

5 POPULATION & HUMAN HEALTH

5.1 Introduction

This chapter considers the potential effects of the Proposed Development on human beings, living, working and visiting in the vicinity of the site. The chapter details the potential direct and indirect effects of the Proposed Development on the local population and human health.

The section on Population and Human Health is broad ranging and covers the existence, wellbeing, and activities of people through the format of considering people as 'groups' or 'populations'. The assessment of impacts on human beings involves the identification of relevant key populations that may be affected by the proposal and quantifiable documentary research. Health, as defined by the World Health Organization (WHO), is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

Key populations have been identified as persons residing and engaging in activities near the site, persons with a stake in the general economy of the local and regional area, and persons enjoying the recreational and cultural amenities of the area.

5.1.1 Quality Assurance and Competence

This chapter is prepared by Rachel Redmond, Environmental Consultant, with Enviroguide. Rachel has a BSc (Hons) in Environmental Science from University College Cork. Rachel has over 3 years professional experience as an Environmental Consultant, preparing EIA Screening Reports and a range of chapters for EIARs of a similar scale and nature to the Proposed Development.

The report has been reviewed by Gráinne Ryan, Principal Consultant with Enviroguide. Gráinne has worked in consulting for many years and most recently directly within the renewable energy industry. Gráinne's project experience in the waste, pharmaceutical, residential, industrial and commercial sectors cover the planning, consenting and operational stages.

5.2 Assessment Methodology

A desk-based study was undertaken April 2025 to assess the information regarding population, age structure, economic activity, employment and unemployment within the vicinity of the Proposed Development. This study was undertaken in accordance with the following guidance:

- Guidelines on the information to be contained in Environmental Impact Assessment Reports, EPA (2022);
- EIA Guide to Effective Scoping of Human Health, IEMA (2022);
- EIA Guide to Determining Significance for Human Health, IEMA (2022); and,
- Institute of Public Health (IPH) (2021) Health Impact Assessment Guidance.

The 2022 Census of Ireland was held on Sunday the 3rd of April 2022. The preliminary results were released on the 23rd of June 2022 with the remaining results being published over several months starting in April 2023.

The scope of this evaluation is based on a review of data available from the Central Statistics Office (CSO), legislation, guidance documents and EIARs. The aim of the study is to assess the current baseline environment.

The potential effects of the Proposed Development on the local population are assessed in this EIAR Chapter in relation to:

- Population demographics;
- Socio economic impacts;
- Water quality;

- Air quality;
- Noise and vibration;
- Traffic and transport; and,
- General amenity and tourism.

In accordance with the IPH guidance, sensitivity of the local population will be determined following the methodology set out in Part 4 and as summarised in the Health Sensitivity: Conceptual Model presented in Figure 5-1 below.

The sensitivity of the population is considered taking into account the following indicative criteria as included in the IEMA guidance:

- Deprivation;
- Resource sharing;
- Inequalities;
- Community outlook;
- Daily activities;
- Dependencies;
- Health status; and
- Adaptability.

In addition, the health magnitude of effects is considered, taking into account the indicative criteria set out in the IEMA guidance:

- Scale;
- Duration;
- Frequency;
- Severity;
- Extent;
- Reversibility of the effect; and
- Health services quality implication.

5.2.1 Study Area

No formal national guidance is available on the appropriate study area to focus the assessment of population and human health. As such, professional judgement has been applied in determining the appropriate study areas. Due to the wide reaching and often transient nature of people, the potential effects of the Proposed Development can be experienced at different scales. For example, the impact of air quality on human health will be experienced at a much smaller radius when compared to socio-economic impact which can be experienced at a community or regional level.

When choosing an appropriate study area for the potential effects on population and human health in this chapter, the extent of the area assessed varies. In order to assess baseline population and human health conditions in the wider area, a number of Electoral Divisions (EDs) are considered including Castleknock-Knockmaroon ED and Lucan North ED.

5.2.2 Information Sources

The principal sources of information are as follows:

- Census and employment information published by the Central Statistics Office (CSO);

- Fingal County Development Plan 2023 – 2029
- Ordnance Survey Ireland (OSI) mapping and aerial photography.

The Institute of Public Health in Ireland has issued a document “Health Impact Assessment Guidance” (2021) which details the link between human health and the built environment (Figure 5-1). This document also details the negative health impacts associated with unemployment. Unemployment affects both physical and mental health and is an important determinant of health inequalities in adults of working age. Unemployed people have a higher risk of lower levels of psychological wellbeing ranging from symptoms of depression and anxiety to self-harm and suicide. Unemployment can also impact other health determinants for example housing and nutrition. Based on this information, employment generated as a result of the Proposed Development has been assessed throughout this chapter.

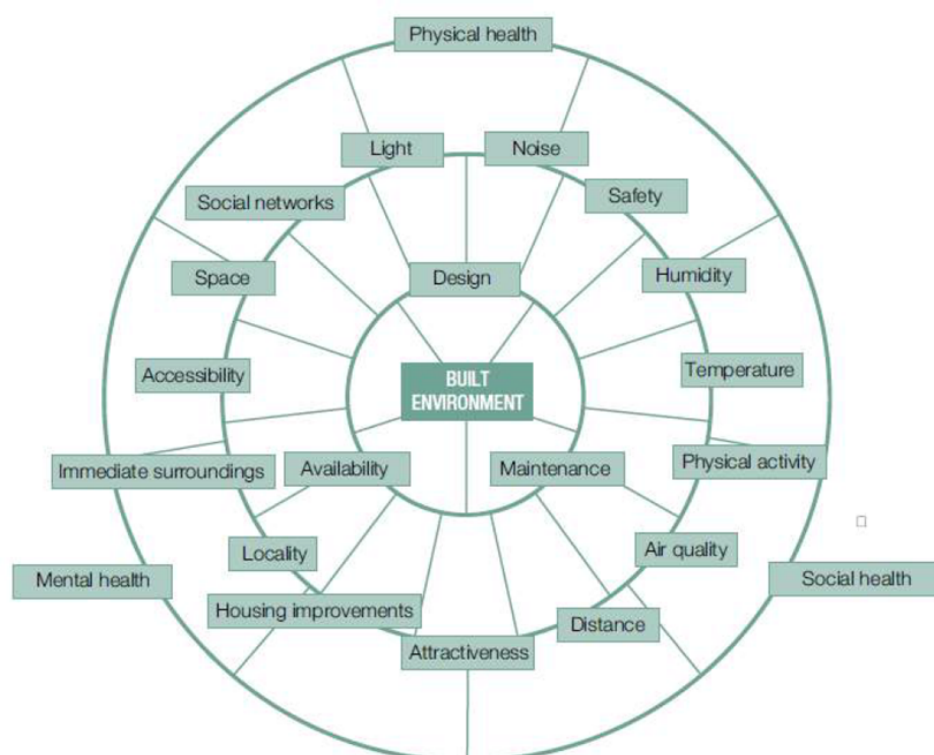


Figure 5-1 Health Impact of the built environment (source: Institute of Public Health)

The European Commission (EC) has published the “Guidance on The Preparation of The Environmental Impact Assessment Report” (EC, 2017). This document defines human health as “a very broad factor that would be highly Project dependent. 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”.

Technical chapters within the EIAR will also be reviewed when assessing the likely effects on population and human health. These include the relevant chapters relating to air quality, noise and vibration, hydrology, traffic and transport and landscape and visual.

