

2.0 INTRODUCTION TO PROJECT AND LEGISLATIVE CONTEXT

2.1 Legislative Background

The EIA Directive, Council Directive 85/337/EEC of 1985 was first introduced into Irish law by the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349 of 1989) which amended the Local Government (Planning and Development) Act 1963. The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 transpose the requirements of the 2014 EIA Directive into existing planning consent procedures.

An Environmental Impact Assessment Report (EIAR) is an important tool used to determine the possible effects of new projects on the environment and where impacts are predicted to minimise these through appropriate mitigating measures. The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 define an EIAR as –

“a report of the effects, if any, which proposed development, if carried out, would have on the environment and shall include the information specified in Annex IV of the Environmental Impact Assessment Directive”.

The fundamental principles to be followed when preparing an EIAR are outlined by the EPA¹ as:

- Anticipating, avoiding and reducing significant effects
- Assessing and mitigating effects
- Maintaining objectivity
- Ensuring clarity and quality
- Providing relevant information to decision makers
- Facilitating better consultation

This EIAR consists of a systematic analysis and assessment of the potential effects of a proposed project on the receiving environment. This EIAR is prepared in accordance with the Planning and Development Act (2000) (As Amended) and Planning and Development Regulations (2001) (As Amended). The EIAR is also informed by the EPA documents ‘Advice on Current Practice (in the preparation of Environmental Impact Statements) (EPA, 2003), ‘Draft Advice Notes for preparing Environmental Impact Statements (EPA, September 2015) ‘Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, August 2017) as well as ‘Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment’ (Department of Housing, Planning and Local Government, 2018). The following documents were also referred to in the preparation of this document- Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development (Department of Environment, Heritage and Local Government, 2003) and ‘Environmental Impact Assessment of Projects-Guidance on the preparation of the environmental impact assessment report (EU,2017). As required under Section 94 (d) of the 2000 Act, this EIAR

¹ EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports – Draft 2017

contains a reference list detailing the sources used for the descriptions and assessments included in this Report at the end of each chapter.

2.2 Need for Environmental Impact Assessment

Schedule 5 of the Planning and Development Regulations 2001 as amended, contains the prescribed classes of development that require an environmental impact assessment. Environmental Impact Assessment is required under Schedule 5 Part 2 (10) (b) (iv) for-

“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”

The application site has a site area of c.14.3 hectares with a net development area of 10.8 hectares. Therefore the proposed Strategic Housing Development of 358no. dwellings, crèche and neighbourhood centre has undergone EIA.

2.3 Content of Environmental Impact Assessment

Scoping is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information (EPA, 2017). Scoping is defined in EC guidance² as-

“determining the context and extend of the matters which should be covered in the environmental information to be submitted in the EIAR”.

The amended EIA Directive prescribes a range of environmental factors which are used to organise descriptions of the environment and these factors must be addressed in the EIAR. The minimum information to be provided by a developer is set out at Article 5 (1) and Annex IV. This information is contained in Schedule 6 of the Planning and Development Regulations 2001 (as amended). This EIAR has been prepared in line with Schedule 6. In this context the environmental factors assessed are-

- Population and human health,
- Biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives,
- Land, Soil, Water, Air and Climate,
- Material Assets, Cultural Heritage including archaeological aspects, and
- The Landscape.
- The interaction between the above listed environmental factors

A non-technical summary of the information required under Schedule 6 forms Chapter 1 of this EIAR.

² Guidance on EIA Scoping, EC,2001

This EIAR focusses on the likely significant effects on the environment. The assessment of direct and indirect effects includes those derived from the vulnerability of the proposed development to risks of major accidents and disasters that are relevant to the proposed project.

Effects are not considered in isolation but also in terms of their interrelationship and cumulatively. The Directive³ requires that that EIA describes the cumulation of effects. Cumulative effects may arise from:

- The interaction between the various impacts with a single project
- The interaction between all of the different existing and/or approved projects in the same area as the proposed project.
- This EIAR takes into consideration the permitted Part 8 residential development to the north of the site and the assessment of potential traffic impact has undergone sensitivity analysis for the entire Nodal Masterplan area.

