 'At Risk' due to agricultural and urban pressures. The underlying 'Inch' groundwater body is rated as 'Poor' but not considered to be '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 sediment runoff in storm waters from the active construction, cut and fill areas in wet weather to adjacent drainage systems, 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 surface runoff from the developments road network due to the sloped site.

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 re-seeded to limit and prevent sediment runoff.

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 development of a site specific Environmental Construction Management Plan, (CEMP).

SuDS drainage systems will be integrated around the development and side discharges will be via an attenuation/ detention pond system that, as well as providing improved habitat and biodiversity opportunities, will be designed to discharge storm water at the green field rate for the site area.

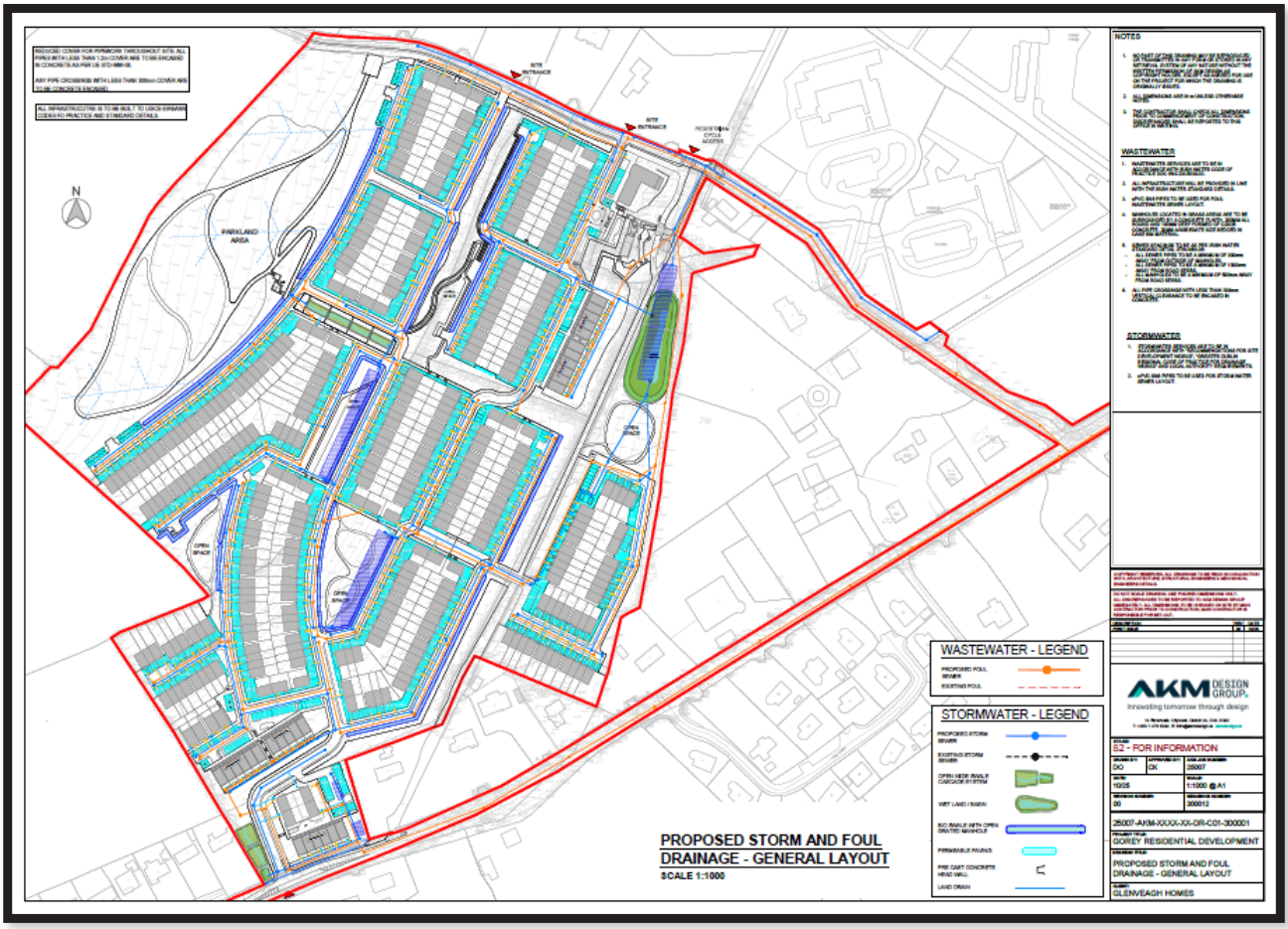

Image 10.3: Proposed Storm and Foul Drainage Layout from AKM the project design engineers.