In line with the Environmental Protection Agency (EPA) Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022) (the EPA Guidelines (EPA, 2022)), the terms defined when quantifying the quality of effects, as outlined in Chapter 1.

5.3 The Existing and Receiving Environment

5.3.1 Proposed Development – Plot 1 (Luttrellstown Gate Phase 2)

Population and Demographic Analysis

The most recent population figures published by the Central Statistics Office (CSO) indicate that the combination of a net inward migration and high birth rates have resulted in the population of Ireland has exceeded five million for the first time since 1851. Population projections for Ireland up to 2046 anticipate a population of approximately five million under the most pessimistic scenario and over 6.7 million under the most optimistic scenario. Population projections for Northern Ireland up to 2034 anticipate a population of approximately two million.

The site is located within the Electoral Division (ED) Castleknock-Knockmaroon. It borders the Electoral Division Lucan North.

Table 5-1 shows population of the Castleknock-Knockmaroon ED, Lucan North ED, Fingal County Council (FCC) Jurisdiction and the State as recorded during the 2016 and 2022 Census, as well as the percentage change in population during this period to highlight overall residential patterns. Castleknock-Knockmaroon ED has experienced an increase in population (+10.22%) which is less than the increase in FCC (+11.6%) and is more than the increase of population in the State (+8.13%).

Table 5-1: Population Change in Castleknock-Knockmaroon ED, Lucan-North ED, FCC Jurisdiction and Ireland from 2016 to 2022 (Source: CSO 2025)

Area	Population 2016 Census Data	Population 2022 Census Data	Change Number of People	Percentage change in Population
Castleknock-Knockmaroon	19,027	20,967	1,940	10.2
Lucan North	1,436	1,765	329	22.9
FCC Jurisdiction	296,020	330,506	34,486	11.6
Ireland	4,761,865	5,149,139	387,274	8.1

Table 5-2 details the low and high population projections for Fingal County Council for the period 2022-2028. These estimations have been informed by the Regional Spatial and Economic Strategy (RSES) 2019-2031 and the National Planning Framework (NPF) (rounded to the nearest 500 persons) (Chapter 2, Planning for Growth Core Strategy Settlement Strategy, Fingal County Development Plan 2023-2029). When taking the highest estimations, the population of FCC Jurisdiction in 2026 and 2031 will be 333,000 and 349,000 respectively.

Table 5-2: Population projections for Fingal County Council Jurisdiction

Area	2016	2026 low – 2026 high	2031 low – 2031 high
FCC Jurisdiction	296,020	327,000 - 333,000	340,000 - 349,000

Population and Age

The social and community needs are assessed based on consideration of the existing and potential population growth and best practice provision. CSO data for 2022 recorded a total of 20,967 people live in Castleknock-Knockmaroon.

Table 5-3 shows the breakdown of the population of Castleknock-Knockmaroon ED, Lucan North ED, Fingal County Council Jurisdiction and the State based on their age range. This table is further broken down into percentages of the population within these age ranges.

Table 5-3: Population categories by age in Castleknock-Knockmaroon ED, Lucan North ED, FCC Jurisdiction and Ireland

Age Range	Castleknock-Knockmaroon ED		Lucan North ED		FCC Jurisdiction		Ireland	
	No. of People	% of People	No. of People	% of People	No. of People	% of People	No. of People	% of People
0-4 years	1,373	6.55	78	4.42	21,017	6.36	295,415	5.74
5-24 years	5,694	27.16	624	35.35	87,932	26.61	1,361,643	26.44
25-34 years	2,565	12.23	107	6.06	49,138	14.87	628,031	12.20
35-44 years	3,676	17.53	207	11.73	57,436	17.38	794,393	15.43
45-54 years	2,915	13.90	350	19.83	38,789	11.74	713,507	13.86
55-64 years	2,418	11.53	175	9.92	39,650	12.00	579,835	11.26
65-74 years	1,569	7.48	70	3.97	21,828	6.60	441,028	8.57
75 years and over	757	3.61	154	8.73	14,716	4.45	335,287	6.51
Total	20,967		1,765		330,506		5,149,139	

Castleknock-Knockmaroon ED has a lower percentage of people aged over 65 when compared with the State (11.09% versus 15.08% respectively). In Castleknock-Knockmaroon ED, the largest portion of the population is aged 5-24 years reflecting 27.16% of the overall population which is slightly above the values for the State (26.44%). There are more people in Castleknock-Knockmaroon ED aged 35-44 years (17.53%) when compared with FCC Jurisdiction (17.38%) and the State (15.43%).

Economic Activity and Employment

The labour force is defined as the number of people above the legal working age that are available to work. Table 5-4 shows the percentage of the population who were in the labour force during the 2022 census.

The number of people at work in Castleknock-Knockmaroon ED (62.73%) is higher than the average for FCC Jurisdiction (60.46%) and the State (56.09%). This corresponds to the average number of people who are retired in Castleknock-Knockmaroon ED (13.7%) when compared with FCC Jurisdiction (12.56%) and the State (15.90%). The number of people who are students within the Castleknock-Knockmaroon ED (11.74%) is less than that of the Lucan-North ED (16.45%), but is in line with the FCC jurisdiction (11.5%) and the State (11.10%). No other economic status in Castleknock-Knockmaroon ED differs from the average in the FCC Jurisdiction or the State by more than 3%.

Table 5-4: Principal economic status

Principle Economic Status	Castleknock-Knockmaroon ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
At work	10,292	62.73	788	58.11	155,063	60.46	2,320,297	56.09
Looking for first regular job	111	0.68	4	0.29	2,299	0.90	34,526	0.83
Short term unemployed	226	1.38	10	0.74	4,794	1.87	70,217	1.70
Long term unemployed	245	1.49	18	1.33	5,957	2.32	106,059	2.56
Student	1,926	11.74	223	16.45	29,497	11.5	459,275	11.10
Looking after home/family	938	5.72	75	5.53	16,344	6.37	272,318	6.58
Retired	2,247	13.70	209	15.41	32,219	12.56	657,790	15.90
Unable to work due to permanent sickness or disability	360	2.19	18	1.33	8,835	3.45	189,308	4.58
Other	62	0.38	11	0.81	1450	0.57	27,062	0.65
Total	16,407		1,356		256,458		4,136,852	

The closest social welfare office to the Proposed Development which has figures available for the number of people on the Live Register / Unemployed is Blanchardstown Intreo Centre which covers the following areas: All of Dublin 15, Ashtown, Ballycoolin, Blanchardstown, Blakestown, Clonsilla, Coolmine, Carpenterstown, Castaheany, Castleknock, Clonee (Dublin 15 only), Corduff, Damastown, Dunsink Lane (Dublin 15 only), Hartstown, Huntstown, Hollystown (Dublin 15 only), Kilbride (Dublin 15 only), Ladyswell, Mulhuddart, Ongar, Pelletstown, Phibblestown, Phoenix Park Racecourse, Porterstown, Rathbourne (Dublin 15 only) and Tyrellstown..

The Live Register is used to provide a monthly series of the numbers of people (with some exceptions) registering for Jobseekers Benefit or Jobseekers Allowance or for various other statutory entitlements at local offices of the Department of Social Protection. At the time of carrying out this baseline assessment, the most recent information available is from March 2025. Table 5-5 shows that the number of people on the live register remains relatively constant with numbers fluctuating between -5.08% and 3.48% over the previous 6 months.