This EIAR includes description of the reasonable alternatives studied by the developer and the main reasons for the option chosen.

According to EPA Guidance⁴, the scoping process should consider any other assessments that may address some types of effects that apply to a project and reduce coverage of these issues in an EIAR accordingly. The following additional assessments have been undertaken and are available under separate cover. Where relevant, these studies are referred to within the text of this EIAR e.g. within the context of mitigation measures.

- Traffic and Transportation Impact Assessment
- COMAH Land Use Planning Assessment
- Appropriate Assessment Screening & Natural Impact Statement
- Archaeological Testing
- Tree and Hedgerow Survey
- Flood Risk Assessment

2.3.1 Climate Change

The Directive 2014/52/EU recognises that climate change will continue to cause damage to the environment and compromise economic development. In this regard, it is appropriate to assess the impact of projects on climate and their vulnerability to climate change.

Annex IV of the EIA Directive includes direct reference to climate and climate change in two provisions. The emphasis is placed on two distinct aspects of the climate change issued-

³ Annex IV, point 5(e) of the Directive and Schedule 6 (2)(e)(i)(V) to the Regulations

⁴ Guidelines on the Information to be contained in EIAR (Draft, August 2017)

- Climate change mitigation – this considers the impact the Project will have on climate change, through greenhouse gas emissions primarily;
- Climate change adaptations – this considers the vulnerability of the Project to future changes in the climate, and its capacity to adapt to the impacts of climate change, which may be uncertain.

The provisions of the EIA Directive as transposed into the Planning and Development Regulations 2001 (as amended) require an Environmental Impact Assessment Report to contain information in relation to *“The impact of the proposed development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the proposed development to climate change”* (Schedule 6 (2), (e), (VI)).

The potential impacts of the proposed project relating to climate change have been considered in the Environmental Impact Assessment of environmental factors contained in this EIAR. This includes-

- The potential impact of the project on climate change through greenhouse gas emissions as assessed at Chapter 8 of this EIAR. This assessment concludes that due to the scale and nature of the construction activities CO₂ and N₂O emissions during construction will have an imperceptible and short-term impact on climate. The results of the air dispersion modelling study indicated that the residential impacts of the proposed development on climate at operational phase is predicted to be imperceptible and long term.

The vulnerability of the Project to future changes in the climate, and its capacity to adapt to the impacts of climate change has also been considered as follows-

- A Site-specific Flood Risk Assessment has been prepared as part of this planning application by DBFL Consulting Engineers and provided under separate cover. The SSFRA concludes that the proposed development is suitably located in Flood Zone C and is considered to have the required level of flood protection up to and including the 1% AEP flood event.
- The site’s surface water management infrastructure has been designed in accordance with the Greater Dublin Strategic Drainage Study which requires climatic change factors to be applied to drainage design.
- Sustainable Urban Drainage Systems have been applied to the proposed development that take account of the 1 in 100 year event
- It is proposed for this development to include possible heat pumps or exhaust air heat pumps throughout the development as these systems operate with very high efficiency which provides significant carbon reductions in comparison to a traditional boiler system. The use of photovoltaic panels may also be implemented throughout the development to heat hot water and aid the electricity supply. The use of Compact Fluorescent Lamps (CFLs) or LED lamps will also be incorporated into the design of this development using 80% less electricity and last up to 10 times longer than an ordinary light bulb. There will be EV charging points throughout the development with 294 bicycle parking spaces proposed for the apartments, neighbourhood centre and crèche together with improvements to Clonminch Road to encourage sustainable travel modes. All of these measures are aimed to lower the developments BER and help minimise its carbon footprint.