Proper instillation and testing of installed wastewater piping system will reduce the risks of leaks occurring to the underlying bedrock during the sites operation.

10.4 Impact Assessment

The surface waters of the Banoge River system are classified as Moderately Important. 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 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 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

11.1.1 Introduction

The assessment of Biodiversity is contained within Chapter 11 of Volume II. The chapter assesses the potential significant effects of the proposed development on the ecology of the surrounding area and within the potential zone of influence (ZOI).

11.1.2 Existing Environment

The site consists primarily of agricultural grassland, hedgerows and scrub. The proposed development is located 1.2 kilometres from the nearest Natura 2000 site (Slane River Valley SAC). There is no direct or indirect pathway to this SAC. Surface water drainage from the proposed development will discharge to a proposed surface water network on Kilnahue Lane prior to outfalling to the nearby Ballyowen Stream located approximately 140m north-east of the main development site area. This stream discharges to the Banoge River, a tributary of the Owenavorragh River, prior to its outfall to the marine environment at Owenavorragh Estuary. There is, therefore, a weak indirect hydrological pathway to Courtown Dunes and Glen proposed Natural Heritage Area (pNHA) and European sites located within the marine environment along the Wexford Coast (namely, Cahore Polders and Dunes SAC, Kilpatrick Sandhills SAC & Cahore Marshes SPA) via surface water drainage. However, given the minimum distance (4.1 km) to these designated sites and the flocculation and estuarine circulation patterns that occur within Owenavorragh Estuary, any pollutants, silt laden run off or dust that may enter the surface water network will be dispersed or diluted to negligible levels prior to reaching any designated conservation sites.

Measures are outlined to comply with Water Pollution Acts. These are standard construction measures and are not deemed necessary for the protection of Natura 2000 sites. In the absence of these measures silt would settle within the Ballyowen Stream, River Banogue, and Owenavorragh watercourse network and, in the event of a pollution incident, dilution, flocculation and mixing would occur within the river catchment and estuarine element of the Owenavorragh River prior to reaching any Natura 2000 sites.

11.1.3 Do Nothing Scenario

Due to the zoning of the subject site, it would be expected that in the absence of this subject proposal a development of similar scale and nature would be progressed. Under this scenario, in the absence of specific development details, it is likely that the effect would be similar to this proposal as outlined below. However, in the absence of any development on the site it would be expected that the hedgerow, scrub and treeline habitats would continue to be utilised by local bird, mammal and bat populations.

11.1.4 Impacts

11.1.4.1 Construction Phase

In the absence of mitigation, the overall development of the site is likely to have direct negative impacts upon the existing habitats, fauna and flora. Direct negative effects will be manifested in terms of the removal of the site's internal habitats. The removal of these habitats will result in a loss of species of low biodiversity importance. However, the scrub and hedgerows do provide a substantial nesting foraging resource for birds and foraging area for bats. These construction effects however would include effects that may arise during the site clearance, re-profiling of the site and the building phases of the Proposed Development.

The nearest designated conservation site is the Slaney River Valley SAC (1.2km). There is no hydrological or biodiversity connection to this SAC. . Out of an abundance of caution, there is a weak indirect hydrological pathway to the Courtown Dues and Glen pNHA (4.1 km), Kilpatrick Sandhills SAC (10.2km), Cahore Polders and Dunes SAC (14.7km), and Cahore Marshes SPA (14.0km) via the proposed surface water drainage. In the absence of mitigation measures, no likely significant effects on downstream conservation sites are foreseen via surface water drainage during construction. The proposed development will result in the removal of a confirmed bat roost. A derogation license and mitigation measures are required prior to the commencement of works. No terrestrial mammals of conservation concern, such as badger (Meles meles) and otter (Lutra lutra), were noted on site. Overall, the potential impacts in the absence of mitigation are seen to be mostly low adverse / site / Negative Impact / Not significant / short term.