Table 5-5: Live Register for the previous 6 Months

Month	No. of people	Percentage change
2024 October	3,485	

Month	No. of people	Percentage change
2024 November	3,308	-5.08%
2024 December	3,440	3.99%
2025 January	3,442	0.06%
2025 February	3,562	3.49%
2025 March	3,438	-3.48%

Table 5-6 shows the industries the people of Castleknock-Knockmaroon ED work in compared with FCC Jurisdiction and the State. The top three groups which account for 68.48 % of Castleknock-Knockmaroon ED:

- Commerce and trade;
- Professional services; and
- Transport and communications.

Table 5-6 Industry in which people work

Industry	Castleknock-Knockmaroon ED		Lucan – North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Agriculture and forestry	15	0.15	9	1.14	1,092	0.70	82,228	3.54
Building and Construction	481	4.67	55	6.98	8258	5.33	134,482	5.80
Manufacturing Industries	775	7.53	62	7.87	11,189	7.22	273,102	11.77
Commerce and Trade	3,077	29.90	262	33.25	42,599	27.47	552,642	23.82
Transport and Communication	1,380	13.41	96	12.18	22,248	14.35	212,383	9.15
Public Administration	739	7.18	33	4.19	9,370	6.04	131,639	5.67
Professional Services	2,590	25.17	178	22.59	37,049	23.89	568,105	24.48
Other	1,235	12.00	93	11.80	23,258	15.00	365,716	15.76

Industry	Castleknock-Knockmaroon ED		Lucan – North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Total	10,292		788		155,063		2,320,297	

Table 5-7 shows the occupation of people in Castleknock-Knockmaroon ED compared with FCC Jurisdiction and the State. The top three groups which account for 58.81% of Castleknock-Knockmaroon ED are:

- Professional Occupations;
- Associate Professional and Technical Occupations; and
- Managers, Directors and Senior Officials.

Table 5-7: Occupations of which People work

Occupation	Castleknock-Knockmaroon ED		Lucan - North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Managers, Directors and Senior Officials	1,285	11.94	134	16.42	15,273	9.21	192,679	7.72
Professional Occupations	3,397	31.56	249	30.51	34,431	20.76	507,044	20.31
Associate Professional and Technical Occupations	1,648	15.31	136	16.67	22,377	13.50	292,273	11.71
Administrative and Secretarial Occupations	1,103	10.25	74	9.07	17,621	10.63	229,737	9.20
Skilled Trades Occupations	685	6.36	62	7.60	14,179	8.55	313,921	12.57
Caring, Leisure and Other Service Occupations	494	4.59	31	3.80	11,763	7.09	183,584	7.35
Sales and Customer Service Occupations	514	4.78	44	5.39	10,812	6.52	154,238	6.18
Process, Plant and Machine Operatives	398	3.70	20	2.45	9,920	5.98	172,521	6.91
Elementary Occupations	559	5.19	32	3.92	13,363	8.06	203,532	8.15
Not stated	680	6.32	34	4.17	16,075	9.69	247,044	9.90
Total	10,763		8,16		165,814		2,496,573	

In relation education, Table 5-8 shows the highest level of education in Castleknock-Knockmaroon ED compared with the FCC Jurisdiction and the State. The highest level of education in Castleknock-

Knockmaroon ED is Primary Education (24.16%) which is higher than that of the FCC Jurisdiction and the State. This is followed by Advanced certificate/Completed apprenticeship (21.04%) which is in line with FCC Jurisdiction but much higher when compared with values for the State.

Table 5-8 Highest Level of Education Completed

Highest Level of Education Completed	Castleknoock-Knockmaroon ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Postgraduate diploma or degree	143	1.08	4	0.37	202,630	1.66	379,416	11.21
Honours bachelor degree, professional qualification or both	320	2.42	19	1.77	9,576	4.73	450,523	13.31
Upper secondary	785	5.94	59	5.49	20,784	10.26	613,478	18.13
Ordinary bachelor degree or national diploma	1,998	15.13	143	13.30	38,007	18.76	272,535	8.05
Lower secondary	709	5.37	40	3.72	15,339	7.57	446,007	13.18
Higher certificate	534	4.04	41	3.81	10,678	5.27	187,488	5.54
Technical or vocational qualification	736	5.57	49	4.56	11,823	5.83	253,892	7.50
Not stated	1,381	10.46	122	11.35	18,726	9.24	220,311	6.51
Advanced certificate/Completed apprenticeship	2,779	21.04	238	22.14	30,919	15.26	190,268	5.62
Primary education	2,895	21.92	178	16.56	27,228	13.44	251,219	7.42
Doctorate (Ph.D) or higher	325	2.46	19	1.77	2,497	1.23	38,212	1.13
No formal education	602	4.56	163	15.16	13,685	6.75	81,280	2.40
Total	13,207		1075		202,630		3,384,629	

Deprivation Indices

In addition, the Pobal HP Deprivation Indices was reviewed for Castleknoock-knockmaroon ED. The deprivation index and relevant information is included in Table 5-9 below.

Table 5-9: Pobal HP Deprivation Indices

Pobal Deprivation Indices	Castleknoock-knockmaroon ED
Pobal HP Index 2022	10.69
Pobal HP Description 2022	Affluent
Population 2022	20,967
Age Dependency Ratio 2022 %	32.84
Lone Parent Ratio 2022 %	10.92

Pobal Deprivation Indices	Castleknock-knockmaroon ED
Prop. Primary Education Only 2022 %	3.67
Proportion at Third Level Education 2022 %	64.39
Unemployment Rate - Male	5.22
Unemployment Rate - Female	5.50

The study area is described as being 'affluent' deprivation levels.

Human Health

Health, as defined by the World Health Organization (WHO), is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The Healthy Ireland Framework 2013-2025 defines health as 'everyone achieving his or her potential to enjoy complete physical, mental and social wellbeing. Healthy people contribute to the health and quality of the society in which they live, work and play'. This framework also states that health is much more than an absence of disease or disability, and that individual health, and the health of a country affects the quality of everyone's lived experience.

Health is an essential resource for everyday life, a public good and an asset for health and human development. A healthy population is a major asset for society and improving the health and wellbeing of the nation is a priority for Government. Healthy Ireland Framework 2013-2025 is a collective response to the challenges facing Ireland's future health and wellbeing.

Statistics for general health were assessed for the study area. Table 5-10 shows that 88.67% of people have self-identified themselves as having "very good" or "good" health.

Table 5-10: Health Status

General Health	Castle-knock ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Very Good	12,934	61.69	1,162	65.84	182,955	55.36	2,740,994	53.23
Good	5,657	26.98	351	19.89	95,307	28.84	1,527,027	29.66
Fair	1,155	5.51	68	3.85	23,659	7.16	444,895	8.64
Bad	197	0.94	10	0.57	3,857	1.17	72,556	1.41
Very Bad	42	0.20	0	0.00	832	0.25	16,843	0.33
Not Stated	982	4.68	174	9.86	23,896	7.23	346,824	6.74
Total	20,967		1,765		330,506		5,149,139	

Social Health

According to the World Health Organisation, poor social and economic circumstances affect health throughout life. Good health involves reducing levels of educational failure, reducing insecurity and unemployment, and improving housing standards. Health is influenced, either positively or negatively, by a variety of factors. Some of these factors are genetic or biological and are relatively fixed. 'Social determinants of health' arise from the social and economic conditions in which people live. They are not so fixed such as type of housing and environments, access to health or education services, incomes generated and the type of work people do, can all influence a person's health, and the lifestyle decisions people make.