2.4 Structure of Environmental Impact Assessment Report (EIAR)

The structure of this EIAR has regard to the information required by legislation as outlined above and follows a grouped format. Each environmental topic is examined in a separate section of the EIAR. A summary of the methodology is as follows-

- Description of the receiving environment (baseline) and examination of ‘do-nothing scenario’
- Description of forecasting methods/baseline data collection
- Description of likely significant impacts of the development on the relevant environmental factor
- Description of mitigation measures and residential impacts (if any)
- Difficulties encountered in compiling information

2.4.1 Descriptions of Effects

A consistent method of description is adhered to in the interest of clarify. The descriptive terminology follows EPA Guidelines⁵ as follows-

<p>Quality of Effects</p> <p><i>It is important to inform the non-specialist reader whether an effect is positive, negative or neutral</i></p>	<p>Positive Effects</p> <p>A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).</p>
	<p>Neutral Effects</p> <p>No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.</p>
	<p>Negative/adverse Effects</p> <p>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).</p>
<p>Describing the significance of effects</p> <p><i>‘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 below.).</i></p>	<p>Imperceptible</p> <p>An effect capable of measurement but without significant consequences.</p>

⁵ Table 3.3 Guidelines on the information to be contained in Environmental Impact Assessment Reports – Draft – August 2017

	<p>Not Significant</p> <p>An effect which causes noticeable changes in the character of the environment but without significant consequences.</p>
	<p>Slight Effects</p> <p>An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p>
	<p>Moderate Effects</p> <p>An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p>
	<p>Significant Effects</p> <p>An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.</p>
	<p>Very Significant</p> <p>An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.</p>
	<p>Profound Effects</p> <p>An effect which obliterates sensitive characteristics</p>
<p>Describing the Extent and Context of Effects</p> <p><i>Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.</i></p>	<p>Extent</p> <p>Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.</p>
	<p>Context</p> <p>Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)</p>

<p>Describing the Probability of Effects</p> <p><i>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.</i></p>	<p>Likely Effects</p> <p>The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p>
	<p>Unlikely Effects</p> <p>The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
<p>Describing the Duration and Frequency of Effects</p> <p><i>'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.</i></p>	<p>Momentary Effects</p> <p>Effects lasting from seconds to minutes</p>
	<p>Brief Effects</p> <p>Effects lasting less than a day</p>
	<p>Temporary Effects</p> <p>Effects lasting less than a year</p>
	<p>Short-term Effects</p> <p>Effects lasting one to seven years.</p>
	<p>Medium-term Effects</p> <p>Effects lasting seven to fifteen years.</p>
	<p>Long-term Effects</p> <p>Effects lasting fifteen to sixty years.</p>
	<p>Permanent Effects</p> <p>Effects lasting over sixty years</p>
	<p>Reversible Effects</p> <p>Effects that can be undone, for example through remediation or restoration</p>
	<p>Frequency of Effects</p> <p>Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)</p>

Table 2.1 - Descriptions of Effects

2.4.2 Indirect, Secondary and/or Cumulative Impacts

The application site forms part of a larger area referred to as the Eastern Node. A Nodal Masterplan accompanies the planning application for the proposed Strategic Housing Development. This EIAR considers the likely future environmental loadings arising from the development of zoned lands in the immediate environs of the proposed project in terms of traffic.

The foul drainage strategy takes consideration of the capacity of the existing pumping stations in Tullamore, including a telemetry system to communicate with pumping stations to ensure the proposed development does not overload the system and cause adverse impacts.

2.5 Competency of Experts

The 2001 Regulations (as amended)⁶ require the EIAR to contain a list of the experts who contributed to the preparation of the EIAR, identifying for each such expert-

- i. The part or parts of the report which he or she is responsible for or to which he or she contributed
- ii. His or her competence and experience including relevant qualifications, if any, in relation to such parts, and
- iii. Such additional information in relation to his or her experience that the person or persons preparing the EIAR consider demonstrates the expert's competence in the preparation of the report and ensures its completeness and quality.

Table 2.2 provides details of the experts and the sections of the EIAR they contributed to with full details of the experts and their competency below.

