

ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT

AT

SLI AN CHOISTE
MONKSLAND
CO. ROSCOMMON



Prepared for

Roscommon County Council

Prepared by

Traynor Environmental Ltd

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This report refers, within the limitations stated, to the condition of the site at the time of the report. No warranty is given as to the possibility of future changes in the condition of the site. The report as presented is based on the information sources as detailed in this report, and hence maybe subject to review in the future if more information is obtained or scientific understanding changes.

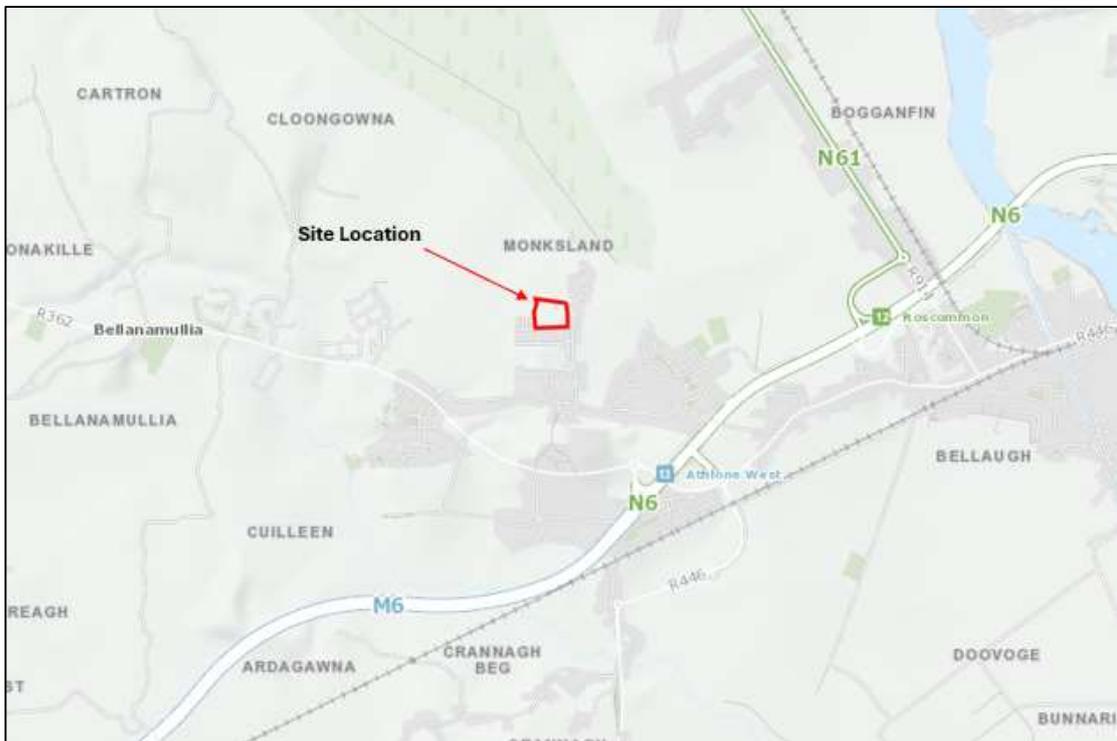
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1.0 INTRODUCTION

Traynor Environmental Ltd. has prepared the following Environmental Impact Assessment ('EIA') Screening Report for the proposed development at Sli an Choiste, Monksland, Co. Roscommon for Roscommon County Council ('the Applicant'). The proposed development will consist of: The construction of 51 no. residential units which comprises of (a) Type A- 12 no. two storey 2 bed semi-detached houses (b.) Type B - 18 no. two storey 3 bed semi-detached houses. (c.) Type B1 - 2 no. two storey 3 bed semidetached houses (d.) Type B2 - 4 no. two storey 3 bed semi-detached houses. (e.) Type C- 9 no. two storey 2 bed terraced houses, f.) Type D - 1 no. single storey 3 bed detached house g.) Type D1 - 1 no. single storey 3 bed detached house g.) Type E - 4 no. single storey 2 bed detached The proposed development will also consists of widening of existing site entrance, construction of access roads, footpaths and cycle paths, public & private open spaces, car parking spaces, electric car charging points, boundary wall/fence, pedestrian link, street lighting, ducting for utilities, hard & soft landscaped areas, removal of existing trees and planting of new native trees, hedges and shrubs , formation of new connections to existing foul services and to pumping station, attenuation tank for surface water drainage, ESB substation and all associated site works and services.

Figure 1.1: Site Location Map



The purpose of this report is to provide the information required under Schedule 7A, having regard to the criteria set out in Schedule 7 of the Planning and Development Regulations 2001, as amended. This information will enable a screening determination in respect of the need for an Environmental Impact Assessment Report ('EIAR') for the proposed development.

There is a mandatory requirement for an EIAR to accompany a planning application for some types of development that meet or exceed the "thresholds" specified in Schedule 5 to the Planning and Development Regulations. In addition to the mandatory requirement, there is a case-by-case assessment necessary for sub-threshold developments as they may be likely to have significant effects on the environment. If a sub-threshold development is determined to be likely to have significant effect on the environment, then an EIAR will be required. The second reason for this report is to document the studies undertaken by the Applicant, and the design team, to consider whether the development would be likely to have significant effects on the environment. The proposed development and component parts have been considered, as documented in Section 2, against the thresholds for EIA as outlined in the Planning and Development Regulations 2001 (as amended).

1.1 EIA SCREENING LEGISLATION AND GUIDANCE

The legislation and guidance listed below has informed this report and the method to EIA Screening:

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports. (2022). Environment Protection Agency.
- Environmental Impact Assessment Screening, OPR Practice Note PN02 (Office of the Planning Regulator, 2021).
- European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018.
- Environmental Impact Assessment of Projects – Guidance on Screening. (2017). European Commission.
- Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report. (2017) European Commission.
- Guidelines for Planning Authorities on carrying out Environmental Impact Assessment. (August 2018). Department of Housing, Planning and Local Government.
- Advice Notes for preparing Environmental Impact Statements. (Draft, September 2015). Environment Protection Agency.
- Interpretation of definitions of project categories of Annex I and II of the EIA Directive. (2015) European Commission.
- European Union Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU.
- Planning and Development Act, 2000 (as amended).
- Planning and Development (Housing) and Residential Tenancies Act 2016
- Planning and Development Regulations 2001 (as amended).

The national requirements to provide an EIA with a planning application are outlined in *Planning and Development Act 2000 as amended* ('the Act') and *Planning and Development Regulations, 2001 as amended* ('the Regulations'). In addition to the national legislation there are requirements set out in the EIA Directive (Directive 2011/92/EU as amended by 2014/52/EU); for relevant purposes, the EIA Directive has been transposed into Irish planning legislation through amendments to the Act and the Regulations.

This includes: the criteria set out Schedule 7 of the Regulations; the information set out at Schedule 7A; any further relevant information on the characteristics of the development and its likely significant effects on the environment submitted by the applicant; any mitigation measures proposed by the applicant; the available results, where relevant, of preliminary verifications or assessments carried out under other relevant EU environmental legislation, including information submitted by the applicant on how the results of such assessments have been taken into account, and; the likely significant effects on certain sensitive ecological sites.

The environmental considerations which continue to apply in relation to the proposed development, are Sections 181A to 181C of the Planning and Development Act, which provide for a streamlined Environmental Impact Assessment and Appropriate Assessment Process which is administered by An Bord Pleanála as required.

The screening process followed in this report is in accordance with the EIA Directive 2011/92/EU of the European Parliament and of the Council as amended by 2014/52/EU and as transposed by the Act and the Regulations and follows the format as per Section 3.2 of the EPA Guidelines (2022). The potential for significant effects of the proposed Project has been considered against the criteria under Schedule 7 of the *Planning and Development Regulations, 2001 as amended*.

In producing this report due regard has been paid to other EIA guidance including the European Commission's 2017 *EIA of Projects Guidance on Screening* as well as the published *Guidelines for Planning Authorities* and the OPR Practice Note PN02 Environmental Impact Assessment Screening.

Preliminary Screening for EIA

The Planning and Development Regulations 2001 (as amended) provide for the preliminary examination for EIA. The Departmental Guidelines (August 2018) state as follows in relation to such a preliminary examination:

"For all sub-threshold developments listed in Schedule 5 Part 2, where no EIA is submitted or EIA determination requested, a screening determination is required to be undertaken by the competent authority unless, on preliminary examination it can be concluded that there is no real likelihood of significant effects on the environment. This is initiated by the competent authority following the receipt of a planning application or appeal.

1.2 SCREENING METHODOLOGY

The screening process followed in this report is in accordance with the EIA Directive 2011/92/EU of the European Parliament and of the Council as amended by 2014/52/EU and follows the format as per Section 3.2 of the EPA Guidelines (2022).

The key steps to screen for an EIA are set out in Section 3.2 of the EPA Guidelines are as follows:

1. Is the development a type that that requires EIA?
2. Is it of a type that requires mandatory EIA?
3. Is it above the specified threshold?
4. Is it a type of project that could lead to effects? and/or
5. Is it a sensitive location? and/or
6. Could the effects be significant?

The information required to be submitted to make a determination on EIA Screening is set out in Schedule 7A of the Regulations of 2001 (see also Annex IIA of the EIA Directive).

However, it is important to note that Schedule 7A states 'The compilation of the information at paragraphs 1 to 3 [of Schedule 7A] shall take into account, where relevant, the criteria set out in Schedule 7.' Having regard to this for the purposes of compiling the relevant information on the likely effects of the proposed development and to address points 4 to 6 above, an evaluation of the characteristics of the project, the sensitivity of the location of the proposed development, and the potential for significant impacts has been made with regard to Schedule 7 of the Regulations.

Schedule 7 of the Regulations of 2001 sets out the criteria to determine whether a development would or would not be likely to have significant effects on the environment. The criteria are broadly set out under the three main headings:

- 1) *Characteristics of proposed development* (Section 3.0)
 - a) *the size and design of the whole of the proposed development,*
 - b) *cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,*
 - c) *the nature of any associated demolition works,*
 - d) *the use of natural resources, in particular land, soil, water, and biodiversity,*
 - e) *the production of waste,*
 - f) *pollution and nuisances,*
 - g) *the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and*
 - h) *the risks to human health (for example, due to water contamination or air pollution).*
- 2) *Location of proposed development* (Section 4.0)
 - a. *the existing and approved land use,*
 - b. *the relative abundance, availability, quality, and regenerative capacity of natural resources (including soil, land, water, and biodiversity) in the area and its underground,*
 - c. *the absorption capacity of the natural environment, paying particular attention to the following areas:*

- i. wetlands, riparian areas, river mouths.
- ii. coastal zones and the marine environment.
- iii. mountain and forest areas.
- iv. nature reserves and parks.
- v. areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and.
- vi. areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.
- vii. densely populated areas.
- viii. landscapes and sites of historical, cultural, or archaeological significance.

3) Types and Characteristics of Potential Impacts (Section 5)

The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—

- a. the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
- b. the nature of the impact,
- c. the transboundary nature of the impact,
- d. the intensity and complexity of the impact,
- e. the probability of the impact,
- f. the expected onset, duration, frequency, and reversibility of the impact,
- g. the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and
- h. the possibility of effectively reducing the impact.

However, it is important to note that Schedule 7A states 'The compilation of the information at paragraphs 1 to 3 [of Schedule 7A] shall take into account, where relevant, the criteria set out in Schedule 7.' The main body of this report (Sections 3.0, 4.0 and 5.0) will cover Schedule 7A fully, but it has been set out to present the information under the headings provided for in Schedule 7 in order to assist the Planning Authority in its screening assessment.

1.3 CONTRIBUTORS TO THE EIA SCREENING REPORT

This EIA Screening Report has been informed by the enclosed documents (and the relevant listed mitigation measures as included therein). The preparation and co-ordination of this screening report has been completed by Traynor Environmental Ltd. and has relied on specialist input from the design team.

The various reports address a variety of environmental issues and assess the impact of the proposed development and demonstrate that subject to the various construction and design related mitigation measures recommended that the proposed development will not have a significant impact on the environment. This EIA Screening Report should be read in conjunction with the plans and particulars submitted with the proposal.

2.0 SCREENING EVALUATION

2.1 IS THE DEVELOPMENT A PROJECT

The first step in screening is to examine whether the proposal is a project as understood by the EU Directive. For the purposes of the EU Directive, 'project' means: *"the execution of construction works or of other installations or schemes, or other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources."*

The EPA Guidance (2022) states that if a proposed project is not of a type covered by the Directive, there is no statutory requirement for it to be subject to environmental impact assessment. In determining if the proposed project is of a type covered by the Directive it may be necessary to go beyond the general description of the project and to consider the component parts of the project and/or any processes arising from it.

If any such parts or processes are significant and, in their own right fall within a class of development covered by the Directive, the proposed Project as a whole may fall within the requirements of the Directive.

Each element of the proposed development has been examined and the development clearly meets the definition of a Project as understood by the EU Directive.

2.2 IS THE DEVELOPMENT A PROJECT THAT REQUIRES A MANDATORY EIA

The next step is to determine if the proposed development is of a *project type* that requires mandatory EIA (i.e., is the proposed development of a project type in which a threshold do not exist). The types of projects to which thresholds do not apply are types that are considered to always be likely to have significant effects.

The type of projects for which an EIA is mandatory is set out in Schedule 5 Part 1 and Part 2 of the Regulations. An EIA is deemed mandatory under Section 172 of the Act to accompany a planning application for development for the types of projects set out in Schedule 5. This list was developed from Annex I and Annex II of the EIA Directive. The EPA Guidance (2022) requires an assessment beyond the general description of the project and to consider the component parts of the project and/or any processes arising from it.