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11.1.4.2 Operational Phase

Once constructed, the site would be seen as a stable ecological environment. Surface water from the site will ultimately discharge to the Ballyowen Stream, with potential for silt, pollutants, and petrochemical contaminants to impact aquatic ecology; however, these impacts are assessed as minor adverse, local, long-term, and not significant with standard mitigation in place. The proposed development will result in the loss of a bat roost and in addition, the removal of vegetation, along with artificial lighting, may impact on bat foraging and commuting activity. As a result, sensitive lighting strategy, including 3000K LED luminaires with full cut-off optics and avoidance of light spill into adjacent habitats, extensive treeline planting and installation of bat boxes will be implemented to minimise impacts. The development may also result in increased disturbance to birds and protected terrestrial mammals such as badgers and otters, though impacts are considered not significant with appropriate mitigation. Landscaping and compensatory habitat creation are expected to mitigate impacts over time.

11.1.4.3 Cumulative Impact

An assessment of cumulative impacts with other nearby developments has been carried out. It is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on European sites will be seen as a result of the proposed development alone or combination with other projects.

11.1.5 Mitigation

11.1.5.1 Incorporated Design

- Retention of 1270 linear metres of native hedgerows within and along the site boundary.
- Approximately 1734 trees, including species such as oak, ash, and beech, will be planted across the site. These will be arranged in structured treelines, with additional woodland planting areas integrated into the overall landscape design strategy. This planting scheme is intended to support and enhance biodiversity on site.

11.1.5.2 Construction Phase

During the construction phase, a series of biodiversity protection measures will be implemented alongside those outlined elsewhere in the EIAR. A pre-construction survey for bats and terrestrial mammals will be carried out. An Ecological Clerk of Works (ECoW) will oversee compliance with Wildlife Acts and Water Pollution Acts legislation. Tree, hedgerow and scrub removal will adhere to legal protections for nesting birds and roosting bats, with specific seasonal restrictions. Lighting during construction will be carefully managed to avoid disturbing sensitive species and habitats, with particular attention to bats. A derogation licence will be required from NPWS for the removal of a bat roost on site.

11.1.5.3 Operational Phase

The biodiversity value of the site is expected to improve as landscaping matures, supported by a sustainable drainage and detailed landscape strategy, with operational mitigation measures including inspection of drainage connections and installation of 20 bird boxes. Bat conservation measures will be implemented, such as sensitive lighting design to reduce ecological impact and installation of bat boxes on mature trees. The landscape design prioritises native planting and night-scented species such as honeysuckle to support bat foraging, alongside compensatory woodland planting and new treelines. A large, dark open parkland area is also included to strengthen habitat connectivity and bat foraging habitats on site.

11.1.6 Residual Impact Assessment

11.1.5.1 Construction Phase

Based on the successful implementation of the construction phase controls and the works to be carried out in accordance with this EIAR, it is likely that there will be no significant ecological impact arising from construction works proposed for the proposed project. Designated conservation sites will not be impacted by the proposed development during construction.

A robust series of standard construction phase control measures, in addition to design measures, have been outlined to ensure that the proposed project does not impact on species / habitats of conservation importance or watercourses during construction. It is essential that these measures are complied with to ensure that the proposed works do not have downstream environmental impacts. These measures are to protect the Ballyowen Stream, River Banogue and Owenavorragh River, which are potentially the primary vector of impacts from the site.

No significant environmental impacts are likely in relation to the construction of the proposed development. Effects: Negative effect / Site / Not significant / Short term / Likely. Standard mitigation will be in place on site.

11.1.5.2 Operational Phase

Based on the successful implementation of the operational phase controls and the works to be carried out in accordance with this EIAR, it is likely that there will be no significant ecological impact arising from operation of the proposed project. Designated conservation sites will not be impacted by the proposed development.