A range of factors have been identified as social determinants of health. These can include the wider socio-economic context, inequality, poverty, social exclusion, socioeconomic position, income, public policies, health services, employment, education, housing, transport, the built environment, health behaviours or lifestyles, social and community support networks and stress.

People who are less well off or who belong to socially excluded groups tend to fare badly in relation to these social determinants. Being at work on the other hand provides not only an income, but also access to social networks, a sense of identity and opportunities for development or progression.

Figure 5-2 below presents the social determinants of health adapted from Dalghren and Whitehead (1991) and Grant and Barton (2006) as presented in Healthy Ireland.

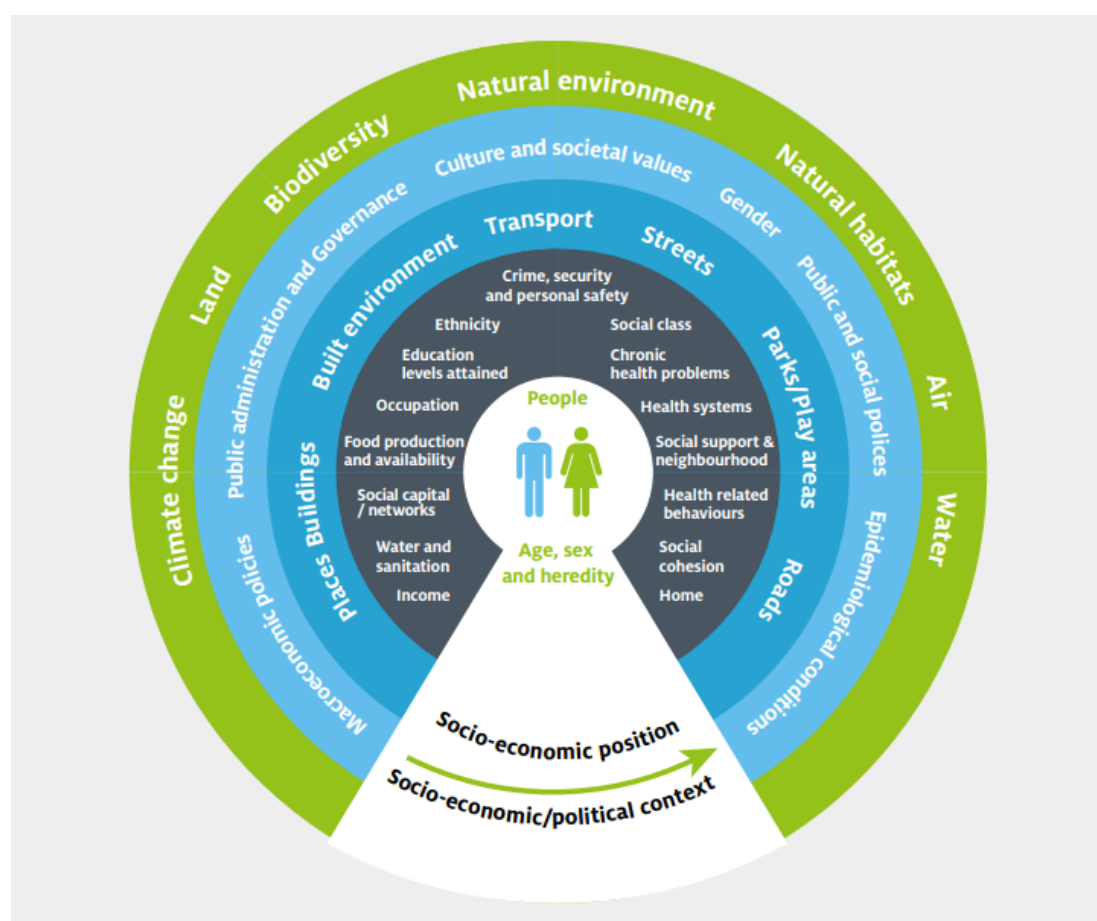


Figure 5-2 Social Determinants of Health (Healthy Ireland, DOH 2013)

As aforementioned 62.73% of people in Castleknock-knockmaroon ED are in the labour force / at work. This reflects the high number of people of a working profile living within the area which is expected due to the percent of people of a working age living in the area.

Amenities

Healthcare Facilities

The closest hospital to the site is Connolly Hospital Blanchardstown, located approximately 2.67km northeast of the site. BR Clinic and Healthwell Clinic are located approximately 355m from the site.

Education Facilities

The closest national school to the site is the Scoil Choilm Community National School located south of the site. The closest secondary school to the site is the Luttrellstown Community College located south of the site.

Sports and Recreation

There are a number of sports and outdoor facilities located in the vicinity of the Proposed Development including the Golf Course at Luttrellstown Castle, Castlenock Golf Club, Coolmine Sports and Leisure Centre. Additionally, there are a number of parks located in the vicinity of the Proposed Development including Beechpark, Porterstown Park and Coolmine Canal Banks Woods.

Receptor Sensitivity

The sensitivity of the local area and population as determined considering the above examination of the local area and population, and the IEMA Guide to Determining Significance for Human Health in Environmental Impact Assessment.

Table 5-11: Sensitivity Determination

Criteria	Classification	Risk Category	Justification
Deprivation	Affluent	Very Low	The deprivation index for the area is described as “affluent”.
Resource Sharing	Sufficient	Low	It is considered that there will be sufficient resources in the area to share with the Proposed Development. Refer to section 5.5 for the potential impacts on water and traffic.
Inequalities	Moderate	Moderate	The local area has a majority of “very good” or “good” health (85.73%), which is fairly homogenous. In addition, the majority of the population is “at work” (62.73%), with only 2.87% of the population in the study area being unemployed. The highest level of education in the area is Primary Education (21.92%).
Community Outlook	Ambivalent	Low	The site is located on a greenfield site, surrounded by existing residential developments. It is expected that the local population would have a neutral outlook towards the Proposed Development.
Daily Activities	Slightly limited	Low	2.19% of the population identifies as being unable to work due to permanent sickness or disability.
Care Taking	Some care required	Low	With 2.19% of the population being unable to work due to permanent sickness or disability, it is expected that some care is required or being provided for within the study area.
Dependencies	Independent	Very Low	The age dependency ratio for the study area is 32.84%, which is lower than the national average of 53.2%.
Health Status	Very good	Very Low	The majority of the population (61.69%) identified as having “very good” health. 26.98% of the population identified as having “good” health.

Criteria	Classification	Risk Category	Justification
Adaptability	High capacity	Very Low	It is expected that the Proposed Development will not have an adverse effect on service quality for the resident population.
Overall Sensitivity		Very Low	

5.3.2 Proposed Development - Plot 2 (St. Mochta's LRD).

Population and Demographic Analysis

The most recent population figures published by the Central Statistics Office (CSO) indicate that the combination of a net inward migration and high birth rates have resulted in the population of Ireland has exceeded five million for the first time since 1851. Population projections for Ireland up to 2046 anticipate a population of approximately five million under the most pessimistic scenario and over 6.7 million under the most optimistic scenario. Population projections for Northern Ireland up to 2034 anticipate a population of approximately two million.

The site is located within the Electoral Division (ED) Lucan - North. It borders the Electoral Division Castleknock-Knockmaroon.