In considering the wider context and the component parts of the project of the proposed development the thresholds of relevance to the proposal from Part 2 of Schedule 5 are set out below:

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 a 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 city or town in which the predominant land use is retail or commercial use).

15. Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development, but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.

For the project types of Class 10 (a) to (m) an EIA is mandatory only if the project equals or exceeds, as the case may be, a limit, quantity or threshold set out. Project Class 15 does not set out any thresholds and a case-by-case assessment is required to be undertaken.

2.3 IS THE PROJECT ABOVE THE THRESHOLD FOR EIA

An EIA is required to accompany an application for permission of a class set out in Schedule 5 Part 1 and Part 2 of the Regulations which equals or exceeds, as the case may be, a limit, quantity or threshold set for that class of development. A development that does not exceed a limit, quantity or threshold set for that class of development in Schedule 5 of the Regulations is known as a 'sub-threshold development'.

The proposed development and component parts have been considered against the thresholds outlined in Schedule 5, Part 2, Class 10 (a) to (m).

2.4 CONCLUSION – SUB THRESHOLD DEVELOPMENT

The proposed development is 'of a type set out in Part 2 of Schedule 5 [in the Planning and Development Regulations, 2001 (as amended)] which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development'. The development is outside the mandatory requirements for EIA and is considered to be sub-threshold for the relevant project type.

An EIA Screening Report is still required to accompany a sub-threshold development which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7. Therefore, the final step in the screening process is to consider whether the development would be likely to have significant effects on the environment and therefore require an EIA to be submitted and EIA carried out.

Directive 2014/52/EU requires the developer to provide information on the characteristics of the project and its likely significant effects on the environment, to allow the competent authorities to make a determination on the requirement for an EIA. The information required is set out in the Directive and transposed Schedule 7A of the Regulations.

The remainder of this report presents the information required by Schedule 7A to demonstrate the likely effects on the environment, having regard to the criteria set out in Schedule 7.

The following Sections 3.0, 4.0 and 5.0 will provide information on the characteristics of the proposed development, the location and context, and its likely impact on the environment. These sections present the information required under Schedule 7A of the Regulations, broadly set out in the structure Schedule 7 to ensure that each aspect for consideration is robustly addressed.

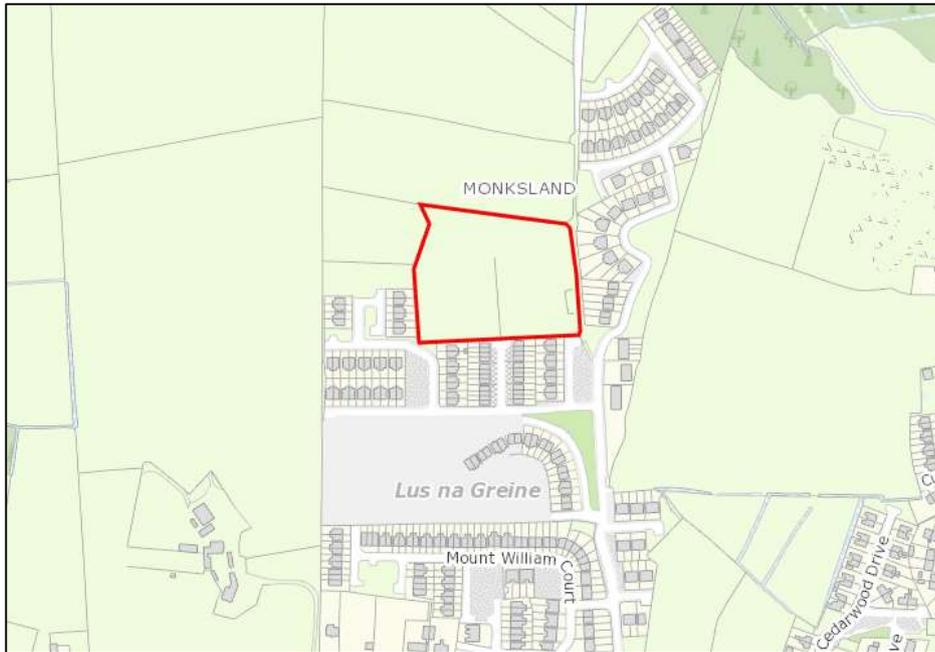
3.0 CHARACTERISTICS OF PROPOSED DEVELOPMENT

This section addresses the characteristics of proposed development by describing the physical characteristics of the whole proposed development and a description of the location of the proposed development.

3.1 SIZE AND DESIGN OF THE PROPOSED DEVELOPMENT

The site, which extends to circa 2 hectares, is located in the townland of Monksland, Athlone, Co Roscommon. The property is located at ITM Co-ordinate 600686, 741940.

Figure 3.1 –Site Location



The proposed development site is occupied by a field of undulating pasture which is partly divided into two sections by a central hedgerow. The field is bounded to the east by a laneway which runs on a north-south orientation between two overgrown hedgerows. To the east of the laneway, and to the south and southwest of the field, are parts of the modern Sí an Coiste housing estate. The field is bounded to the north and northwest by agricultural lands.

A temporary construction compound, site office and welfare facilities will be established on site at an agreed location within the Site boundary. Welfare facilities (canteens, toilets etc.) will be available within the construction compound on site.

It is envisaged that the duration of the proposed works described will be approximately 12 months.

Site works will be carried out only between the hours of 08:00 to 18:00 Mondays to Fridays inclusive, between 08:00 to 13:00 hours on Saturdays and not at all on Sundays and public holidays.

The main construction methodology is described in chronological order below.

- **Stage 1**- Excavation & site preparation works
- **Stage 2**- Substructure works
- **Stage 3**- Superstructure works

3.1.1 Excavation and site preparation works.

As with any construction site, a degree of excavation works is required to facilitate proposed ground and floor levels. In terms of excavation works, it is noted that the soil and stones derived from such excavation works on-site are not a waste, but a by-product as defined by the EPA, per the provisions of article 27(1) of European Communities (Waste Directive) Regulations (2011) which therefore can be reused without treatment either within the works or off site. Further, as with any site construction project the main contractor shall develop a system whereby details of all excavations, movement and treatment of excavated materials will be recorded throughout the construction stage of the project.

This will ensure full traceability of materials to any final destination(s). Any topsoil or excavated stockpiles shall be protected for the duration of the works and not located in areas where sediment laden runoff may enter drains to the North of the site. Also, for the duration of this phase of works across the site area the main contractor shall develop a system whereby details of all excavations, movement and treatment of excavated materials will be recorded throughout the construction stage of the project. This will ensure full traceability of materials to any final destination(s). Any topsoil or excavated stockpiles shall be protected for the duration of the works and not to be located in areas where sediment laden runoff may enter the adjacent watercourse which passes along the southern site boundary.

3.1.2 Substructure work

It is envisaged that standard foundation works will be appropriate. If ground conditions are unsuitable, then standard piled foundations will be incorporated into construction works.

3.1.3 Superstructure work

On completion of the substructure works, the next phase of construction to the superstructure(s) will commence. The materials required for all buildings will be constructed on a sequential basis. Materials will be delivered to site using an 'as required' approach. This will mitigate against traffic congestion as well as reducing the amount of space required for material/vehicle storage on site. Once the building structures in each phase have been largely complete, the completion of the facades can commence along with the installation of mechanical and electrical services and building finishes. Final drainage and utilities connections will be completed towards the end of the construction programme.

3.1.4 Construction materials

The following construction materials will be required for the works:

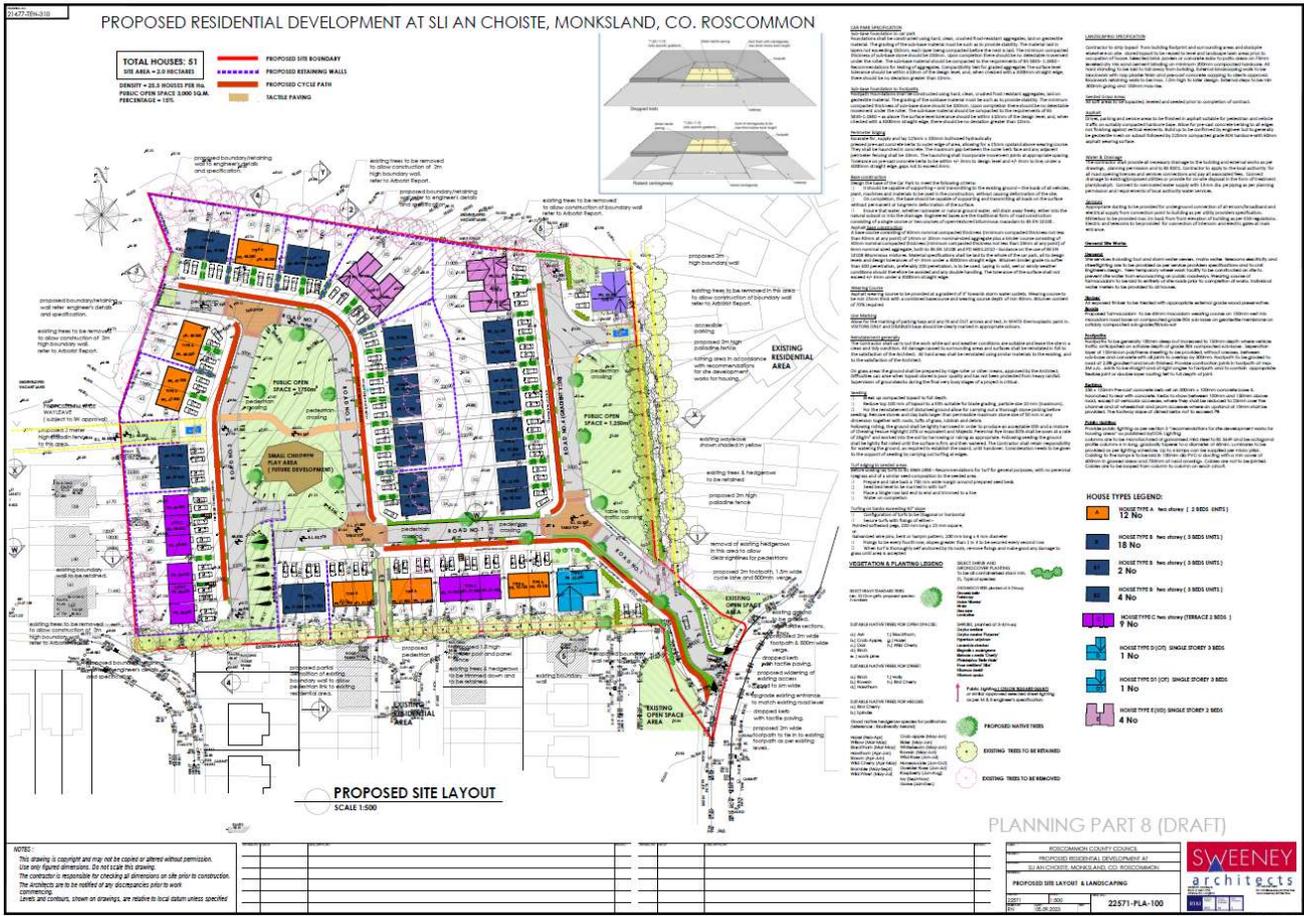
- Concrete: This will be delivered by a ready-mix truck and placed directly in prepared forms.
- Hardcore: This will be stored in the Construction compounds and delivered to site location by dump truck.

The following materials will be stored in the construction compound:

- PVC Drainage Piping and fittings.
- PVC ducting
- Acodrain drainage hardware
- Concrete Blocks and premixed mortar in bins
- Recessed Metal I.C. covers.
- Limestone and Concrete Paving Materials
- Pre-bagged bedding mortars and grouts
- Concrete mini pillar vaults
- Materials for Public lighting installation
- Builders site fencing, site access and traffic control equipment

The main site layout for the proposed development is shown in Figure 3.2 below.

Figure 3.2 –Site Layout



3.2 CUMULATION WITH OTHER EXISTING OR PERMITTED DEVELOPMENT

This section outlines the potential cumulation with other existing or permitted developments. As part of the assessment of the impact of the proposed development, account has been taken of any relevant developments that are currently permitted, or under construction and substantial projects for which planning has been submitted within the surrounding areas, as well as existing local land uses.

A preliminary assessment of potential cumulative effects on the environment is facilitated via the Source-Pathway-Receptor (SPR) model which is a multi-step process. The SPR methodology is a tool that ensures the most cautious means of assessment at the preliminary stages of a proposed development. The use of this tool ensures that all possible impacts are identified at a very early stage thus enabling further studies, mitigation measures or ameliorative actions to be put in place. The inherent use of the precautionary principle within the SPR methodology means that all potential for environmental impacts can be identified at a preliminary stage without any need for detailed studies, but rather upon available desktop information.

In order for there to be a potential cumulative effect all three elements of the SPR elements need to be present. If there is no pathway or functional link (direct or indirect) between the proposed development and a receptor, there is no potential for effect. Additionally, if there is no receptor within the area of a potential impact, there is similarly no effect as it does not cause harm to the environment due to the lack of a receptor. There is no specific guidance available for a generic zone of influence to focus the assessment of existing land use and/or permitted projects that may result in cumulative effects. The research area has been established using expert judgement and based on the accessibility of data and taking into consideration the potential zone of influence of the potential environmental impacts of the proposed development. In considering the potential effects of the proposed development (Section 5), it can be established that the closer to the works, there is a greater the potential for impacts. The most significant potential environmental impacts are likely to be confined within 50-150 m of the proposed development. The project being considered, is not expected to have Regional, National, or International, or Transboundary impacts.

3.2.1 Existing Development

The site, as shown in Figure 3.3, is zoned in the Roscommon County Development Plan 2022 – 2028. Monksland/Bellanamullia LAP 2016-2022 – Roscommon as ‘‘New Residential’’ and zoning objective described as ‘Provide for new residential development, including a mix of residential options, as well as appropriate local services and community facilities such as corner shops, recreation and amenity, education and childcare, community and recycling facilities, public transport and renewable energy options.’