Standard operational phase control measures have been outlined to ensure that the proposed project does not impact on species / habitats of conservation importance or watercourses. It is essential that these measures are complied with, to ensure that the proposed works do not have downstream environmental impacts. These measures are to protect the Ballyowen Stream, Banogue River and Owenvorragh River, which are potentially the primary vector of impacts from the site, is not impacted during operational phases of the proposed development.

No significant environmental impacts are likely in relation to the operation of the proposed development.

11.1.7 Monitoring

As outlined in Chapter 11, during the construction phase, a project ecologist will be appointed to oversee construction works on site. Pre-construction surveys will be carried out for terrestrial mammals and bats. In the operational phase, a project ecologist will be appointed to inspect drainage networks onsite and ensure compliance with a sensitive lighting strategy.

CHAPTER 12 | Noise & Vibration

12.1.1 Introduction

The assessment of Noise & Vibration is contained within Chapter 12. The chapter provides information on the assessment of noise and vibration impacts on the surrounding environment during the construction and operational phases of the project. The proposed development consists of a Large Scale Residential Development (LRD) at Kilnahue & Gorey Hill, Carnew Road & Kilnahue Lane, Gorey, Co. Wexford.

12.1.2 Existing Environment

The existing and future noise and vibration environments across the development site and in the vicinity of the nearest existing noise sensitive locations (NSLs) are dictated by transportation sources from the surrounding road network.

12.1.3 Impact Assessment

12.1.3.1 Do Nothing Scenario

The Do Nothing scenario includes retention of the current site without the proposed or cumulative development in place. In this scenario, noise levels at the site 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).

12.1.3.2 Construction Phase

The construction phase will involve rock excavation, site clearance, bulk excavation, building construction works and landscaping. The assessment has determined that whilst there will be increased construction related noise at the closest noise sensitive locations to the proposed development, the majority of works can be controlled to within the adopted construction noise thresholds. The exceptions to this statement are during high noise level activities such as site clearance, bulk excavation and loading lorries when works are within 10 to 35 m of the closest noise sensitive locations in the absence of noise mitigation measures.

There are noise-sensitive residential properties located within approximately 10 m, 20 m, and 30–35 m of the site boundary, meaning the predicted impacts at these distances apply to actual occupied dwellings.

Based on the predicted construction noise levels:

- At approximately 10 m from the works, **negative, short-term and significant to very significant** noise impacts may occur.
- At approximately 20 m, **negative, short-term and moderate to significant short-term** impacts may arise.
- At approximately 35 m, negative and short-term impacts reduce to slight to moderate.
- At 70–80 m, noise levels are predicted to remain within recommended BS 5228 guidelines, resulting in **not significant, short-term effects.**

All construction noise effects will be short-term, will vary as works move across the site, and will be managed through standard construction noise controls and good practice.

There are no construction vibration sources that will give rise to any significant vibration impacts.

12.1.3.3 Operational Phase

Once operational there are no noise sources associated with the proposed development that will give rise to any significant noise impacts. Operational activities are those which form part of the existing surrounding environment at neighbouring residential areas (estate vehicle movements, children playing etc.) and hence no significant impact is expected from this area of the development site.

Additional Traffic on Public Roads

During the operational phase, the predicted change in noise levels associated with additional traffic in the surrounding area is **imperceptible to not significant and long-term.**

Building Services Plant

Once the relevant noise criteria are not exceeded within the Proposed Development, the related noise impact to existing noise sensitive locations offsite will be **negative, not significant and long-term.**

Creche Playground

Considering the distance and screening from existing boundary treatments, activities from the crèche will be well below the range of baseline noise levels recorded to the west of the site. The resultant noise impact is therefore **neutral, not significant and long-term.**

12.1.3.4 Cumulative Impact

Cumulative Construction Noise Assessment

At the time of assessment, detailed information regarding the phasing schedule and potential overlap between construction phases was not available. For the purposes of this assessment, it has been assumed that construction activities will occur sequentially, with only one major phase active at any given time.