Chapter	Aspect of the Environment Assessed	Contributor	Contact Name
1	Non-technical Summary	Stephen Ward Town Planning & Development Consultants Limited	Judith Horgan Stephen Ward
2	Introduction and Regulatory Matters		
3	Introduction to Site and Context		
4	Population and Human Health (including Seveso/COMAH)	Stephen Ward Town Planning & Development Consultants Limited	Judith Horgan Stephen Ward
		AWN Consulting Limited	Matthew Michie
5	Biodiversity	Mr. R.Goodwillie	Mr. R. Goodwillie
6	Land, Soils & Hydrogeology	DBFL Consulting Engineers	Brendan Keogh
7	Hydrology	DBFL Consulting Engineers	Brendan Keogh
8	Air Quality and Climate including Odour	AWN Consulting Limited	Jack Brennan
9	Noise, Vibration & Inward Impact	AWN Consulting Limited	Aoife Kelly
10	Material Assets – Traffic	DBFL Consulting Engineers	Mark McKenna
11	Material Assets – Build Services	DBFL Consulting Engineers	Brendan Keogh

⁶ Section 94 (e)

Chapter	Aspect of the Environment Assessed	Contributor	Contact Name
11	Material Assets – Waste Management	AWN Consulting Limited	Ashley O’Toole
12	Cultural Heritage including Archaeology	Archer Heritage Planning	Aidan O’Connell
13	Landscape and Visual	Park Hood	Andrew Bunbury
14	Summary of Impacts and Interactions	Stephen Ward Town Planning & Development Consultants Limited	Judith Horgan Stephen Ward
15	Mitigation, Monitoring and residual impacts (if any)	Stephen Ward Town Planning & Development Consultants Limited	Judith Horgan Stephen Ward

Table 2.2 – Chapter Responsibility

<p>Stephen Ward - B.A.Mod (Hons),MRUP,MIPI</p> <p>Stephen Ward Town Planning & Development Consultants Limited</p> <p>Stephen Ward has over 30 years’ experience working in planning and development gained within the public and private sectors in Ireland and the UK. Prior to establishing Stephen Ward Planning Consultants in 1997 Stephen held the position of Senior Planner in Dundalk Town Council. He has an in-depth understanding and knowledge of the planning system. Stephen has worked in conjunction with national and international architects, urban designers and other built environment professionals on the preparation of Local area Plans, Framework Plans and Master Plans on behalf of local authorities across Ireland.</p>
<p>Judith Horgan - B.A. Mod (Hons), MRUP, MIPI</p> <p>Stephen Ward Town Planning & Development Consultants Limited</p> <p>Judith Horgan graduated in 2005 with a Masters in Regional and Urban Planning from University College Dublin and has significant experience in development management and design elements of planning applications. Judith has been responsible for coordinating a range of residential and commercial developments on both greenfield and brownfield sites in both Ireland and the UK. Judith has also managed, co-ordinated and compiled Environmental Impact Assessment Reports including a retail-led mixed use development proposal on c.6ha brownfield site on the Warrenpoint Road in Newry, Co.Down and a mixed use brownfield site on the South Quays in Drogheda, Co.Louth.</p>
<p>Matthew Michie - MChem (Hons) in Chemistry, MSc in Physical Chemistry</p> <p>AWN Consulting</p> <p>Matt has experience in providing consultancy services to operators (Hospitals, Chemical sites, Distilleries, Refineries, Food Producers and Power Plants) requiring Green House Gas support; managing EU Emissions Trading System (ETS) emissions and calculating future CO2 allocation, preparation of Energy Savings Opportunity Scheme (ESOS) and Streamlined Energy and Carbon Reporting (SCER) reports, composing Medium Combustion Plant (MCP) permits and advising on carbon offsetting.</p>