- Preserve the residential amenity of the neighbourhood.
- Have regard to the overall heritage of the area.
- Require the inclusion of appropriate open spaces in developments in this zone.

Population

Table 3.1 compares population change in the State and Roscommon between the 2016 and 2022 census.

Table 3.1. Population Changes 2016 - 2022

Population Change 2016 – 2022			
Location	2016	2022	% Change 2016 - 2022
State	4,761,865	5,123,536	+7.6%
Roscommon	69,995	64,544	+8.4%

3.2.2 Permitted Development

The Site is within the administrative jurisdiction of Roscommon County Council.

The planning history for the Site of the Proposed Development was reviewed from data sources including:

- Roscommon County Council planning website, <https://www.roscommoncoco.ie>.
- An Bord Pleanála website, <http://www.pleanala.ie/>.
- EIA Portal, as provided by the Department of Housing, Planning and Local

Please refer to Table 3.2 details planning applications in the vicinity of the Proposed Development site.

Table 3.2 Planning Applications previously in the vicinity of the proposed development site.

Reg. No	Applicant name and Development address	Proposed Development	Location (relative to proposed development site)
21455	Pat Donoghue	Retention Permission and Permission for Variation to previous Planning Permission Granted under Ref. No. PD/19/348 as follows: Retention and completion of revised House Type "A" composed of 6 no. x 3 Bed Two Storey Semi Detached Dwellings (3 no. Blocks) on Site Nos. 1,2,5,6,9 and 10 and to include roof eaves alignment, changes to windows/external door units, wall finishes and removal of chimney; Retention and completion of revised House Type "B" composed of 6 no. x 4 Bed Two Storey Semi Detached Dwellings (3 no. blocks) on Site Nos. 3, 4, 7, 8, 11 and 12 and to include roof eaves alignment, re-design of floor layouts, changes to windows/external door units, wall finishes and removal of chimney; Changes to House Type "A" composed of 16 no x 3 Bed Two Storey Semi Detached Dwellings (8 no. Blocks) on Sites Nos. 13, 14, 17, 18, 21, 22, 27, 28, 31, 32, 35, 36, 39, 40, 41 and 42 to include roof eaves alignment, changes to windows/external door units, wall finishes and removal of chimney.	115m south of Proposed Site

3.3 NATURE OF ANY ASSOCIATED DEMOLITION WORKS

No demolition works will take place as part of the proposed development. The proposed development will not give rise to the removal of any of the mature hedgerow or treeline vegetation.

3.4 USE OF NATURAL RESOURCES (LAND, SOIL, WATER, BIODIVERSITY)

This section describes the proposed development in terms of the use of natural resources, in particular land, soil, water, biodiversity. In the overall context of Monkland, Co. Roscommon, and the proposed development there will not be a significant consumption of natural resources during construction and operation. The main use of natural resources will be land, soil, and water. Other resources used will be construction materials which will be typical raw materials used in the construction of new buildings. The scale and quantity of the materials used will not be such that would cause concern in relation to significant effects on the environment.

3.4.1 Land and Soil

The proposed development will require the excavation and removal of soils and materials for the purposes of excavation for foundations, landscaping, access roads and services. Soils will be excavated to facilitate the development.

It is proposed to reuse soil excavated on site, however should soil be removed off site, prior to being exported off-site, shall be classified as inert, non-hazardous or hazardous in accordance with the EPA's Waste Classification Guidance – List of Waste & Determining if Waste is Hazardous or Non-Hazardous document dated 1st June 2015 to ensure that the waste material is transferred by an appropriately permitted waste collection permit holder and brought to an appropriately permitted or licensed waste facility. Materials that can be reused will be notified to the EPA as a by-product. This ensures that waste and other materials removed from the site will have no significant effect on the environment. There will be a requirement for deliveries of imported stone, and other construction materials.

3.4.2 Water Consumption

The construction or operation of the scheme will not use such a quantity of water to cause concern in relation to significant effects on the environment.

During construction of the scheme, water will be required for offices, welfare facilities, this will be provided by either tanker or temporary connection to the public main by agreement with Irish Water. The construction phase will not use such a quantity of water to cause concern in relation to significant effects on the environment.

Once the development is completed and the development is in use there will be a domestic water requirement for toilets.

A Pre-connection application was lodged with Irish Water and a confirmation of feasibility received. (IW Ref CDS23002229.).

3.4.3 Biodiversity Resources

Investigations into the implications on existing biodiversity including species and habitats has been undertaken through the Appropriate Assessment prepared by Caroline Shiel, B.Sc., Ph.D.

The habitats recorded on site are described below, no Annex I habitats were recorded within the proposed development site. The site habitats have been defined using Fossitt's 'A Guide to Habitats in Ireland'. The application site does not lie within or adjacent to any area that has been designated for nature conservation purposes.

Site habitats using the Fossitt's Guide to Habitats in Ireland were identified. Several habitat types were identified:

- agricultural grassland
- Hedgerow
- Treelines

Natura 2000 Sites

There are sixteen Natura 2000 designated sites within 15km of the application site. Only the first four sites listed in Table 3.3 will be considered further. The remaining 12 sites range from 5.74 km to 13.8 km from the proposed site. There is no hydrological connectivity between the proposed site and these twelve sites, therefore adverse effects can be ruled out.

Table 3.3 – Natura 2000 Sites Within 15km of the Proposed Site

SITE	PROTECTED SITE	SITE CODE	DISTANCE FROM SITE
Site at Monksland	Lough Ree SAC	000440	1.94 km to north-east
	Lough Ree SPA	004064	1.94 km to north-east
	River Shannon Callows SAC	000216	2.6 km to south-east
	Middle Shannon Callows SPA	004096	2.6 km to south-east
	Castlesampson Esker SAC	001625	5.74 km to south-west
	Ballynamona Bog and Corkip Lough SAC	002339	5.95 km to north-west
	Crosswood Bog SAC	002337	7.25 km to south east
	Cam Park Bog SAC	002336	9.73 km to east
	Lough Funshinagh SAC	000611	10.3 km to north-west
	Pilgrims Road Esker SAC	001776	10.5 km to south
	Mongan Bog SAC	000580	11.1 km to south east
	Mongan Bog SPA	004017	11.1 km to south-east
	Fin Lough (Offaly) SAC	000576	12.3km to south east
	Lough Croan Turlough SPA	004139	13.5 km to north west
	Lough Croan Turlough SAC	000610	13.5 km to north west
	Killeglan Grassland SAC	002214	13.8 km to west

Table 3.4 – Qualifying features and threats to each protected site

SITE	SITE CODE	DISTANCE FROM SITE	QUALIFYING FEATURES (Qualifying Interests or Special Conservation Interests)	SITE DESCRIPTION AND VULNERABILITY/THREATS
Lough Ree SAC	000440	1.94 km to north east	<p>Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]</p> <p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Alkaline fens [7230]</p> <p>Limestone pavements [8240]</p> <p>Bog woodland [91D0]</p> <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p><i>Lutra lutra</i> (Otter) [1355]</p>	<p>Lough Ree is the third largest lake in Ireland and is situated in an ice-deepened depression in Carboniferous limestone on the river Shannon system between Lanesborough and Athlone. It has a very long, indented shoreline and hence has many sheltered bays. Although the main habitat, by area, is the lake itself, interesting shoreline, terrestrial and semi- aquatic habitats also occur.</p> <p>The lake has been classified as mesotrophic in quality, but the size of the system means that a range of conditions prevail depending upon, for example, rock type. This gives rise to local variations in nutrient status and pH, which in turn results in variations in the phytoplankton and macrophyte flora.</p> <p>The water of Lough Ree tends to be strongly peat-stained, restricting macrophytes to depths of less than 2 m, and as a consequence, macrophytes are restricted to sheltered bays, where a typical Shannon flora occurs. Reedbeds of Common Reed (<i>Phragmites australis</i>) are an extensive habitat in a number of more sheltered places around the lake.</p> <p>Dry broadleaved semi-natural woodland occurs in several places around the lake, most notably at St John's Wood and on Hare Island. St John's Wood is recognised as the largest and most natural woodland in the Midlands. Small examples of raised bog occur, which are of interest in that they show a natural transition through wet woodland and/or swamp to lakeshore habitats.</p> <p>The lake itself contains one of only two populations in Ireland of the endangered fish species, Pollan (<i>Coregonus autumnalis</i>).</p> <p>Small flocks of Greenland White-fronted Goose, an Annex I species on the E.U. Birds Directive, use several areas of callowland around the lake in winter.</p> <p>Some of the lake islands provide nesting sites for Common Tern, a species listed on Annex I of the E.U. Birds Directive. The lake also provides excellent breeding habitat for wildfowl, including Common Scoter (30-40 pairs), a rare breeding species listed as "Endangered" in the Red Data Book, and Tufted Duck (>200 pairs).</p>

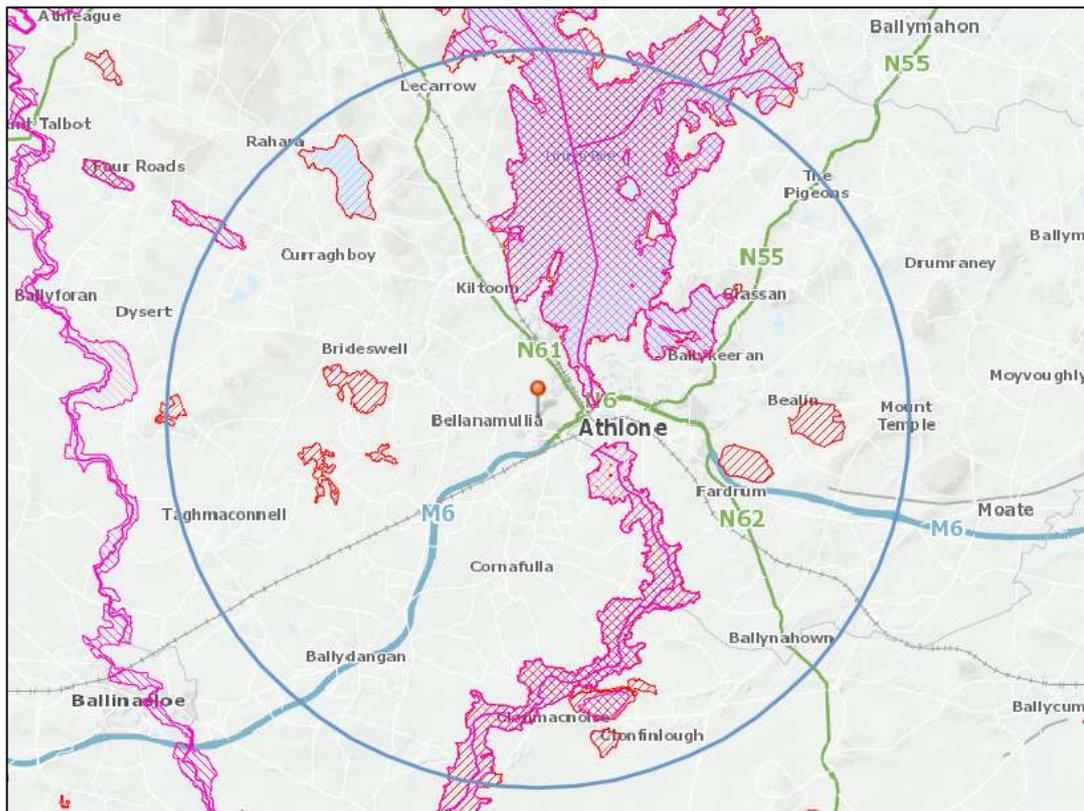
				<p>There is a population of Otter around the lake. This species is listed in the Red Data Book as being threatened in Europe and is protected under Annex II of the E.U. Habitats Directive.</p> <p>Threats identified by NPWS</p> <p>Land uses within the site include recreation in the form of cruiser hire, angling, camping, picnicking, and shooting. Chalet accommodation occurs at a few locations around the lake. Low-intensity grazing occurs on dry and wet grassland around the shore, and some hay is made within the site. Some of these activities are damaging, but in a very localised way, and require careful planning.</p> <p>The main threat to the aquatic life in the lake comes from artificial enrichment of the waters by agricultural and domestic waste, and also by peat silt in suspension, which is increasingly limiting the light penetration, and thus restricting aquatic flora to shallower waters. At present Lough Ree is less affected by eutrophication than Lough Derg.</p> <p>Lough Ree and its adjacent habitats are of major ecological significance. Some of the woodlands around the lake are of excellent quality. St John's Wood is particularly important; it is one of the very few remaining ancient woodlands in Ireland.</p> <p>The lake itself is an excellent example of a mesotrophic to moderate-eutrophic system, supporting a rare fish species and a good diversity of breeding and wintering birds.</p>
Lough Ree SPA	004064	1.94km to north-east	<p>Little Grebe (<i>Tachybaptus ruficollis</i>) [A004]</p> <p>Whooper Swan (<i>Cygnus cygnus</i>) [A038]</p> <p>Wigeon (<i>Anas penelope</i>) [A050]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Mallard (<i>Anas platyrhynchos</i>) [A053]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p>	<p>Situated on the River Shannon between Lanesborough and Athlone, Lough Ree is the third largest lake in the Republic of Ireland. It lies in an ice-deepened depression in Carboniferous Limestone. The lake has a very long, indented shoreline and hence has many sheltered bays. It also has a good scattering of islands, most of which are included in the site.</p> <p>Lough Ree is one of the most important Midland sites for wintering waterfowl. Greenland White-fronted Goose has been recorded on occasion on the flooded margins of the site.</p> <p>Lough Ree SPA is of high ornithological importance for both wintering and breeding birds. It supports nationally important populations of eleven wintering waterfowl species. The site has a range of breeding waterfowl species, notably nationally important populations of</p>