Should limited overlap between adjacent phases occur, the separation distances between working areas and the majority of NSLs are such that cumulative noise effects are not expected to result in any material increase in predicted noise levels.

Accordingly, there will be no additional significant cumulative construction noise impacts.

Cumulative Construction Vibration

Any construction activities undertaken on the site will be required to operate below the recommended vibration criteria set out in Chapter 12. There are no significant cumulative vibration effects on buildings. The predicted cumulative vibration impact during the construction phase is temporary, imperceptible and not-significant at the closest human receptors of the site boundaries.

12.1.4 Mitigation

12.1.4.1 Incorporated Design

The following mitigation measures are outlined for further review at the detailed design stage of the project:

The closest noise sensitive receptors to the operational building services and plant are within the development itself (i.e. they are much closer than off-site sensitive receptors). Therefore once the relevant internal noise criteria is achieved within the development at the detailed design stage, there are no additional mitigation requirements to control at off-site noise sensitive locations.

12.1.4.1 Construction Phases

During the demolition and construction phases of the Proposed Development, the use of best practice noise control measures, hours of operation, scheduling of works within appropriate time periods, strict construction noise limits will ensure impacts are controlled to within the adopted criteria. Similarly, vibration impacts during the construction phase will be well controlled through the use of low vibration generating equipment as standard for residential construction sites.

12.1.4.3 Operational Phase

During the operational phase of the development, noise mitigation measures with respect to the impact of traffic from the development are not deemed necessary.

12.1.5 Residual Impact Assessment

During the construction phase, the residual construction noise impact is negative, moderate to very significant and short-term at residential properties 30m of less from the site boundary. For other receptors located further from the works, residual impacts are expected to be negative, slight to moderate, and short-term. The human perception of vibration effects is temporary, imperceptible and not-significant.

During the operational phase, the predicted change in noise levels from additional traffic is negative, imperceptible to not significant, and long-term. Noise from building services is also predicted to be negative, not significant, and long-term. Noise from the crèche playground will remain below existing background levels at the nearest homes, resulting in a neutral, not significant, and long-term impact.

Overall, with standard noise controls in place and compliance with recommended noise limits, residual operational noise impacts are expected to be negative, not significant, and long-term.

12.1.6 Monitoring

As outlined in Chapter 12, during the construction phase, the appointed contractor will be required to carry out noise and vibration monitoring at site boundaries to the south and east of the site. These monitors will be set up where is the potential to exceed the construction noise thresholds i.e. when works are occurring within 10m of the site boundary and within 50m of vibration sensitive locations for human perception to noise, rather than cosmetic damage for buildings.

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.

13.1.1 Existing Environment

Baseline data and data available from similar environments indicates that levels of nitrogen dioxide (NO2), particulate matter less than 10 microns (PM10) and particulate matter less than 2.5 microns (PM2.5) and are generally well below the current National and European Union (EU) ambient air quality standards.

13.1.2 Impact Assessment

13.1.2.1 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.**

13.1.2.2 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: 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.

13.1.2.3 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 NO2, PM10 and PM2.5 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.

13.1.2.4 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.

The dust mitigation measures outlined in Section 13.7.1 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 and cumulative traffic emissions 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.

13.1.3 Mitigation

13.1.3.1 Construction Phase

Detailed dust mitigation measures are outlined within Section 13.7.1 of Chapter 13 to ensure that no significant impacts 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).

13.1.3.2 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**

13.1.4 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, negative and not significant.

13.1.5 Monitoring

Monitoring of the dust mitigation measures will be required as set out in Section 7.12.1 of Chapter 7 and the Construction Environmental Management Plan. The monitoring requirements will ensure that the dust mitigation measures are working satisfactorily.

CHAPTER 14 | Climate

AWN Consulting Limited has been commissioned to assess the likely impact on climate associated with the proposed residential development at Kilnahue & Gorey Hill, Gorey, Co. Wexford.