Table 5-12 shows population of the Lucan North ED, Castleknock-Knockmaroon ED, Fingal County Council (FCC) Jurisdiction and the State as recorded during the 2016 and 2022 Census, as well as the percentage change in population during this period to highlight overall residential patterns. Lucan North ED has experienced an increase in population (+22.9%) which is double the increase in FCC jurisdiction (+11.6%) and is more than the increase of population in the State (+8.13%).

Table 5-12: Population Change in Lucan North ED, Castleknock-Knockmaroon, FCC Jurisdiction and Ireland from 2016 to 2022 (Source: CSO 2025)

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Table 5-13: Population projections for Fingal County Council Jurisdiction

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FCC Jurisdiction	296,020	327,000 - 333,000	340,000 - 349,000

Population and Age

The social and community needs are assessed based on consideration of the existing and potential population growth and best practice provision. CSO data for 2022 recorded a total of 1,765 people live in Lucan North ED.

Table 5-14 shows the breakdown of the population of Lucan-North ED, Castleknock-Knockmaroon ED, Fingal County Council Jurisdiction and the State based on their age range. This table is further broken down into percentages of the population within these age ranges.

Table 5-14: Population categories by age in Lucan North ED, Castleknock-Knockmaroon ED, FCC Jurisdiction and Ireland

Age Range	Lucan North ED		Castleknock-Knockmaroon ED		Fingal County Council Jurisdiction		Ireland	
	No. of People	% of People	No. of People	% of People	No. of People	% of People	No. of People	% of People
0-4 years	78	4.42	1,373	6.55	21,017	6.36	295,415	5.74
5-24 years	624	35.35	5,694	27.16	87,932	26.61	1,361,643	26.44
25-34 years	107	6.06	2,565	12.23	49,138	14.87	628,031	12.20
35-44 years	207	11.73	3,676	17.53	57,436	17.38	794,393	15.43
45-54 years	350	19.83	2,915	13.90	38,789	11.74	713,507	13.86
55-64 years	175	9.92	2,418	11.53	39,650	12.00	579,835	11.26
65-74 years	70	3.97	1,569	7.48	21,828	6.60	441,028	8.57
75 years and over	154	8.73	757	3.61	14,716	4.45	335,287	6.51
Total	1,765		20,967		330,506		5,149,139	

Lucan North ED has a lower percentage of people aged over 65 when compared with the State (12.7% versus 15.08% respectively). In Lucan-North ED, the largest portion of the population is aged 5-24 years reflecting 35.35% of the overall population which is slightly above the values for the State (26.44%). There are less people in Lucan-North ED aged 35-44 years (11.73%) when compared with FCC Jurisdiction (17.38%) and the State (15.43%).

Economic Activity and Employment

The labour force is defined as the number of people above the legal working age that are available to work. Table 5-15 shows the percentage of the population who were in the labour force during the 2022 census.

The number of people at work in Lucan-North ED (58.11%) is slightly higher than the average for FCC Jurisdiction (55.62%) and the State (56.09%). This corresponds to the above average number of people who are retired in Lucan-North ED (15.41%) when compared with FCC Jurisdiction (12.56%) and the State (15.90%). The number of people who are students within the Lucan-North ED (11.74%) is less than that of the Lucan-North ED (16.45%), but is in line with the FCC jurisdiction (11.5%) and

the State (11.10%) No other economic status in Castleknock-Knockmaroon ED differs from the average in the FCC Jurisdiction or the State by more than 3%.

Table 5-15: Economic Status

Principle Economic Status	Castleknock-Knockmaroon ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
At work	10292	62.73	788	58.11	15,506	55.62	2,320,297	56.09
Looking for first regular job	111	0.68	4	0.29	2,299	0.64	34,526	0.83
Short term unemployed	226	1.38	10	0.74	4,794	1.35	70,217	1.70
Long term unemployed	245	1.49	18	1.33	5,957	1.69	106,059	2.56
Student	1926	11.74	223	16.45	29,497	13.26	459,275	11.10
Looking after home/family	938	5.72	75	5.53	16,344	6.35	272,318	6.58
Retired	2247	13.70	209	15.41	32,219	18.00	657,790	15.90
Unable to work due to permanent sickness or disability	360	2.19	18	1.33	8,835	2.59	189,308	4.58
Other	62	0.38	11	0.81	1450	0.50	27,062	0.65
Total	16,407		1,356		256,458		4,136,852	

The closest social welfare office to the Proposed Development which has figures available for the number of people on the Live Register / Unemployed is Blanchardstown Intreo Centre which covers the following areas: All of Dublin 15, Ashtown, Ballycool, Blanchardstown, Blakestown, Clonsilla, Coolmine, Carpenterstown, Castaheany, Castleknock, Clonee (Dublin 15 only), Corduff, Damastown, Dunsink Lane (Dublin 15 only), Hartstown, Huntstown, Hollystown (Dublin 15 only), Kilbride (Dublin 15 only), Ladyswell, Mulhuddart, Ongar, Pelletstown, Phibblestown, Phoenix Park Racecourse, Porterstown, Rathbourne (Dublin 15 only) and Tyrellstown.

The Live Register is used to provide a monthly series of the numbers of people (with some exceptions) registering for Jobseekers Benefit or Jobseekers Allowance or for various other statutory entitlements at local offices of the Department of Social Protection. At the time of carrying out this baseline assessment, the most recent information available is from March 2025. Table 5-16 shows that the number of people on the live register remains relatively constant with numbers fluctuating between -5.08% and 3.48% over the previous 6 months.

Table 5-16 Live Register for Blanchardstown Intreo over the previous 6 months

Month	No. of people	Percentage change
2024 October	3,485	
2024 November	3,308	-5.08%
2024 December	3,440	3.99%
2025 January	3,442	0.06%
2025 February	3,562	3.49%
2025 March	3,438	-3.48%

Table 5-17 shows the industries the people of Lucan-North ED work in compared with FCC Jurisdiction and the State. The top three groups which account for 68.02 % of Lucan-North ED.

- Commerce and trade;
- Professional services; and
- Transport and communications.

Table 5-17 Industry in which people work

Industry	Castleknock-Knockmaroon ED		Lucan – North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Agriculture and forestry	15	0.15	9	1.14	1,092	0.70	82,228	3.54
Building and Construction	481	4.67	55	6.98	8258	5.33	134,482	5.80
Manufacturing Industries	775	7.53	62	7.87	11,189	7.22	273,102	11.77
Commerce and Trade	3,077	29.90	262	33.25	42,599	27.47	552,642	23.82
Transport and Communication	1,380	13.41	96	12.18	22,248	14.35	212,383	9.15
Public Administration	739	7.18	33	4.19	9,370	6.04	131,639	5.67
Professional Services	2,590	25.17	178	22.59	37,049	23.89	568,105	24.48
Other	1,235	12.00	93	11.80	23,258	15.00	365,716	15.76

Industry	Castleknock-Knockmaroon ED		Lucan – North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Total	10,292		788		155,063		2,320,297	

In relation education, 5-18 shows the highest level of education in Lucan-North ED compared with the FCC Jurisdiction and the State. The highest level of education in Lucan-North ED is Advanced certificate/Completed apprenticeship (22.14%) followed by Primary Education (16.56%), and no formal education (15.16%).