			<p>Tufted Duck (<i>Aythya fuligula</i>) [A061]</p> <p>Common Scoter (<i>Melanitta nigra</i>) [A065]</p> <p>Goldeneye (<i>Bucephala clangula</i>) [A067]</p> <p>Coot (<i>Fulica atra</i>) [A125]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Lapwing (<i>Vanellus vanellus</i>) [A142]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Wetland and Waterbirds [A999]</p>	<p>Common Scoter and Common Tern. Of particular note is the regular presence of three species, Whooper Swan, Golden Plover, and Common Tern, which are listed on Annex I of the E.U. Birds Directive. Parts of Lough Ree SPA are Wildfowl Sanctuaries.</p>
<p>River Shannon Callows SAC</p>	<p>000216</p>	<p>2.6 km to south-east</p>	<p>Molinia meadows on calcareous, peaty, or clayey-silt-laden soils (<i>Molinia caerulea</i>) [6410]</p> <p>Lowland hay meadows (<i>Alopecurus pratensis</i>, <i>Sanguisorba officinalis</i>) [6510]</p> <p>Alkaline fens [7230]</p> <p>Limestone pavements [8240]</p> <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p>	<p>The River Shannon Callows is a long and diverse site which consists of seasonally flooded, semi-natural, lowland wet grassland, along and beside the river between the towns of Athlone and Portumna. It is approximately 50 km long and averages about 0.75 km wide (reaching 1.5 km wide in places). Along much of its length the site is bordered by raised bogs (many, but not all, of which are subject to large-scale harvesting), esker ridges and limestone-bedrock hills. The soils grade from siltyalluvial to peat. This site has a common boundary, and is closely associated, with two other sites with similar habitats, River Suck Callows and Little Brosna Callows.</p> <p>Specific Threats identified by NPWS.</p> <p>The River Shannon is used increasingly for recreational purposes with coarse angling and boating accounting for much of the visitor numbers. Intermittent and scattered damage to the habitats has occurred due to over-deepening of drains and peat silt deposition, water-skiing, ploughing and neglect of hay meadow (or reversion to pasture). However, none of these damaging activities can yet be said to have a serious impact.</p>

			<p><i>Lutra lutra</i> (Otter) [1355]</p>	<p>Threats to the quality of the site may come from the siting of boating marinas in areas away from centres of population, fertilising of botanically rich fields, the use of herbicides, reversion of hay meadow to pasture, neglect of pasture and hay meadow, disturbance of birds by boaters, anglers, birdwatchers, and the general tourist. The maintenance of generally high-water levels in winter and spring benefits all aspects of the flora and fauna, but in this regard, summer flooding is a threat to breeding birds, and may cause neglect of farming.</p> <p>The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland, and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. Excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive occur within the site – <i>Molinia</i> meadows and lowland hay meadows with good examples of a further three Annex habitats (two with priority status).</p> <p>In winter, the site is internationally important for numbers and species of waterfowl. In spring it feeds large numbers of birds on migration, and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake, as well as a very wide variety of more common grassland and wetland birds. The presence of Otter, an Annex II species, adds further importance to the site.</p>
<p>Middle Shannon Callows SPA</p>	004096	2.6 km to south-east	<p>Whooper Swan (<i>Cygnus cygnus</i>) [A038]</p> <p>Wigeon (<i>Anas penelope</i>) [A050]</p> <p>Corncrake (<i>Crex crex</i>) [A122]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Lapwing (<i>Vanellus vanellus</i>) [A142]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p>	<p>The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50 km from the town of Athlone to the town of Portumna; it lies within Counties Galway, Roscommon, Westmeath, Offaly, and Tipperary. The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. The callows are mainly too soft for intensive farming but are used for hay or silage or for summer grazing. Other habitats of smaller areas which occur alongside the river include lowland dry grassland, freshwater marshes, reedbeds and wet woodland. The diversity of semi-natural habitats present and the sheer size of the site attract an excellent diversity of bird species, including significant populations of several.</p> <p>The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Whooper Swan, Wigeon, Corncrake, Golden Plover, Lapwing, Black-tailed Godwit and Black-</p>

		<p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>	<p>Headed Gull. It is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The Middle Shannon Callows qualifies as a site of international importance as it regularly supports in excess of 20,000 wintering waterbirds.</p> <p>The callow grasslands provide optimum feeding grounds for these various species of waterfowl, while many of the birds also roost or rest within the site. The Shannon Callows is also an important site for breeding waders with the total population on the Shannon and Little Brosna Callows being one of three major concentrations in Ireland and Britain in 1987. The Middle Shannon Callows SPA is an internationally important site that supports an assemblage of over 20,000 wintering waterbirds. It holds internationally important populations of two species - Whooper Swan and Black-tailed Godwit. In addition, there are four species that have wintering populations of national importance. The site also supports a nationally important breeding population of Corncrake. Of particular note is that several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e., Whooper Swan, Corncrake and Golden Plover.</p>
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Figure 3.3. The Application Site (Outlined in Red) in relation to the Natura 2000 Sites within 15km



Appropriate Assessment

Following objective analysis of the proposed construction project, and assuming all codes of best practice and management are complied with, this Appropriate Assessment (Stage 1) concludes the following:

1. It is possible to conclude that there would be no significant effects, no potentially significant effects, and no uncertain effects if the project were to proceed.

It is therefore the determination of this report that it is not necessary to proceed to Stage 2 of the Appropriate Assessment process and the preparation of a Natura Impact Statement is not required.

3.5 PRODUCTION OF WASTE

3.5.1 Construction Phase

A Resource Waste Management Plan will be prepared at the detailed design stage. The RWMP will describe best practice approaches to prevent waste, reuse materials, reduce waste and better manage C&D waste that cannot be prevented on development projects.

Waste will also be generated from construction workers e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminum cans, tins, and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

Table 3.4 shows the breakdown of C&D waste types produced on a typical site based on data from the EPA National Waste Reports, the GMIT and other research reports, however as most of the construction of the housing units are off site the below table % there may be a variance to the below table.

Table 3.4 Waste materials generated on a typical Irish construction site.

Waste Types	%
Mixed C&D	33
Timber	18
Metals	8
Concrete	6
Other	15
Total	100

3.5.2 Operational Phase Waste

An Operational Waste Recycling Management Plan (OWRMP) will be prepared at the detailed design stage.

The OWRMP will provide guidance regarding management of waste during the operational phase of the proposed development to ensure it is undertaken in accordance with the current legal and industry standards. The OWRMP aims to ensure maximum recycling, reuse, and recovery of waste with diversion from landfill, wherever possible.

The proposed development will give rise to a variety of everyday waste and recycling from the development during the operational phase, i.e., when the project is completed, and fully operational. The typical non-hazardous and hazardous wastes that will be generated at the proposed development will include the following:

- Dry Mixed Recyclables (DMR) - includes wastepaper (including newspapers, magazines, brochures, catalogues, leaflets), cardboard and plastic packaging, metal cans, plastic bottles, aluminum cans, tins, and Tetra Pak cartons.
- Organic waste – food waste and green waste generated from internal plants / flowers.
- Glass; and
- Mixed Non-Recyclable (MNR)/General Waste.

In addition to the typical waste materials that will be generated at the development on a daily basis, there will be some additional waste types generated less frequently / in smaller quantities which will need to be managed separately including:

- Green / garden waste may be generated from external landscaping.
- WEEE
- Light bulbs.

Wastes should be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the re-use, recycling, and recovery of waste with diversion from landfill wherever possible.

All waste contractors collecting waste from the site must hold a valid collection permit to transport waste which is issued by the National Waste Collection Permit Office (NWCPPO) and waste will only be brought to suitably registered/permited/licensed facilities. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices.

These measures will ensure the waste arising from the development is dealt with in compliance with the provisions of the *Waste Management Act 1996*, as amended, associated Regulations, the *Litter Pollution Act 1997* and the *EMR Waste Management Plan (2015 - 2021)*. It will also ensure optimum levels of waste reduction, reuse, recycling, and recovery are achieved.

3.6 POLLUTION AND NUISANCES

There are potential short-term nuisances such as dust, noise, as well as the potential for pollution of surface water/ groundwater associated with construction activities. The construction activities shall only take place in accordance with standard construction times.

A detailed CEMP will be prepared and followed at construction stage by the appointed contractor. The CEMP will outline construction phase mitigation and management of: air quality control (dust), noise and vibration, fuel and chemical handling groundwater and surface water that will be undertaken during the construction phase.

3.7 RISK OF MAJOR ACCIDENTS AND/OR DISASTERS

3.7.1 Landslides, Seismic Activity and Volcanic Activity

There have been no recorded landslide events at the site. Due to the local topography and the underlying strata, there is a negligible risk of a landslide event occurring at the site. There is a very low risk of seismic activity at the proposed development site. There are no active volcanoes in Ireland so there is no risk from volcanic activity.

3.7.2 Flooding/Sea Level Rise

The potential risk of flooding on the site was conducted by reviewing historical information, identifying sources of potential flood risk to the site, and using predictive information.

All relevant flood maps for the area have been reviewed for the proposed development which assessed the potential flood risk associated with fluvial, groundwater, coastal and pluvial flooding. Overall, there is no potential for flooding at the site. The development as proposed is not predicted to result in an adverse impact to the existing hydrological regime of the area. Please refer to Section 4.2.8 which assesses flood risk in more detail.

3.7.3 Major Accidents/Hazards

The potential interaction with sites registered under the Seveso Directive (Directive 82/501/EEC, Directive 96/82/EC, Directive 2012/18/EU) and the Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the "COMAH Regulations"), which implement the latest Seveso III Directive (2012/18/EU) has been considered in respect to notified installations and their proximity to the proposed development site. Aurivo Dairy Ingredients Ltd, Dublin Road, Ballaghadreen, Co. Roscommon (Lower Tier Establishment) is the closest notified Seveso establishment to the proposed development and is located 75 km to the north of the site. Due to the proposed development falling 75 km from the closest Seveso site, the site will not form a constraint to the proposed development at this location.

3.7.4 Minor Accidents/Leaks

There is a potential impact on the receiving environment as a result of minor accidents/leaks of fuel/oils during the construction.

3.8 RISKS TO HUMAN HEALTH

The EC 2017 Guidance on the preparation of the Environmental Impact Assessment Report outlines that human health is a very broad factor that is highly project dependent. The guidance states: The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study.

The EPA guidance explains that the scope of population and human health is project dependent but should consider significant impacts likely to affect aspects such as: convenience (expanded range of transport options); nuisance/ disturbance from lighting; displaced settlement patterns (residential); employment opportunities; settlement patterns; land use patterns; access for tourism, amenity, health impacts and/or nuisance due to noise, dust, or water pollution; and health and safety.

The characteristics of the proposed development, in terms of the risks to human health (for example, due to water contamination or air pollution) have been considered. The primary potential impacts of the proposed development on human health would be increased air pollution, noise, traffic, visual impact, or pollution of groundwater/nearby watercourses as a result of the proposed development. The subject site is located in an area zoned in the Monksland/Bellanamullia LAP 2016-2022 – Roscommon as 'New Residential'.

It is anticipated that the proposed development at this location would not have a significant negative impact on local parks, local tourism or shopping amenities that would pose a risk to human health. The increase in local population would only serve to continue the existing usage of such facilities. There are a variety of public transport options available to visitors and residents at the subject site. There are pedestrian routes, bus routes and cycling path facilities within reach of the national school development.

Geological Survey Ireland (GSI) data indicates that the site does not lie within an outer drinking water protection area (Bog of the Ring Public Water Supply Wells). The area is serviced by mains water supply therefore wells are not used for potable water supply. The proposed mitigation measures during the construction phase, including the implementation of a CEMP, will ensure that there is no impact on groundwater or the stormwater mains. During the Operational Phase, the proposed development design includes an appropriately designed stormwater network, following the principles of Sustainable Urban Drainage Systems best practice.

The proposed development will include the formation of new connections to existing foul services and to pumping station.

The Wastewater Discharge (Authorisation) Regulations 2007 (S.I. 684 of 2007) gives effect to the requirements of the Urban Wastewater Treatment Directive (Directive 91/271/EEC) and the Water Framework Directive (2000/60/EC) in Ireland. The Urban Wastewater Treatment Directive (UWWTD) lays down the requirements for the collection, treatment and discharge of urban wastewater and specifies the quality standards which must be based on agglomeration size before treated wastewater is released into the environment.

The priority objective for this river basin planning cycle is to secure compliance with the Urban Wastewater Treatment Directive and to contribute to the improvement and protection of waters in keeping with the water - quality objectives established by this Plan. Achieving this objective entails addressing waste - water discharges and overflows where protected areas (i.e., designated bathing waters, shellfish waters and Freshwater Pearl-Mussel sites) or high-status waters are at risk from urban waste-water pressures.

There are no predicted issues with capacity in relation to wastewater. These mitigation measures will ensure that the proposed development will not have a potential impact on local amenities or the local population.

4.0 LOCATION AND CONTEXT OF THE PROPOSED DEVELOPMENT

4.1 EXISTING AND APPROVED LAND USE

The site is situated to the west of Athlone Town and west of the River Shannon. The site is comprised of improved agricultural grassland surrounded by mature hedgerows/treelines. There are a variety of public transport options available in the area. There are a number of industrial units within the Monksland area. Nearby recreational facilities include St. Joseph's FC Athlone and playground Monksland.