Jack Brennan – BSc Environmental Management
AWN Consulting
Jack is an Environmental Consultant in the Air Quality Section of AWN. He specialises in fields of ambient air monitoring and indoor air monitoring.
Ashley O’Toole - BA in Natural Science
AWN Consulting
Ashley O’ Toole is a Senior Environmental Consultant with AWN Consulting with 12 years of experience with ongoing roles in assessment, licensing, waste management, site investigation and environmental compliance. Ashley has a BA in Natural Sciences from Trinity College Dublin and is a Practitioner Member of the Institute of Environmental Management and Assessment (IEMA). She is also a Chartered Waste Manager and a Full Member of the Chartered Institute of Waste Management (CIWM). Ashley has extensive experience in project management and co-ordination of environmental impact assessments, sustainability projects, contaminated land site investigations, and IE licence applications.
Aoife Kelly – BSc. Environmental Health, Diploma in Acoustics and Noise Control, PhD in Occupational Noise
AWN Consulting
Aoife is a member of the Institute of Acoustics and has specialised in acoustics since 2014. Aoife has extensive knowledge in the field of occupational noise risk assessments, environmental noise and vibration effect assessment and inward effect assessments.
Mr. Roger Goodwillie - M.C.I.E.E.M.
Mr. R. Goodwillie is a full member of a full member of the Chartered Institute of Ecology and Environmental Management with over 30 years’ experience in ecological assessments.
Brendan Keogh - Chartered Engineer
DBFL
Brendan Keogh is a Chartered Professional Engineer with over 15 years’ experience in the design and construction of civil engineering projects. Projects have included works associated with the commercial, industrial, energy, residential and public infrastructure sectors.
Mark McKenna - BEng (Hons) MSc MIEI
DBFL
Mark McKenna is a Transportation Engineer with over 8 years’ experience in the design and planning of traffic & transportation projects. Projects have included works associated with the commercial, residential and transport infrastructure sectors.
Aidan O’Connell – BA MIAI
Archer Heritage Planning
Aidan O’Connell is a Senior Archaeologist with Archer Heritage Planning Ltd with 20 years’ experience in archaeological assessment.

**Andrew Bunbury - BALD DipLA MLI
Park Hood**

Andrew is a Chartered Member of the Landscape Institute (CMLI) who has worked in the Ireland, UK and Europe since graduating in the 1990's. He became Director of Park Hood Environmental Ltd. in 2012 and heads up Landscape and Visual Impact Assessment Section. In the last couple of years we have undertaken this work to support planning applications for the H2 Zoned Lands on the Buncrana Road in Derry (3,500 dwellings), Glenmonagh in Belfast (700 dwellings), Royal Canal Park, Dublin 15 (+200 houses, 1000 apartments and mixed use) and Glenavy Road, Lisburn (500 dwellings).

2.6 EIA Portal

Section 172A of the Planning and Development Act 2000 (as amended) introduces the operation of the EIA Portal. Under Section 172B an applicant for consent for proposed development shall, within the period of 2 weeks before the making of an application for such consent which is to be accompanied by an environmental impact assessment report, provide the prescribed information in electronic form to the EIA portal in the manner set out on the portal. Article 22 (2) (ga) requires that where the application is accompanied by an EIAR, a copy of the confirmation notice issued by the DHPLG acknowledging receipt of the required information on to the Portal. Please find the confirmation notice for the subject planning application and EIAR attached at Appendix 2.1.

This EIAR accompanies a planning application for Strategic Housing Development. As such, an electronic copy of this EIAR is available for public viewing on a website produced by the applicant (www.clonminchshd.ie).

2.7 Errors

This EIAR has been prepared by experienced and competent environmental specialists to ensure the EIAR is robust and objective. No difficulties were encountered in compiling any of the specialist information contained in this EIAR. Where any specific difficulties were encountered these are stated in the relevant chapter. While every effort has been made to ensure that the content of this EIAR document is error free and consistent there may be instances in this document where typographical errors and/or minor inconsistencies do occur. These typographical errors and/or minor inconsistencies are unlikely to have any material impact on the overall findings and assessment contained in this EIAR.

References

- Advice on Current Practice (in the preparation of Environmental Impact Statements) (EPA, 2003)
- Draft Advice Notes for preparing Environmental Impact Statements (EPA, September 2015)
- Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development (Department of Environment, Heritage and Local Government, 2003)
- Environmental Impact Assessment of Projects-Guidance on the preparation of the environmental impact assessment report (EU,2017)
- Guidance on EIA Scoping (EC,2001)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018)
- Guidelines on the Information to be Contained in EIAR (Draft, EPA, 2017)
- Planning and Development Act (2000, as amended)
- Planning and Development Regulations (2001, as amended)
- The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

APPENDIX 2.1

EIA Portal Confirmation