Table 5-18 Highest Level of Education Completed

Highest Level of Education Completed	Castleknock-Knockmaroon ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Postgraduate diploma or degree	143	1.08	4	0.37	202,630	1.66	379,416	11.21
Honours bachelor degree, professional qualification or both	320	2.42	19	1.77	9,576	4.73	450,523	13.31
Upper secondary	785	5.94	59	5.49	20,784	10.26	613,478	18.13
Ordinary bachelor degree or national diploma	1,998	15.13	143	13.30	38,007	18.76	272,535	8.05
Lower secondary	709	5.37	40	3.72	15,339	7.57	446,007	13.18
Higher certificate	534	4.04	41	3.81	10,678	5.27	187,488	5.54
Technical or vocational qualification	736	5.57	49	4.56	11,823	5.83	253,892	7.50
Not stated	1,381	10.46	122	11.35	18,726	9.24	220,311	6.51
Advanced certificate/Completed apprenticeship	2,779	21.04	238	22.14	30,919	15.26	190,268	5.62
Primary education	2,895	21.92	178	16.56	27,228	13.44	251,219	7.42
Doctorate (Ph.D) or higher	325	2.46	19	1.77	2,497	1.23	38,212	1.13

Highest Level of Education Completed	Castleknock-Knockmaroon ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
No formal education	602	4.56	163	15.16	13,685	6.75	81,280	2.40
Total	13,207		1075		202,630		3,384,629	

Deprivation Indices

In addition, the Pobal HP Deprivation Indices was reviewed for Lucan-North ED. The deprivation index and relevant information is included in Table 5-19 below.

Table 5-19: Pobal HP Deprivation Indices

Pobal Deprivation Indices	Lucan North ED
Pobal HP Index 2022	13.27
Pobal HP Description 2022	Affluent
Population 2022	1,765
Age Dependency Ratio 2022 %	35.86
Lone Parent Ratio 2022 %	5.16
Prop. Primary Education Only 2022 %	2.52
Proportion at Third Level Education 2022 %	66.45
Unemployment Rate - Male	3.75
Unemployment Rate - Female	4.09

The study area is described as being 'affluent' deprivation levels.

Human Health

Health, as defined by the World Health Organization (WHO), is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The Healthy Ireland Framework 2013-2025 defines health as 'everyone achieving his or her potential to enjoy complete physical, mental and social wellbeing. Healthy people contribute to the health and quality of the society in which they live, work and play'. This framework also states that health is much more than an absence of disease or disability, and that individual health, and the health of a country affects the quality of everyone's lived experience.

Health is an essential resource for everyday life, a public good and an asset for health and human development. A healthy population is a major asset for society and improving the health and wellbeing of the nation is a priority for Government. Healthy Ireland Framework 2013-2025 is a collective response to the challenges facing Ireland's future health and wellbeing.

Statistics for general health were assessed for the study area. Table 5-20 shows that 85.73% of people have self-identified themselves as having "very good" or "good" health.

Table 5-20 Health Status

General Health	Castle Knock ED		Lucan-North ED		FCC Jurisdiction		State	
	No. of People	%	No. of People	%	No. of People	%	No. of People	%
Very Good	12934	61.69	1162	65.84	182955	55.36	2,740,994	53.23
Good	5657	26.98	351	19.89	95307	28.84	1,527,027	29.66
Fair	1155	5.51	68	3.85	23659	7.16	444,895	8.64
Bad	197	0.94	10	0.57	3857	1.17	72,556	1.41
Very Bad	42	0.20	0	0.00	832	0.25	16,843	0.33
Not Stated	982	4.68	174	9.86	23896	7.23	346,824	6.74
Total	20,967		1765		330506		5,149,139	

Social Health

According to the World Health Organisation, poor social and economic circumstances affect health throughout life. Good health involves reducing levels of educational failure, reducing insecurity and unemployment, and improving housing standards. Health is influenced, either positively or negatively, by a variety of factors. Some of these factors are genetic or biological and are relatively fixed. 'Social determinants of health' arise from the social and economic conditions in which people live. They are not so fixed such as type of housing and environments, access to health or education services, incomes generated and the type of work people do, can all influence a person's health, and the lifestyle decisions people make.

A range of factors have been identified as social determinants of health. These can include the wider socio-economic context, inequality, poverty, social exclusion, socioeconomic position, income, public policies, health services, employment, education, housing, transport, the built environment, health behaviours or lifestyles, social and community support networks and stress.

People who are less well off or who belong to socially excluded groups tend to fare badly in relation to these social determinants. Being at work on the other hand provides not only an income, but also access to social networks, a sense of identity and opportunities for development or progression.

Figure 5-2 presents the social determinants of health adapted from Dalghren and Whitehead (1991) and Grant and Barton (2006) as presented in Healthy Ireland.

As aforementioned, 58.11% of people in Lucan-North ED are in the labour force / at work. This reflects the high number of people of a working profile living within the area which is expected due to the percent of people of a working age living in the area.

Amenities

Healthcare Facilities

The closest hospital to the site is Connolly Hospital Blanchardstown, located approximately 2.67km northeast of the site. BR Clinic and Healthwell Clinic are located approximately 355m from the site.

Education Facilities

The closest national school to the site is the Scoil Choilm Community National School located south of the site. The closest secondary school to the site is the Luttrellstown Community College located south of the site.

Sports and Recreation

There are a number of sports and outdoor facilities located in the vicinity of the Proposed Development including the Golf Course at Luttrellstown Castle, Castlenock Golf Club, Coolmine Sports and Leisure Centre. Additionally, there are a number of parks located in the vicinity of the Proposed Development including Beechpark, Porterstown Park and Coolmine Canal Banks Woods.

Receptor Sensitivity

The sensitivity of the local area and population as determined considering the above examination of the local area and population, and the IEMA Guide to Determining Significance for Human Health in Environmental Impact Assessment.

Table 5-21: Sensitivity Determination

Criteria	Classification	Category	Justification
Deprivation	Affluent	Very Low	The deprivation index for the area is described as “affluent”.
Resource Sharing	Sufficient	Low	It is considered that there will be sufficient resources in the area to share with the Proposed Development. Refer to section 5.5 for the potential impacts on water and traffic.
Inequalities	Moderate	Moderate	<p>The local area has a majority of “very good” or “good” health (85.73%), which is fairly homogenous. In addition, the majority of the population is “at work” (58.11%), with only 2.07% of the population in the study area being unemployed.</p> <p>The highest level of education in the area is Advanced certificate/Completed apprenticeship (22.14%).</p> <p>The number of persons with no formal education (15.16%) is higher in this area when compared with FCC Jurisdiction and the State.</p>
Community Outlook	Ambivalent	Low	The site is located on a greenfield site, surrounded by existing residential developments. It is expected that the local population would have a neutral outlook towards the Proposed Development.
Daily Activities	Slightly limited	Low	2.19% of the population identifies as being unable to work due to permanent sickness or disability.
Care Taking	Some care required	Low	With 2.19% of the population being unable to work due to permanent sickness or disability, it is expected that some care is required or being provided for within the study area.
Dependencies	Independent	Very Low	The age dependency ratio for the study area is 32.84%, which is lower than the national average of 53.2%.

Criteria	Classification	Category	Justification
Health Status	Very good	Very Low	The majority of the population (61.69%) identified as having “very good” health. 26.98% of the population identified as having “good” health.
Adaptability	High capacity	Very Low	It is expected that the Proposed Development will not have an adverse effect on service quality for the resident population.
Overall Sensitivity		Very Low	

5.4 Characteristics of the Proposed Development

The characteristics of the Proposed Development are detailed below. For further information refer to the Project Description chapter 3 of the EIAR.