4.2 RELATIVE ABUNDANCE, AVAILABILITY, QUALITY AND REGENERATIVE CAPACITY OF NATURAL RESOURCES IN THE AREA AND ITS UNDERGROUND

4.2.1 Land Use

According to the EPA Mapping using the "Corine 2018" land cover data indicates that the predominant land use of the site is 'Agricultural Areas - Pastures' (Code_231). The lands surrounding the site have different cover types consisting of Artificial Surfaces. Historical OSI maps (1837) shows the Site as having a school present. The Ordnance Survey maps for the area (1837 & 1888 - 1913) show the land in the vicinity of the development site as agricultural. The 1995-2005 aerial photographs show the site as being as agricultural. The 2013-2018 aerial photographs show the site as being as agricultural bounded by the Slí an Coiste housing estate to the east, south and southwest. The Corine Landcover (2018) for the site is presented below Figure 4.1.

4.2.2 Hydrogeology

According to GSI, the Groundwater Vulnerability represents the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated by human activities. The vulnerability of the groundwater depends on the time travel of infiltrating water, the quantity of contaminants that reach the groundwater and the contaminant attenuation capacity of the geological materials through which the water and contaminants infiltrate. The final vulnerability rating of an area is determined by the permeability and thickness of the subsoils underlying the groundwater, and the type of Recharge sources (diffuse or point source).

Therefore, areas where the infiltrating water and contaminants move faster from land to groundwater with high permeability are more vulnerable. According to the GSI the vulnerability classification for the proposed development site is 'High (H)' likely based on the presence of high Glaciofluvial sands and gravels. There were no karst features identified adjacent to the site. The groundwater vulnerability map for the proposed development site is presented below in Figure 4.2.

4.2.3 Soils

The "Teagasc Soils" from the GSI Mapping indicates the predominant soil type underlying the proposed development area to be fill derived chiefly from Sand and Gravels type described as 'Limestone sands and gravels (Carboniferous)'. The Soil Cover map for the site is presented below Figure 4. 3. The soil group is Glaciofluvial sands and gravels.

4.2.4 Quaternary Sediments

The quaternary geological period extends from about 1.5 million years ago to the present day and is sub divided into two epochs: the Pleistocene epoch, which covers the Ice Age period, and extends up to 10,000 years ago and the Holocene Epoch, which extends from that time to the present day. Information available on the GSI online Mapping ("Quaternary Sediments") indicate that the proposed development site is underlain predominantly by deposit type "Gravels derived from Limestones" (refer to Figure 4.4).

4.2.5 Bedrock Geology

The information obtained from the GSI Map indicates that the proposed development site is predominantly underlain by Viséan Limestones described as "Undifferentiated limestone". The Bedrock geology for the proposed site is presented below in Figure 4. 5.

Figure 4.1: Corine Landcover (2018)