The climate assessment has incorporated the following assessments:

- The potential greenhouse gas emissions during the demolition, 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 57.6 Mt CO2e in 2024. This is 1.03 Mt CO2e higher than Ireland's annual target for emissions in 2024. EPA projections indicate that Ireland has used 82.5% of the 295 Mt CO2e Carbon Budget for the five-year period 2021-2025. This leaves 17.5% of the budget available for 2025, requiring a substantial 10.3% annual emissions reduction for 2025 to stay within budget.

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 2024 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 as a result of 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 Demolition & Construction Phases

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 small fraction of Ireland's 2030 carbon budget of 27.7 MtCO2e. The proposed development will incorporate a number of 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 road traffic were assessed. The changes in traffic volumes associated with the operational phase of the development were substantial enough the meet the assessment criteria requiring a detailed climate modelling assessment, as per Transport Infrastructure Ireland (TII) 2022 guidance "PE-ENV-01104: Climate Guidance for National Roads, Light Rail and Rural Cycleways (Offline & Greenways) – Overarching Technical Document". There will be a slight increase in the traffic on the local road network which will result in some minor increases in CO2e emissions. These have been assessed as a small fraction of Ireland's transport sector 2030 emissions ceiling.

GHG emissions associated with the in-use phase have been excluded from this assessment due to significant variability in user emissions.

Impacts to climate from the demolition, construction and operational phases are deemed **direct, long-term, negative** and **slight**, which is considered **not significant.**

14.2.3 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 (pluvial, fluvial); extreme heat; extreme cold; drought; extreme wind; lightning, 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 imperceptibl**e, which is overall **not significant** with regard to the construction and operational phases.

Overall, no significant impacts to climate are predicted during the construction and 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.

14.2.5 Mitigation

14.2.5.1 Incorporated Design

A number of mitigation measures have been incorporated into the design of the proposed development. The development will comply or exceed the requirements of Part L Building Regulations and will contribute to reducing the operational carbon footprint of the development, ensuring long-term energy efficiency and environmental sustainability. 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 increased rainfall, expanded SuDs to mitigate the effects of intense rainfall and provide larger permeable surface for drainage. The design is consistent with the 'Medium Risk' RCP4.5 scenario (2021-2050) and is considered resilient.

14.2.5.2 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. The project developer, Glenveagh Properties, has committed to achieving Net Zero by 2050 across its whole business. 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.

14.2.5.3 Operational Phase

During the operational phase the primary focus will be on operational energy usage and outlined through the incorporated design mitigation. Sustainable travel modes will be encouraged through support facilities for cycling, and infrastructure for electrical vehicle charging points.

14.2.6 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 IESP 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 incorporated 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.

14.2.7 Monitoring

Monitoring and reporting of the embodied carbon in the construction phase will be conducted. The aim of monitoring will be to seek further ways to minimise climate impacts.

CHAPTER 15 | Cultural Heritage

This section examines potential effects of the proposed development on archaeology, architectural and cultural heritage. The proposed development area is located within the townlands of Kilnahue and Bray Commons on the northeast of Gorey town. The proposed development boundary enters the Zone of Archaeological Potential associated with the historic town of Gorey (WX007-033-----and the zone of archaeological potential associated with a holy well (WX006-062----) named 'Toberchriost' on historic maps, extends within the greenfield portion of the development. There are an additional 11 recorded archaeological sites within the surrounding 1km study area. The closest recorded archaeological site is the holy well (WX006-062----) c. 20m to the north of the development boundary.

There are no structures listed within the Record of Protected Structures or National Inventory of Architectural Heritage within the development boundary. There are 37 Recorded Protected Structures and 50 National Inventory of Architectural Heritage (NIAH) sites within the study area, the majority of which are within Gorey town centre. Cultural heritage features within the proposed development lands includes a group of historic buildings and a historic laneway, both of which are proposed to be retained within in the development. One programme of geophysical survey (18R0031) followed by targeted archaeological testing (18E0522) have previously been undertaken within the greenfield development lands, identifying ten archaeological features/sites. These archaeological features remain in situ within the proposed development boundary and will require mitigation. A review of the Excavations Bulletin (1969–2024) has revealed five programmes of archaeological investigation have been carried out within the wider study area.