5.4.1 Proposed Development– Plot 1 (Luttrellstown Gate Phase 2)

Castlethorn Developments Luttrellstown Limited intends to apply for Permission for a development at a site (c. 3.72ha) at lands in the Townland of Kellystown.

The proposed development comprises 99no. residential units in a mix of houses and duplex units consisting of 71no. 2 storey houses (66no. 3-bedroom and 5no. 4-bedroom), 16no. 3 storey houses (16no. 4-bedroom), 4no. 1-bedroom duplex units and 8no. 2-bedroom duplex units and all associated and ancillary site development and infrastructural works, hard and soft landscaping and boundary treatment works, including public open space; public lighting; surface car parking spaces; bicycle parking spaces/stores for mid-terrace units; bin stores. The proposed development includes a minor amendment to development permitted under Reg. Ref. ABP-312318-21, as amended by Reg. Ref. LRD0034-S3, with minor adjustment proposed to the permitted surface water attenuation pond. Vehicular access to the proposed development is provided by the road network permitted under Reg. Ref. ABP-312318-21, as amended by Reg. Ref. LRD0034-S3.

5.4.2 Proposed Development- Plot 2 (St. Mochta’s LRD).

Castlethorn Developments Luttrellstown Limited intends to apply for Permission for a development at a site (c. 4.38ha) at lands in the Townland of Porterstown.

The proposed development comprises 302no. residential units in a mix of houses, duplex and apartment units consisting of 62no. 2 storey, 3-bedroom houses and 35no. 3 storey, 4no. bedroom houses; 205no. Duplex / Apartment Units (98no. 1-bed, 88no. 2-bed and 19no. 3-bed) across 4no. blocks comprising: Block D ranging in height from 5-7 storeys accommodating 57no. apartment units; Block E ranging in height from 5-7 storeys accommodating 77no. apartment units; Block F ranging in height from 4-5 storeys accommodating 39no. apartment and duplex units; Duplex Blocks G1, G2, G3 & G4 3 storeys in height accommodating 32no. apartment units; and all associated and ancillary site development and infrastructural works, hard and soft landscaping and boundary treatment works, including public open space; public lighting; surface car parking spaces; bicycle parking spaces/stores for mid-terrace units; bin stores. Vehicular access to the proposed development is provided by the road network permitted under Reg. Ref. ABP-312318-21, as amended by Reg. Ref. LRD0034-S3.

5.4.3 Cumulative Schemes

A number of cumulative schemes have been considered as a part of the assessment.

These schemes include:

1. The consented Kellystown SHD scheme ABP-312318-21 was granted (with 27no. conditions) on 2 March 2023, under section 9(4) of the Planning and Development (Housing) and Residential Tenancies Act 2016 for a Strategic Housing Development. The consented scheme includes 346no. dwellings (123no. houses and 3no. apartment buildings accommodating 223no. apartment units), 1no. childcare facility (c. 528 sq m) and 1no. retail unit (c. 236 sq m), in buildings ranging from 2 to 8-storeys, and associated site works and 2.1ha public park amenity. The overall gross site area of the entire consented scheme amounts to c. 9.73 ha, at land zoned 'RS' residential, in Eastern Development Area 1 and land zoned 'OS' open space to the south of permitted Kellystown Link Road. The site is otherwise generally bounded by the existing Kellystown Link Road and schools to the south; the Old Porterstown Road and existing St Mochta's FC grounds to the east; Dr Troy Bridge/L3036 Porterstown Link Road also to the east; the Dublin Maynooth rail line and Grand Canal to the north and undeveloped (Luttrellstown Gate) lands to the west.
2. Amendments to the consented SHD scheme ABP-312318-21 was granted on 21 August 2024 under Reg. Ref. LRD0034-S3 for development comprising of the reconfiguration of Block A, located in the eastern corner of the site, to accommodate 193no. dwellings in total (an increase of 28no. dwellings) in buildings ranging between 2 and 8 storeys in height, with the following residential unit mix: 82no. 1-bed apartment units, 108no. 2-bed apartment units, and 3no. 2-bed duplex units. Associated reconfiguration of internal floor plans to accommodate an increase from 31no. to 34no. apartment units per floor. Reduced floor area of the internal residential amenity area (from c.405.7 sq m to c.120.9 sqm). Reduced floor area of the retail unit (from c.236 sq m to c.200.6 sq m). And all associated and ancillary site development, infrastructural, hard and soft landscaping and boundary treatment works.
3. A live planning application, currently at Further Information Stage under FW25A/0033E seeks the relocation of St. Mochta's Football Club grounds, to 'OS' zoned lands to the south of Kellystown Link Road and north of the Cemetery lands and Luttrellstown Road, within the new emergent residential neighbourhood of Kellystown, Dublin 15. This is in accordance with Key Objective DA 1.1 for the Eastern Development Area of the Kellystown Local Area Plan
4. In November 2020, Fingal County Council published proposals for the development of a link road through the Kellystown lands for public consultation, under the Part 8 development process. Note that the consented Kellystown SHD scheme ABP-312318-21 includes the extension of the 'Kellystown Link Road' west from its existing section serving the school campus and cemetery lands. A single new vehicular access point to residential development in the Kellystown Eastern Development Area extends north from the 'Kellystown Link Road', under SHD ABP-312318-21. Upgrade works to the existing segment of the 'Kellystown Link Road' and its junctions with Porterstown Road and Diswellstown Road/Overbridge are also included in the Kellystown SHD permission.

Additionally, there are two live planning applications within the wider area of the site that have also been included which include:

- ABP Reg. Ref. 320886-24 (FCC Reg. Ref. LRD0021/S3E) (north of the Dublin-Maynooth Railway Line) issued with a Grant of Permission on 21 January 2025 for the construction of 170 residential units, a café, and a childcare facility, and all associated development works including the demolition of structures, site clearance, and ground levelling.
- ABP Reg. Ref. 315707-23 (FCC Reg. Ref. FW22A/0152) (north of the Dublin-Maynooth Railway Line) issued with a Grant of Permission on 19 December 2023 comprises the construction of a mixed use retail and residential development comprising 1no. food store (2,500sqm GFA), 3 no. retail units (611.8sqm GFA) and 67 no. residential units.

5.5 Potential Impact of the Proposed Development

The potential impact of the Proposed Development on Plot 1 and Plot 2 are considered to be the same and are outlined below.

5.5.1 Construction Stage

Population demographics

The construction phase will create short term construction related employment and on average, there will be an estimated total of 100-120 employees during construction across the two sites which would potentially increase to 180 workers in total at peak times. Due to the fact that employees may either be already resident in the local area or may travel to and from the site from surrounding towns, the effect on population demographics has been assessed at a county level.

Based on the mobile nature of construction and the baseline population assessment, the likely effect on population demographics as result of the Proposed Development will be direct, short term and imperceptible.

Socio-economic

The Construction Phase will create short term construction related employment and on average, there will be a maximum of 180 employees during construction over a period of 18 months for Luttrellstown Gate Phase 2 and 48 months for St Mochtas LRD. This is an average number of employees and in practise the number will vary across the construction period depending on the type and intensity of construction activities. Employment creation will have a direct effect on the local economy but also an indirect effect through daily spending by employees in local businesses.

Due to the fact that employees may either be already resident in the local area or may travel to and from the Site from surrounding towns, the socio-economic effect has been assessed at both a local scale and a county level.