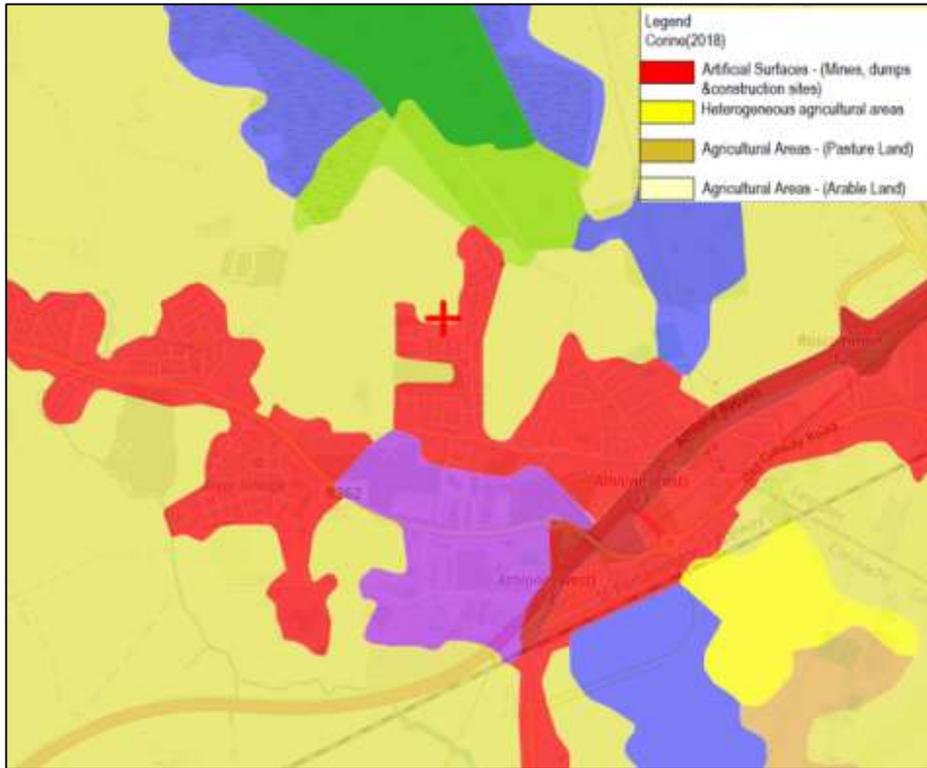


Figure 4.2: Groundwater Vulnerability

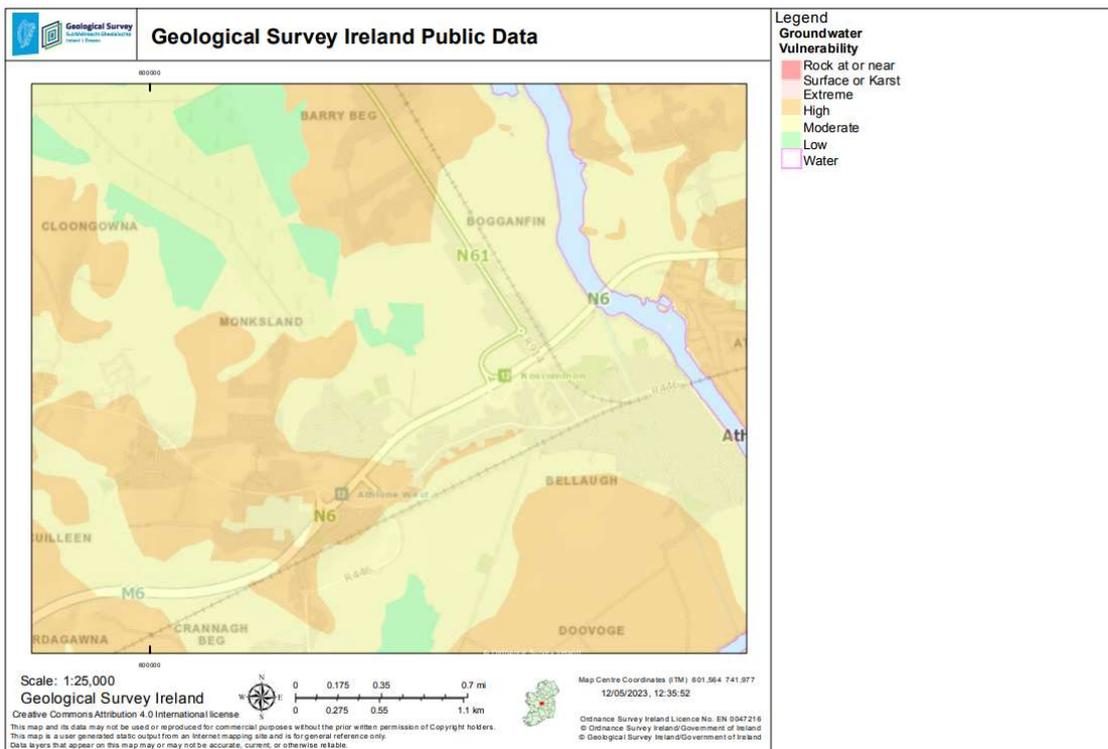


Figure 4.3: Teagasc Soils Cover

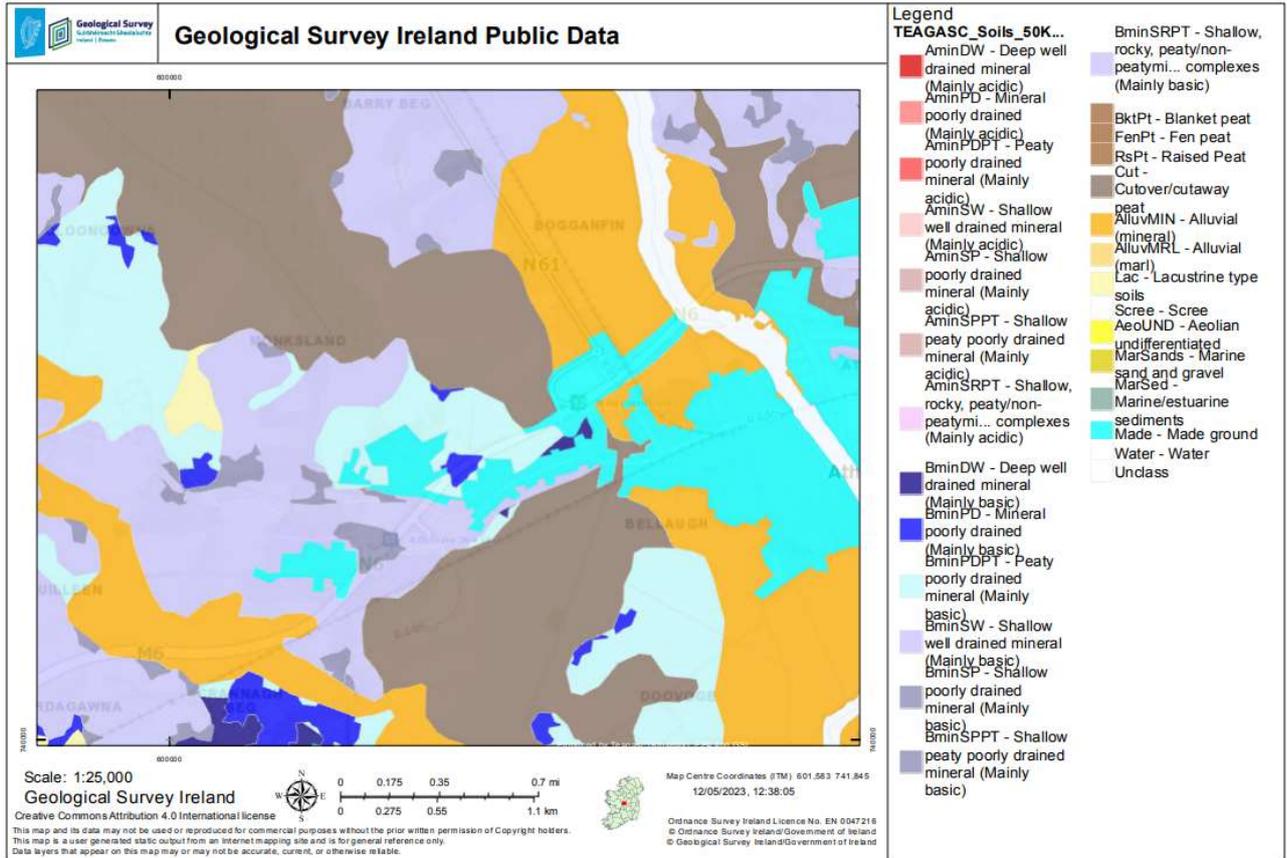


Figure 4.4: Quaternary Sediments

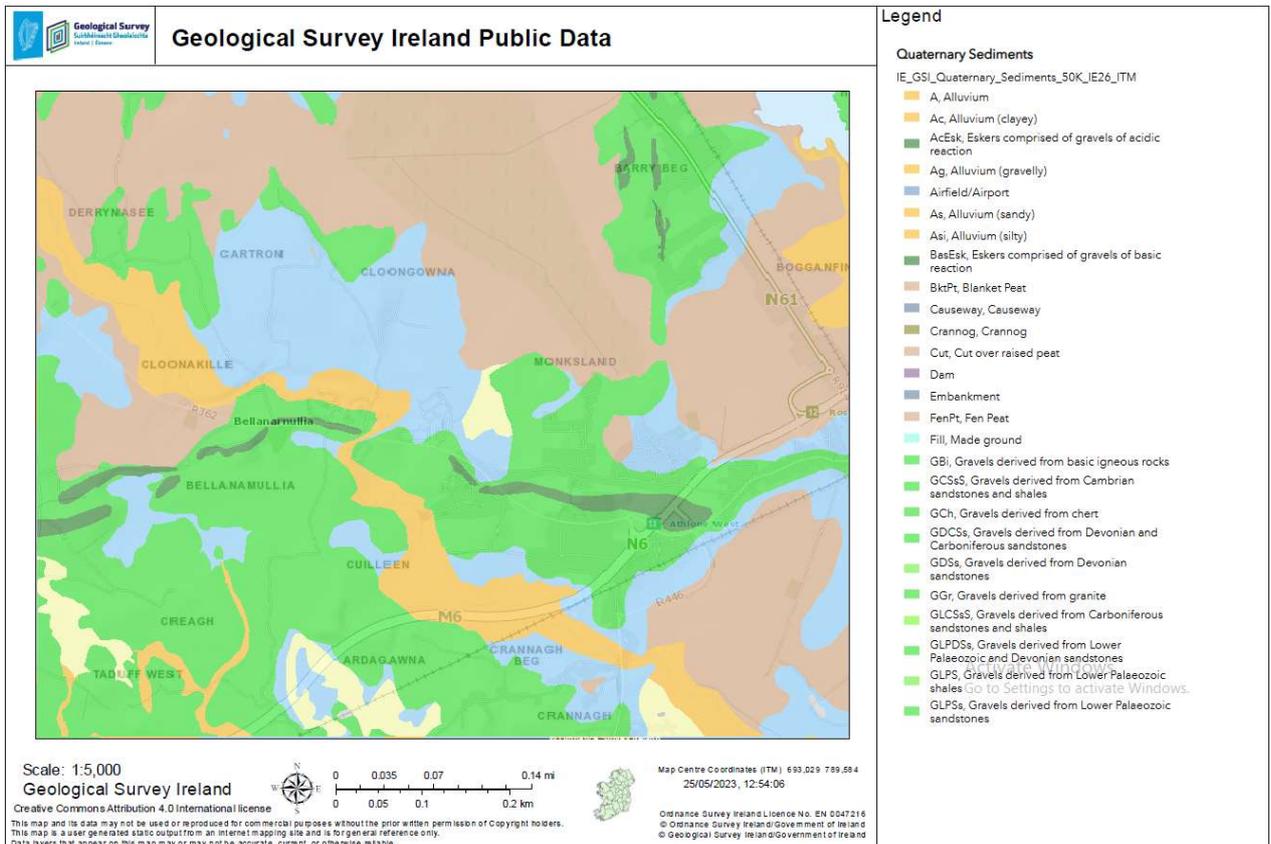


Figure 4.5: Bedrock Geology

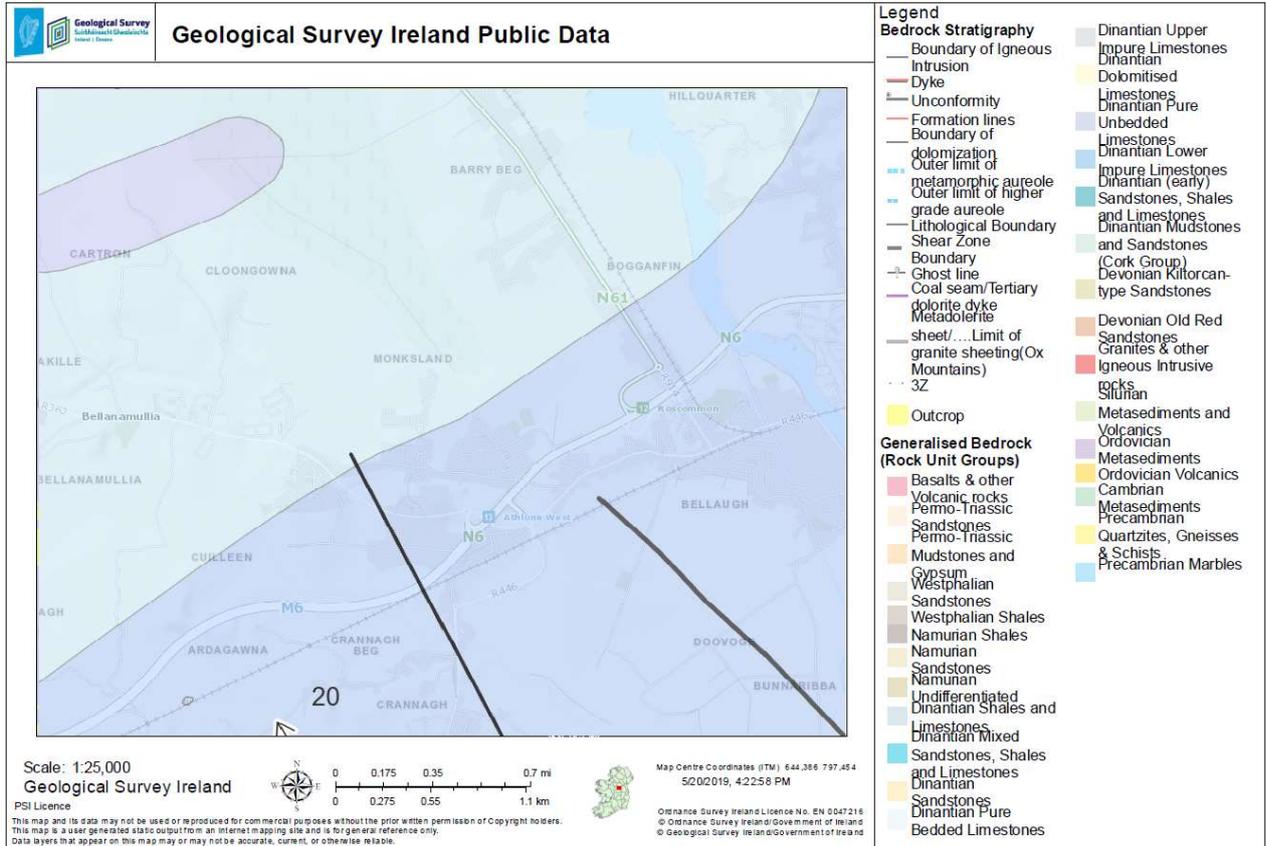
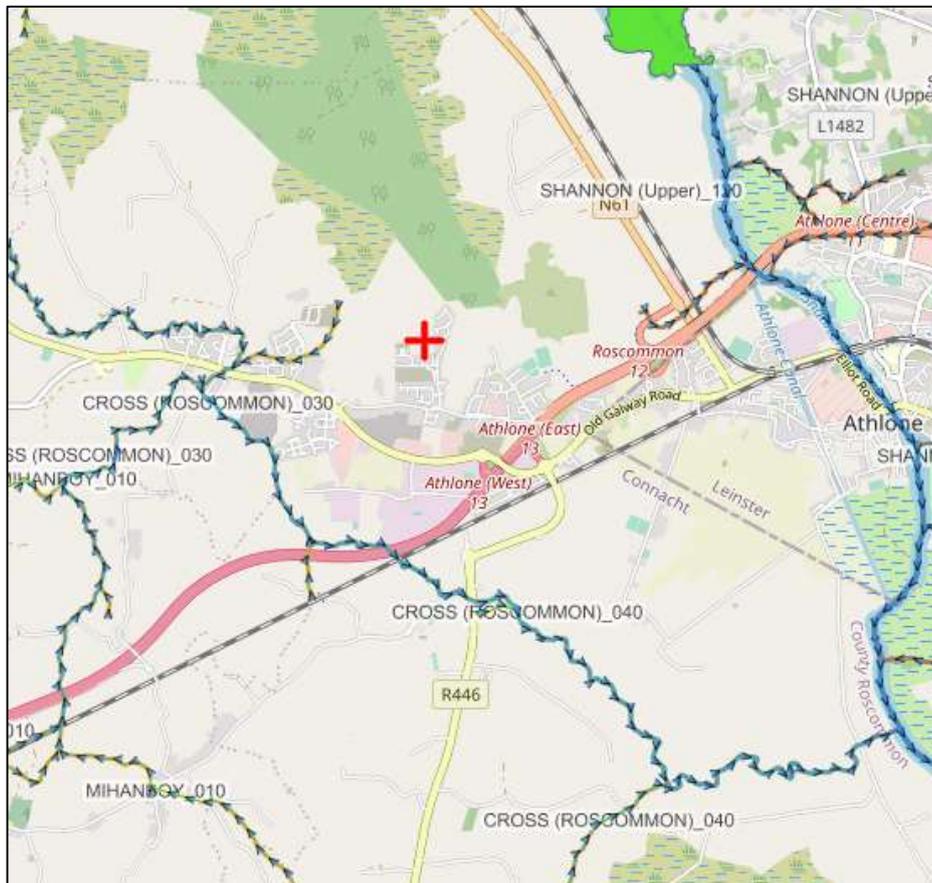


Figure 4.6. Hydrological Features of the Area (Site marked with +)



4.2.6 Hydrology

The WFD classification scheme for water quality includes five status classes: high, good, moderate, poor, and bad. 'High status' is defined as the biological, chemical, and morphological conditions associated with no or very low human pressure. This is also called the 'reference condition' as it is the best status achievable - the benchmark. The unnamed stream is approximately 730m west of the site. This stream continues to flow south until its confluence with the Cross River. The Cross River flows southeast until it enters the River Shannon.

4.2.7 Local Hydrology & Water Quality

The risk of the site contributing to offsite flooding or the sites vulnerability to flooding from the public drainage network is mitigated by the installation of SuDS measures. The predicted impact on land, soils, geology, hydrogeology, and hydrology during operation is considered to be neutral, imperceptible, and long term.

Flood Risk has been assessed by Traynor Environmental Ltd. and has concluded the following:

Examination of the Eastern CFRAM Maps available on www.floodinfo.ie reveals the predictive extent of flooding in the vicinity of the site (refer to Figure below). Anticipated flood extents are far removed from the site with no identifiable risks of fluvial or coastal flooding apparent from the maps. Flood extents associated with the Cross River are far removed from the site. The site is therefore considered not susceptible to flooding from exceedance in any direction.

4.2.8 Biodiversity

The potential ecological impacts of proposed development have been considered in terms of the sensitivity of the location through the AA Screening which will be submitted with the application.

4.3 ABSORPTION CAPACITY OF THE NATURAL ENVIRONMENT

The proposed development due to its size and localised nature will not have any effect on wetlands, riparian areas, river mouths, coastal zones, marine environments, mountain or forest areas, nature reserves, or densely populated areas. The development site is not located within or adjoining an Architectural or General Conservation Area and is not located within or adjoining a Native Woodland Trust and is not covered by protected views, scenic routes, or viewpoints.

5.0 TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS

This section sets out the likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2 (as set out in Sections 4 and 5 above), with regard to the impact of the project on the factors specified in paragraph (b) (i) (I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act (as amended).

The quality, magnitude and duration of potential impacts are defined in accordance with the criteria provided in the Guidelines on Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) this criterion is duplicated in Table 5.1.

Table 5.1 Description of Effects

Characteristic	Term	Description
Quality of Effects It is important to inform the non-specialist reader whether an effect is positive, negative, or neutral	Positive	A change which improves the quality of the environment (for example, by increasing species diversity, or 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	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).
Describing the Significance of Effects 'Significance' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful (also see Determining Significance).	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 Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
	Significant Effects	An effect, which by its character, magnitude, duration, or intensity alters a sensitive aspect of the environment.
	Very Significant	An effect which, by its character, magnitude, duration, or intensity significantly alters most of a sensitive aspect of the environment.
	Profound Effects	An effect which obliterates sensitive characteristics
Describing the Extent and Context of Effects Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly, or increasingly experienced.	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?)

<p>Describing the Probability of Effects</p> <p>Descriptions of effects should establish how likely it is that the predicted effects will occur so that the CA can take a view of the balance of risk over advantage when making a decision</p>	Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.

Characteristic	Term	Description
<p>Describing the Duration and Frequency of Effects</p> <p>Duration 'is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful.</p>	Momentary Effects	Effects lasting from seconds to minutes
	Brief Effects	Effects lasting less than a day
	Temporary Effects	Effects lasting less than a year
	Short-term Effects	Effects lasting one to seven years.
	Medium-term Effects	Effects lasting seven to fifteen years
	Long-term Effects	Effects lasting fifteen to sixty years
	Permanent Effects	Effects lasting over sixty years
	Reversible Effects	Effects that can be undone, for example through remediation or restoration
	Frequency of Effects	Describe how often the effect will occur. (Once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)

5.1 POPULATION AND HUMAN HEALTH

5.1.1 Construction Phase

The potential impacts of the proposed development on population human health and populations would be nuisances such increased air pollution (dust), noise, traffic, and visual impacts of the construction phase. The likely potential impact of the proposed development with respect to population and human health during the construction phase can be considered to be **negative, moderate to significant and short-term.**

The potentially significant short-term impacts (due to air pollution (dust), noise, traffic) during the construction phase will be mitigated in accordance with the implementation of a CEMP at construction stage, and through implementation of binding hours of construction.

The construction phase of the proposed development will provide for the temporary employment for construction workers which will provide benefits for local businesses providing retail or other services to construction workers and potential additional employment in the area.

The residual impact of the proposed development with respect to population human health during the construction phase after the implementation of mitigation measures set out in this report, is **negative, not significant, and short-term.**

Having regard to the foregoing, there is no real likelihood of significant effects on the environment arising from the proposed development in respect of population and human health impacts during the construction phase. Therefore, a requirement for subthreshold EIA does not arise.

5.1.2 Operational Phase

The proposed development will not result in any off-site exceedance of the relevant ambient air quality standards. The proposed development will not generate significant outward noise.

The design of the proposed development has due regard for the sensitivity of the surroundings and is not likely to adversely impact on local populations. The proposed development comprises a residential development which is not expected to significantly add to the current noise level of the surrounding environment.

The residual impact of the proposed development with respect to populations and human health during the operational phase is **positive, not significant, and long-term**. Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of population and human health impacts during the operational phase. Therefore, a requirement for subthreshold EIA does not arise.

5.2 LAND, SOILS, GEOLOGY, HYDROGEOLOGY, HYDROLOGY

5.2.1 Construction Phase

Potential for increased sediment and runoff from excavation, soil handling, removal, and compaction

Earthworks and excavations will be required for construction phase operations to facilitate the proposed development construction. This will include the excavation of soil and subsoils. The construction works will alter the current drainage regime from the site and the rate and volume of direct surface run-off. The potential impact of this is a possible increase in surface water run-off and sediment loading, which could potentially impact local drainage if not adequately mitigated.

Movement of material will be minimised to reduce the degradation of soil structure and generation of dust. Excavations will remain open for as little time as possible before the placement of fill. This will help to minimise the potential for water ingress into excavations.

The site preparation, excavations and levelling works required to facilitate construction of foundations and the installation of services will require excavation of soil, stones, and bedrock (if encountered). Soil will be kept onsite where possible, if any material is to be exported it needs to be brought off site by an approved collector or moved with the benefit of an Article 27 declaration of the European Communities (Waste Directive) Regulations 2011. Any material, which is exported from site, if not correctly managed or handled, could impact negatively on human beings (onsite and offsite) as well as water and soil environments.

In the event that soil is required to be taken off site, prior to removal, all excavated materials will be visually assessed for signs of possible contamination such as staining or strong odours. Should any unusual staining or odour be noticed, samples of this soil will be analysed for the presence of possible contaminants in order to ensure that historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be disposed of by a licensed waste disposal contractor.