An inspection of the cartographic sources revealed that the main portion of the proposed development area have remained greenfield agricultural land until the present day with a small group of vernacular buildings noted within the northeast corner of the site on the first edition 6 inch OS map. A review of aerial photographs and Lidar coverage of the site did not identify any previously unrecorded archaeological or cultural heritage features within the proposed development lands.

A field inspection was carried out as part of the assessment. This did not identify any previously unknown archaeological, architectural or cultural heritage sites.

The proposed development will have a predicted permanent, direct, moderate to significant, negative effect on the potential archaeological sites uncovered during testing. Mitigation in the form of preservation by record (excavation) of these features is therefore proposed. Following the successful implementation of archaeological mitigation measures it is predicted that no impacts will arise in relation to the potential archaeological resource within the proposed development site during the operational phase. There is a predicted potential slight/moderate range of significance of effect in the context of residual impacts on the unrecorded archaeological resource.

No direct effects are predicted upon the architectural heritage resource as a result of the construction of the proposed development. No mitigation measures for this resource will be required.

CHAPTER 16 | Risk of Major Accidents and Disasters

16.1 Introduction

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

16.2 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),
- EIAR Directive 2014/52/EU, which requires consideration of "the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or natural disasters relevant to the project consented."
- 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)

16.3 Baseline Environment

16.3.1 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.

16.3.2 Flood Risk

The site-specific Flood Risk Assessment (FRA) completed by Waterman Moylan Consulting Engineers Ltd. concluded that the residual risk of flooding from Tidal, Fluvial, Pluvial and Groundwater is low. Therefore, the likelihood of a flood impacting the Proposed Development is unlikely and not significant.

16.3.3 Seismic Activity

There has been some small, historic, seismic activity recorded in the vicinity of the Proposed Development. The maximum magnitude of an earthquake in the vicinity of the Proposed Development was 1.9 and occurred in 1981. Earthquakes <2.5 in magnitude are not usually felt, but are recorded by seismographs.

It is concluded that the likelihood of seismic activity impacting the Proposed Development is unlikely and not significant.

16.3.4 Landslides

The Proposed Development and the surrounding area have a low susceptibility of landslides. Therefore, the likelihood of a landslide impacting the Proposed Development is unlikely and not significant.

16.4 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.

16.5 Predicted Impacts

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

16.5.1 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.

16.5.2 Construction Phase

General construction activities will include ground preparation, excavation, construction of structures. These activities will require the use of vehicles and tools. The hazards associated with activities include the potential for vehicle impact, particularly during reversing and vehicle overturning. The controls around this work will be managed by appropriate risk assessments to control the risks to people, the environment and also to the existing operational areas.

The following scenarios have been identified that could impact the construction phase of the project:

- Extreme heat or cold weather resulting in result structural damage and/or pollution to soils, groundwater, or surface waters.
- Compressed Gas Cylinder release
- Storm events resulting in structural damage and/or pollution to groundwater and surface waters.
- Flooding

The impact and likelihood of these scenarios have been assessed. It is concluded that there are no likely impacts to the Proposed Development or to off-site receptors during the construction phase in relation to major accidents and disasters.

16.5.3 Operational Phase

In the scoping phase for this EIAR the potential for impacts to human health and impacts to the environment were assessed.

The following scenarios have been identified that could impact the operational phase of the project:

- Extreme heat or cold weather resulting in result structural damage and/or pollution to soils, groundwater, or surface waters.
- Storm events resulting in structural damage and/or pollution to groundwater and surface waters.
- Flooding

The impact and likelihood of these scenarios have been assessed. It is concluded that there are no likely impacts to the Proposed Development or to off-site receptors during the operational phase in relation to major accidents and disasters.

16.5.4 Demolition

There will be no demolition as part of the proposed development.

16.5.5 Cumulative Effects

There are no expected impacts from developments in the vicinity of the Proposed Development, from a major accidents and disasters perspective, as such, there are no significant cumulative effects with the Proposed Development from a major accidents and disasters perspective.

16.6 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.

16.7 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 17 | Interactions

17. 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 18 | Summary of Mitigation Measures

Chapter 18 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.