Excavated soil will arise during the construction period and will be stored (if required) on site prior to being removed by a specialist contractor. A detailed Resource Waste Management Plan will be prepared at the design stage and followed at construction stage by the appointed contractor.

Stockpiles of soil and construction aggregate can have the potential to cause negative impacts on air and water quality. The effects of soil stripping and stockpiling will be mitigated through the implementation of appropriate earthworks handling protocol during construction. It is anticipated that any stockpiles will be formed within the boundary of the site and there will be no direct

link or pathway from this area to any surface water body. Overburden material will be protected from exposure to wind by storing the material in sheltered parts of the site, where possible.

In respect of the foregoing, and the measures set out in the project CEMP, the residual impact as a result of the potential for increased sediment and runoff from excavation works on, land, soils, geology, hydrogeology, and hydrology during construction is considered to be **negative, imperceptible, and short-term**.

Potential for contamination from Accidental Spills and Leaks

There is potential for water to become contaminated with pollutants associated with construction activity. Contaminated water which arises from construction sites can pose a significant short-term risk to water quality for the duration of the construction if contaminated water is allowed to percolate to the aquifer or accidental discharges into surface water.

Machinery activities on site during the construction phase may result in run-off of contaminated waters into surface water networks or ground water. Potential impacts could arise from accidental spillage of fuels, oils, paints, cement, etc. which could impact surface water if allowed to runoff into surface water systems and/or receiving watercourses or groundwaters.

The potential impacts during the construction phase are required to be mitigated by ensuring best practice construction with respect to storage of any hazardous substances (fuels, chemicals and other construction materials that may pose a risk to the environment). A CEMP will set out this best practice construction methodology to manage the risk of accidental spills and leaks.

In respect of the foregoing, and the implementation of a CEMP, the residual impact in respect of the potential for impacts related to contamination from accidental spills on, soils, geology, hydrogeology, and hydrology during construction is considered to be **negative, imperceptible, and short-term**.

Dewatering, Run-off, and Sediment Loading

There is the potential for contaminated surface water run-off from site preparation, levelling, landscape contouring and excavations during the construction phase may contain increased silt levels or become polluted from construction activities. Silt water can arise from excavations, exposed ground, stockpiles, and access roads. Construction water containing large amounts of silt or other contaminants such as hydrocarbons has the potential to cause negative, and short-term impacts receiving surface water bodies, or surface water networks, if not adequately mitigated.

The CEMP will detail measures to help ensure that the receiving surface water drainage network is sufficiently protected for the duration of the proposed works. Where dewatering is required during the construction phase, dirty water will be fully and appropriately attenuated, through silt bags, before being appropriately discharged to ensure that no silty or contaminated water from the construction works will be discharged to any stormwater network.

Having regard to the foregoing, there is no real likelihood of significant effects on the environment arising from the proposed development in respect of land, soils, geology, hydrogeology, and hydrology impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.2.2 Operational Phase

Direct and Indirect Discharges Management

Details on the management of foul and surface water from the site have been outlined in the accompanying Civil and Structural Engineering Report prepared by Alan Traynor Consulting Engineers Ltd.

Foul Drainage – Existing

There is no existing foul sewer network on site. There are two existing Irish Water networks located on either side of the site serving the existing housing development. There is an existing pumping station serving the housing development to the west of the site.

Foul Drainage – Proposed

It is proposed to collect all foul discharge from the proposed development using a suitably sized network and discharge to the existing combined sewer located to the South of the site in Sli An Choiste Rd. A Pre-connection application was lodged with Irish Water and a confirmation of feasibility received. (IW Ref CDS23002229.). Please refer to drawing 23-004-100 for the foul sewer layout,

Surface Water Disposal & SuDS Measures

Methods for surface water disposal within the development using Sustainable Urban Drainage Systems (SUDS) methods i.e., re-use and/or direct infiltration to the sub-soils, have been explored and proposed where possible.

A comprehensive evaluation of the site for the implementation of various SuDS methods has been carried out. As part of the current proposals, a geotechnical site investigation was undertaken to establish the suitability of the sub-soils for direct infiltration of rainwater.

Surface Water Drainage – Existing

There is no existing drainage within the site. There is an existing storm networks serving the neighbouring housing developments. One network located at the southeast corner of the site close to the proposed entrance and one network located to the west of the site.

Surface Water Drainage – Proposed

It is proposed to divide the storm sewer network into two areas which will have two separate discharge points. This is due to the topography of the site. We propose to use gullies and a suitably sized network to collect all run-off from the access road and car parking spaces. Gullies and downpipes will be used to collect all run-off from dwelling roofs and proposed private hardstand areas. Run-off from all hardstand areas will pass through a petrol interceptor prior to flowing through a hydrobrake. This hydrobrake will limit the discharge from the site to a value of 5l/s. The Q-bar value was calculated using the UKsuds website. As recommended when the Qbar value is calculated at less than 5l/s the restricted value shall be set at 5l/s to prevent buildup of vegetation in pipework. During storm events all excess flow on the east side (Area 1) of the site will be attenuated by a new 212.38m³ stormtech tank located in the green area to the east of the site. Excess flow on the west side (Area 2) of the site will be attenuated by a new 211.76m³ stormtech tank located in the green area in the centre of area 2. Please refer to drawing 23-004-100 for the storm sewer layout.

External Pavements

External pavements (in situ concrete, block paving and flexible pavements) shall be installed in accordance with Department of Environment and Local Government Publication "Recommendations for Site Development Works for Housing Areas." External pavement to be constructed on minimum 225mm sub-base on 350mm capping with 1 layer of 30kN geogrid over a non-woven separating geotextile placed on soft deposits is recommended within external pavement construction to mitigate against the risk settlement.

Conclusions

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of land, soil, geological, hydrogeological, and hydrological impacts during the construction and operational phases. Therefore, a requirement for sub-threshold EIA does not arise.

5.3 BIODIVERSITY

5.3.1 Construction Phase

5.3.2 Operational Phase

The accompanying Appropriate Assessment Screening has assessed the potential for significant impacts of the operational phases of the proposed development on Natura 2000 sites and habitat loss/alteration, habitat/species fragmentation, disturbance and/or displacement of species, change in population density and changes in water quality.

With the implementation of the prescribed mitigation measures, the proposed development will not give rise to significant impacts, either individually or in combination with other plans and projects, in a manner that adversely affects the integrity of any designated site within the Natura 2000 network.

Having regard to the foregoing, there is no real likelihood of significant effects on the environment arising from the proposed development in respect of biodiversity impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise. It can be concluded objectively it is not necessary to proceed to Stage 2 of the Appropriate Assessment process and the preparation of a Natura Impact Statement is not required. There will be no impacts upon the integrity, or the conservation objectives of the Natura 2000 sites identified. The habitats and species associated with this site will not be adversely affected.

5.4 AIR QUALITY AND CLIMATE

Air Quality

The Air Quality Standards (AQS) Regulations describe the air quality zoning adopted in Ireland as follows:

- Zone A (Dublin Conurbation)
- Zone B (Cork Conurbation)
- Zone C (16 Cities and Towns with population greater than 15,000); and
- Zone D (Rural Ireland: areas not in Zone A, B and C).

The proposed development is in Zone C. The annual mean background levels of NO₂, NO_x, PM_{2.5}, PM₁₀ and Carbon Monoxide from EPA monitoring undertaken from 2019 – 2021, are presented in table 5.3. Concentrations of each pollutant recorded in Zone C are averaged to represent typical background levels. In accordance with AQS, the average concentrations obtained from all stations complied with 90% data capture.

Table 5.3 Annual Mean Background Concentrations for Zone C

Years	Annual Average NO ₂ (µg/m ³)	Annual Average NO _x (µg/m ³)	Annual Average PM ₁₀ (µg/m ³)	Annual Average PM _{2.5} (µg/m ³)	8-hour Average CO (µg/m ³)
2021	11.56	22.725	12.1	9.2	0.25
2020	11.14	21.628	16.0	12.0	0.2
2019	12.0	25.43	17.0	14.0	0.1

The EPA manages the National Ambient Air Quality Network. This network sets legislative limits and target values for the protection of human health and vegetation. Air quality in Ireland is generally good, however, there are concerning localised issues that are impacting negatively on the air we breathe. Air quality monitoring results showed that fine particulate matter (PM_{2.5}) mainly from burning solid fuel in our homes, and nitrogen dioxide (NO₂) mainly from road transport, remain the main threats to good air quality. EPA monitoring shows that PM_{2.5}, PM₁₀, CO and NO₂ levels are within the current EU legal limits and the World Health Organisation (WHO) Air Quality guidelines (AQGs) for health.

5.4.1 Construction Phase

Construction stage traffic and embodied energy of construction materials are expected to be the dominant source of greenhouse gas emissions as a result of the construction phase of the development. Construction vehicles, generators etc., may give rise to some CO₂ and N₂O emissions. However, due to the short-term nature of these works, the impact on climate will be **not significant, and short term**.

Nevertheless, some site-specific mitigation measures can be implemented during the construction phase of the proposed development to ensure emissions are reduced further. In particular the prevention of on-site or delivery vehicles from leaving engines idling, even over short periods. Minimising waste of materials due to poor timing or over ordering on site will aid to minimise the embodied carbon footprint of the site.

The greatest potential impact on air quality during the construction phase of the proposed development is from construction dust emissions and the potential for nuisance dust and PM₁₀/PM_{2.5} emissions. While construction dust tends to be deposited within 350 m of a construction site, the majority of the deposition occurs within the first 50 m based on Transport Infrastructure Ireland (TII) guidance (2011).

The scheme has potential for dust impacts during construction due to the separation distance between the site and the nearest sensitive receptors. Therefore, during construction, there is potential for dust impacts on these sensitive receptors which would be considered in the absence of mitigation **negative, significant, and short-term**.

The pro-active control of fugitive dust will ensure the prevention of significant emissions, rather than an inefficient attempt to control them once they have been released. The main contractor will be responsible for the coordination, implementation and ongoing monitoring of the dust minimisation measures. The key aspects of controlling dust are listed below. These measures will be incorporated into the Construction Environmental Management Plan (CEMP) prepared for the site. A detailed CEMP will be prepared and followed at construction stage by the appointed contractor.

In summary the measures which will be implemented will include: (Make sure the below are the same as the CEMP)

- During very dry periods when dust generation is likely, construction areas will be sprayed with water.
- Exhaust emissions from vehicles operating within the site, including trucks, excavators, diesel generators or other plant equipment, will be controlled by the contractor through regular servicing of machinery.
- Vehicle speeds will be limited in the construction site.
- The surrounding roads used by trucks to access and egress from the site will be cleaned regularly using an approved mechanical road sweeper. Roads will be cleaned subject to local authority requirements. Site roads will be cleaned on a daily basis, or more regularly, as required.
- Wheel-wash facilities will be provided to remove excess mud from wheels. These facilities will be located at the exit from the site and away from sensitive receptors, where possible.
- The technique adopted for all works shall minimise the release of dust into the atmosphere.
- Daily visual inspections will be carried out at locations around the site boundary as required.
- These inspections will monitor the effectiveness of dust mitigation measures.

In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust would be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations. The residual effects on air quality and climate will be **moderate, negative, short term** during the construction phase. Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of air quality and climate impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.4.2 Operational Phase

In relation to the operational phase of the proposed development, the proposed development will not result in any significant emissions of air quality pollutants or greenhouse gases once operational. Therefore, the potential impact to air quality from the operational phase of the proposed development is expected to be imperceptible.

Therefore, no site-specific mitigation measures are required. Current EPA guidance states that a development may have an influence on global climate where it represents "a significant proportion of the national contribution to greenhouse gases" (EPA, 2003). The "Guidelines on The Information to Be Contained in Environmental Impact Assessment Reports" (2022) states that impacts relevant to adaptation to climate change should be assessed and that projects should be assessed in terms of their vulnerability to climate change.

Therefore, the impact to climate from the operational phase of the proposed Project is expected to be imperceptible in terms of national CO₂ emissions and Ireland's agreed limit under the Kyoto Protocol (Framework Convention on Climate Change, 1997, 1999) and the EU Effort Sharing Agreement ("20-20-20" Targets).

The proposed Project will not result in any impacts relevant to adaptation therefore the project will not be vulnerable to climate change. Based on the above the potential effects on Air Quality are **neutral, imperceptible, and short term** for the operational phase. Therefore, the residual impact of the proposed Project on ambient air quality is deemed to be imperceptible.

Having regard to the foregoing, there is no real likelihood of significant effects on the environment arising from the proposed development in respect of air quality and climate impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.5 NOISE AND VIBRATION

5.5.1 Construction Phase

During the construction phase there is potential for temporary impacts on the nearest residential properties due to noise emissions from the plant equipment required for construction. The magnitude of noise generated will be dependent on several factors including the proximity of noise sensitive receptors, construction methods employed, the selection of plant and construction programming. A variety of items of construction methods and plant items will be required during the various phases of the construction project. Noise will be generated primarily from the onsite construction activity however noise can be generated during haulage of construction and waste materials to and from site.

The potential for noise and vibration effects in the absence of mitigation can be characterised as negative, **moderate to significant, and short term** for the construction phase.

There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project. The application of avoidance measures, such as binding hours of construction, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact will not be excessively intrusive. Any impacts will be short term in duration for the construction phase. The CEMP will set out minimisation measures to ensure nuisance noise arising from site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development.

The relevant mitigation measures are set out below:

- Hours will be limited during which noisy site activities are permitted. No work to be carried out on a Sunday or bank holiday.
- Channels of communication will be established between the Contractor/Developer, Local Authority and Residents.
- A Site Representative will be appointed responsible for matters relating to noise.
- Typical levels of noise will be monitored during critical periods and at sensitive locations.
- Plant will be selected with low inherent potential for the generation of noise.

- All site roads will be kept even so as to mitigate the potential for vibration from lorries.
- Barriers will be erected as necessary around items such as generators or heavy-duty compressors.
- Noisy plant will be sited as far away from sensitive properties as permitted by site constraints.
- Engines, vehicles, and equipment will be switched off when not in use.
- Significant sources of noise will be enclosed.
- Plant will be used and serviced regularly in accordance with manufacturer's instructions.
- Cranes will be shut down during work periods / throttled to a minimum when not in use.
- Machinery having rotating parts will be serviced according to supplier recommendations to prevent friction induced sound.
- Materials should be lowered, not dropped, as far as practicable and safe.

All personnel must be made aware that noisy construction activities resulting in significant noise levels must be minimised and made aware of the above control measures. During the construction stage the following codes and regulations will be adhered to:

- BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites, Part 1, and Part 2.
- SHWW (General Application) Regulations 2007 – 2016, Part 5 Noise and Vibration

Noise and vibration effects on the environment following the implementation of standard construction mitigation measures, as set out in the CEMP, the residual impact can be characterised as **negative, slight to moderate, and short term** for the construction phase.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of noise and vibration impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.5.2 Operational Phase

The proposed development will give rise to additional road traffic on public roads. Additional traffic from residential developments can give rise to slight to moderate impacts in respect of noise.

The residual effects on noise and vibration are **neutral, imperceptible, and short term** for the operational phase.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of noise and vibration impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.6 LANDSCAPE AND VISUAL IMPACT

5.6.1 Construction Phase

The construction works of use of the site from that of a greenfield area to that of a construction site, will give rise to short term and substantially localised effects on landscape character. This effect will be seen through the introduction of new residential units, machinery, ancillary works, and associated hoarding, etc. Measures will be undertaken to mitigate any potentially adverse construction-related effects on immediately adjoining neighbours, particularly on the residents, and agricultural practices on the adjacent lands. Operation of a well-managed organised and planned construction site, with adequate control of construction traffic and working activity, will be undertaken which is key to avoiding and minimising impact.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of landscape and visual impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.6.2 Operational Phase

The proposed development is consistent with the land use zoning designation. In keeping with this context, the proposed development, once complete should integrate visually with the existing landscape and the newly planted trees and shrubs should develop and anchor the development in its surrounds and will not give rise to any significant landscape and visual effects. The design and layout of the proposed development is appropriate in terms of the existing site character, zoning, and context.

The residual impact on landscape and visual impact during construction will be long term, and range from **imperceptible to moderate, neutral to positive**.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of landscape and visual impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.7 CULTURAL HERITAGE, AND ARCHAEOLOGY

5.7.1 Construction Phase

The Record of Monuments and Places (RMP) and the Sites and Monuments Record (SMR) do not record any monuments, findspots or events associated within the development site. The closest RMP monuments is 1.2km west of the site described as 'On a NE-facing slope. This is a coarse limestone upright (dims 0.9-0.95m WNW-ESE; 0.65-0.7m NE-SW; max. H 1.5m) with a blunt pointed top'.

The proposed development works will be **neutral, imperceptible, and short term**.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of cultural heritage and archaeological impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.7.2 Operational Phase

The operational phase of the proposed development is not predicted to have any impact on archaeological, architectural, and cultural heritage.

In this regard any impacts upon cultural heritage and archaeological are **neutral, imperceptible, and long term**.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of cultural heritage and archaeological impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.8 TRAFFIC AND TRANSPORTATION

5.8.1 Construction Phase

During the construction phase of the proposed development, there will be additional traffic movements to/from the site from construction personnel, security staff, professional staff (i.e., design team, utility companies), excavation plant, dumper trucks and deliveries/removal of materials (waste/spoil). In order to transport construction material to the site in the most efficient and environmentally sensitive manner appropriate routes need to be identified. Having considered the site location, it is proposed vehicular access will be via the existing site entrance to the east of the site.

It is not expected that the proposals will result in a material deterioration of existing road conditions.

After the implementation of mitigation measures the potential impact on Traffic and Transportation are **negative, short term and not significant** for the construction phase.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of traffic and transportation impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.8.2 Operational Phase

The proposed scheme will see an increased level of traffic coming to and from the site when compared to the existing situation. It is proposed that all vehicular access be via the existing entrance to the east. The potential impact on Traffic and Transportation during the operational phase are **negative, long term and not significant** for the operational phase.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of traffic and transportation impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.9 MATERIAL ASSETS, INCLUDING WASTE MANAGEMENT

The proposed development will have an impact upon other material assets such as 'built services and infrastructure such as electricity, telecommunications, gas, and water supply.

5.9.1 Construction Phase

Utilities

Welfare facilities (canteens, toilets etc.) will be available within the construction compound and this will remain in place for the construction of the proposed development. The main contractor will ensure that sufficient facilities are always available to accommodate the number of employees on site. The offices and site amenities will initially need to have their own power supply (generator), water deliveries and foul water collection until connections are made to the new foul treatment system prior to discharge to the existing combined sewer located to the South of the site in Sli An Choiste Rd.

Electrical connections will be made by suitably qualified personnel following consultation with the relevant authorities and will be cognisant of subsequent construction works. High voltage connections will be established for heavy duty equipment and site facilities, as required. All electrical work, including connection to the ESB network will be carried out by a suitably qualified contractor. The power and electrical supply requirements during construction are relatively minor, and there is no potential impact anticipated on existing users.

Water supply required for welfare facilities, dust suppression and general construction activities will be sourced from the existing public supplies. As with electrical works, this will be carried out by a suitably qualified contractor. It will be necessary to service the site with a reliable and safe water supply.

In respect of the foregoing, the predicted impacts upon material assets (utilities) are considered to be **neutral, imperceptible**, and **short term**.

Waste and Waste Management

There will be some waste materials produced in the construction of the proposed scheme which will be disposed of using licensed waste disposal facilities and contractors. The scale of the waste production in conjunction with the use of licensed waste disposal facilities and contractors does not cause concern for likely significant effects on the environment.

A RWMP will be prepared and followed at construction stage by the appointed contractor.

The plan will set out the measures used is to maximise the quantity of waste recycled by providing sufficient waste recycling infrastructure, waste reduction initiatives and waste collection and waste management information to the residents of the development.

Other than waste generated from materials necessary for the construction of the building the proposed development will not produce significant volumes of waste.

All waste arising during the construction phase will be managed and disposed of in a way that ensures compliance with the Waste Management Act 1996 as amended and associated amendments and regulations and the Waste Management Plan. In the event, there is excess material with no defined purpose, it will be transported to an authorised soil recovery site or notified to the EPA as a by-product when it will be beneficially used.

It is considered that the proposed development will not have any significant impact in terms of resources or waste generation.

A carefully planned approach to waste management will ensure that the impact on the environment will be **short-term, neutral, and imperceptible**.

Conclusion

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of material asset impacts during the construction phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.9.2 Operational Phase

Utilities: Foul Sewer, Stormwater and Potable Water

It is proposed to collect all foul discharge from the proposed development using a suitably sized network and discharge to the existing combined sewer located to the South of the site in Sli An Choiste Rd. A Pre-connection application was lodged with Irish Water and a confirmation of feasibility received. (IW Ref CDS23002229.).

It is proposed to divide the storm sewer network into two areas which will have two separate discharge points. This is due to the topography of the site. We propose to use gullies and a suitably sized network to collect all run-off from the access road and car parking spaces. Gullies and downpipes will be used to collect all run-off from dwelling roofs and proposed private hardstand areas. Run-off from all hardstand areas will pass through a petrol interceptor prior to flowing through a hydrobrake. This hydrobrake will limit the discharge from the site to a value of 5l/s. The Q-bar value was calculated using the UKsuds website. As recommended when the Qbar value is calculated at less than 5l/s the restricted value shall be set at 5l/s to prevent buildup of vegetation in pipework. During storm events all excess flow on the east side (Area 1) of the site will be attenuated by a new 212.38m³ stormtech tank located in the green area to the east of the site. Excess flow on the west side (Area 2) of the site will be attenuated by a new 211.76m³ stormtech tank located in the green area in the centre of area 2.

It is proposed to make a connection to the existing 225mm water main located in Sli An Choiste Rd. A new 100mm SDR17 watermain will be brought into the site as a loop formed. There will be a connection to each dwelling. An Irish water boundary box will be installed on each connection. A Pre-connection application was lodged with Irish Water and a confirmation of feasibility received. (IW Ref CDS23002229).

The proposal will have an impact on servicing and utilities infrastructure in the area, requiring connections to water, electricity, supplies, as well as connecting to the existing road network. Due to the location of the site, the development is well placed to benefit from in-situ infrastructure provision and will therefore constitute a sustainable use at the location.

In respect of the foregoing, the predicted impacts upon foul sewer, stormwater and potable water are considered to be **neutral, imperceptible, and long term**.

Waste and Waste Management

The proposed development will give rise to a variety of waste streams during the operational phase, i.e., when the project is completed, and fully operational. Most of the waste will be generated by the residents during the fully operational stage.

During the operational phase, a structured approach to waste management as set out will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of waste prevention, reuse, recycling, and recovery is achieved, the predicted impact of the operational phase on the environment will be **long-term, neutral, and imperceptible**.

Conclusion

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of material asset impacts during the operational phase. Therefore, a requirement for sub-threshold EIA does not arise.

5.10 POTENTIAL IMPACTS FROM INTERACTIONS

This section discusses the potential interactions and inter-relationships between the environmental factors discussed in the preceding sections. This section covers both the construction and operational phase of the proposed development.

In accordance with the guidance not only are the individual significant impacts required to be considered when assessing the impact of a development on the environment, but so must the interrelationships between these factors be identified and assessed. The majority of the interactions that are considered to have a neutral effect (i.e., no effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error).

There is a potential interaction between land, soil geology, hydrogeology and hydrology, and biodiversity due to the potential for poorly managed surface water run-off during the construction phase of the proposed development. There is a potential for interactions between air quality during construction activities on human health via dust generation. There is a potential for interactions between noise and vibration during construction activities on human health. However, these potential interactions are short-term and associated with the construction phase.

During the operational phase, there is a potential interaction between land, soil geology, hydrogeology and hydrology, and biodiversity due to the potential for poorly managed surface water run-off, and foul water discharge during the operational phase of the proposed development. The designed Drainage will ensure that this interaction is neutral, and not significant.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development in respect of interactions between environmental factors during the construction or operational phases. Therefore, a requirement for sub-threshold EIA does not arise.

5.11 POTENTIAL CUMULATIVE IMPACTS

As part of the assessment of the proposed development, the likelihood of potential cumulative impact of the proposed development has been considered with any future development (as far as practically possible) and the cumulative impacts with developments in the locality (including planned and permitted developments).

This list of significant consented development is shown in Table 5.3. The review did not cover insignificant small extensions/applications, changes of use, retention, and other minor alterations in the vicinity of the proposed development. These proposed and consented development have been, where relevant, considered as a part of the overall project impact.

Cumulative impacts are those impacts that relate to incremental / additive impacts of the planned development in addition to historical, present, or foreseeable future actions. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

Each project currently permitted in the wider area is subject to planning conditions which include appropriate mitigation measures to minimise environmental impacts. Provided that mitigation measures for other developments are implemented as permitted, there will be no significant cumulative effects.

There is potential for significant cumulative effects, in respect of traffic, noise and dust during a simultaneous construction phase, and traffic impacts during the operational phase with the permitted development. There has been one planning application granted in the last 2 years within 500m of the site.

Any future development will be required to incorporate appropriate mitigation measures (e.g., noise management, dust management, traffic management, management of water quality in run-off water, landscape, etc) during the construction phase as such any cumulative development will not have a significant effect on human health, material assets, land, soils, geology, hydrogeology, and hydrology.

Any future development proposed on the surrounding lands should be cognisant with the zoning and will be subject to EIA and/or planning conditions which include appropriate mitigation measures to minimise environmental impacts.

Having regard to the foregoing, there is no likelihood of significant effects on the environment arising from the proposed development and the surrounding developments being constructed concurrently in respect of cumulative impacts during the construction or operational phases. Therefore, a requirement for sub-threshold EIA does not arise.

6.0 FINDINGS AND CONCLUSIONS

The purpose of this EIA Screening Report has been to consider whether there is a requirement for the preparation of an Environmental Impact Assessment Report (EIA) with the information required under Schedule 7A of the Planning and Development Regulations 2001, as amended, to enable the competent authority to determine in light of the criteria set out under Schedule 7 of those regulations whether the proposed development is likely to have significant effects on the environment.

The proposed development and component parts have been considered against the thresholds outlined in Schedule 5, Part 2 Class 10 (a) to (m). The most relevant project type in the context of the proposed development is Class 10 (b) (i) and (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 a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.*

On the basis of the evaluation set out in Section 2.0 an EIA for the proposed Project is not mandatory. The proposed project is considered to be a sub-threshold development and therefore, the competent authority is required to assess whether the proposed development is likely to have significant effects on the environment in order to determine whether the submission of an EIA is required. The information necessary to enable this screening assessment has been provided in this report and the methodology used has been informed by the available guidance, legislation, and directives.

Traynor Environmental Ltd has considered the proposed development and assessed the potential for significant environmental effects and the need for an EIA is documented in Sections 3.0, 4.0 and 5.0.

It is concluded having regard to the nature, scale, and location of the subject site, that there is no likelihood of significant effects as a result of the proposed development on the environment (direct, indirect, or cumulatively with other development) and therefore it is considered that an Environmental Impact Assessment Report (EIA) is not required in this instance.