Based on the mobile nature of construction and the baseline assessment of economic activity, the likely effect on the economy on a local scale will be both direct and indirect, short term positive and imperceptible. At a county scale, the likely effect on the economy will be both direct and direct, short term, positive and imperceptible.

Water Quality

During the construction phase there is potential for demolition, excavation and construction works to effect ground water and surface water quality. Surface water runoff with cementitious materials used during the construction of foundations, pavements and other structures, suspended solids or other potentially deleterious materials could enter the underlying groundwater at the site.

Surface water runoff will be managed during the construction phase to ensure there will be no direct discharge to groundwater or surface water. The mitigation measures outlined in Chapter 8 Hydrology and Hydrogeology of this EIAR combined with the mitigation measures within the Construction Environmental Management Plan (CEMP) will ensure that there will be no significant effect on the receiving groundwater and surface water environment.

The effect of the Proposed Development on water quality and human health will be neutral, imperceptible and short term.

Air Quality and Climate

The greatest potential impact on air quality during this phase is from construction dust emissions and the potential for nuisance dust. Construction vehicles and machinery during the Construction Phase

will also temporarily and intermittently generate exhaust fumes and consequently potential emissions of volatile organic compounds, nitrogen oxides, sulphur oxides, and particulate matter (dust). Fine particles from these sources are recognised as a potential significant cause of pollution and can be damaging to the health of the surrounding population during the Construction Phase.

According to the Health Service Executive (HSE), the health effects associated with the main pollutants of concern are:

- Nitrogen Dioxide, Sulphur Dioxide, Ozone - Irritate the airways of the lungs, increasing the symptoms of those suffering from lung diseases.
- Particles (PM10, PM2.5) - Can be carried deep into the lungs where they can cause inflammation and a worsening of heart and lung diseases.
- Carbon Monoxide - Prevents the uptake of oxygen by the blood and poses a greater risk to those suffering from heart disease.

There are several high-sensitivity receptors located within 50m of the site boundary; these are mainly situated to the south and east including Scoil Choilm Community National School and residential developments. There are also a number of residential developments located to the north of the site. Chapter 9 Air Quality concludes that there is at most a low risk of human health effects associated with the works at the two sites (Plot 1 and Plot 2). Best practice dust mitigation measures appropriate for high-risk sites will be implemented to ensure there are no significant effects at nearby sensitive receptors.

Appropriate mitigation and monitoring measures have been recommended in Chapter 8 Air Quality and the CEMP and the and will be implemented at the site in order to minimise the risk of dust emissions arising during construction and demolition.

Construction traffic is not expected to result in a significant change in AADT flows near to sensitive receptors and according to IAQM guidance are unlikely to have a significant effect on local air quality.

Based on the above, the likely effect of air quality on population and human health will be negative, short term and slight.

Noise and Vibrations

Noise exposure can cause a variety of human health effects including annoyance, sleep disturbance, raised stress levels, work impacts for commercial receptors or individuals who work from home. Noise generating activities associated with the Construction Phase have been identified in Chapter 12 Noise and Vibrations of this EIAR and include vehicular traffic as well as noise from the operation of fixed or mobile machinery onsite. During the Construction Phase all operations will comply with the BS5228:2009 "Noise and Vibration Control on Construction and Open Sites".

Typical working hours for the site will be subject to the condition of the planning permission but are expected to be Monday to Friday from 7am to 7pm and Saturdays from 7am to 2pm. Special construction operations may need to be carried out outside these hours to minimise disruption to the surrounding area, which will be subject to agreement with the Local Authority. No activities will be permitted onsite outside of these hours unless by prior agreement with the Local Authority. These set working hours will minimise the short-term noise impacts on the surrounding population.

Traffic and Transport

There is potential for construction traffic to impact the surrounding population and human health by causing congestion on the local road network. A series of traffic control measures will be implemented during the construction phase to ensure any potential impacts on the adjacent local and strategic road network are minimised. Construction vehicles and HGVs will be restricted to using only the approved means of access and movement of construction vehicles will be restricted designated routes. The likely traffic impact of the construction works will be negative, short-term and slight.

Landscape and Visual Impact

During the Construction Phase the Site landscape will undergo a change which will have a visual impact. This will potentially impact on the visual amenity of the nearby visual receptors. These landscape impacts will reduce rapidly with distance from the site boundaries, and intervening hedgerows, open park spaces, and existing buildings will further reduce the impacts to minor to negligible, negative and short term for the Construction Phase.

It is concluded that the Proposed Development will, therefore, have a minor, negative and short to medium-term impact on the landscape character of the Site during the Construction Phase.

5.5.2 Operational Stage

Population demographics

The Proposed Development will provide a large number of residential units between both plots and will cater for a wide range of people including families, older persons and young couples. In relation to the existing population and the baseline demographic assessment completed in Section 4.3, the Proposed Development will have a neutral, long term and slight effect on population demographics.

Both plots will result in a sizeable addition to the study area. This is considered to have a positive, long-term effect on population and human health particularly in the context of current housing demand, while also taking account of the location's access to high quality public transport and places of employment.

Socio-economic

The Proposed Development will provide a large number of residential units between both plots and result in an increase in the population of the surrounding area.

Water Quality

There will be no significant sources of contamination during the operational phase. Chapter 8 Water of this EIAR has concluded that there would be a 'negative' and 'imperceptible' effects to the quality of receiving hydrological receptors over a range of durations from short-term to long-term.

Based on the implementation of the mitigation measures outlined in Chapter 8 Water the likely effect on water quality and subsequently human health will be direct, long term, negative and imperceptible.

Air Quality and Climate

The greatest potential effect on air quality during the operational phase is from traffic-related air emissions. Chapter 9 Air Quality and Climate notes that overall, the ambient air quality and human health effects associated with the proposed development, in the operational stage according to the EPA guidelines (EPA, 2022) are considered to be direct, long-term, negative and not significant.

Based on the above assessment the likely effect of the Proposed Development on air quality and climate and subsequently human health will be direct, long term, negative and imperceptible.

Noise and Vibrations

Noise associated with traffic movements and operational phase activities can negatively impact the population and human health of the surrounding residents. Noise sensitive receptors have been identified as primarily residential properties and have been listed in Chapter 12 of this EIAR. The main noise sources for the operation of the new developments are anticipated to be vehicles using the car park, heavy goods vehicles (HGV) movements, plant and equipment noise and operational noise from the loading and unloading of HGVs.

Noise is fully assessed in Chapter 12 of this EIAR. The residential aspect of the development is not expected to generate any significant noise sources over and above those which form part of the existing environment at neighbouring residential areas (estate vehicle movements and children playing) and hence no significant effects are expected from this area of the site.

The impact assessment of noise and vibration has concluded that during the operational phase the predicted residual effect during the construction phase ranges from imperceptible – slight and are neutral and short term. During the operational phase post mitigation the residual effect is considered to be neutral, imperceptible and long-term.

Based on the above assessment the likely effect of the Proposed Development on noise and vibration and subsequently human health will be long term, neutral and imperceptible.

Traffic and Transport

Chapter 14 Transportation concludes that during the construction phase the residual effect of the proposed development will be temporary and minimised.

Additionally, during the operational phase, it was concluded that that all assessed junctions, operating with improved layouts as proposed as part of the subject application, would operate within the capacity and the impact arising from the proposed development would be considered negligible.

It is therefore considered that the likely effect of the Proposed Development on the surrounding road network and subsequently human health will be slight during the construction phase, and negligible during the operational phase.

Landscape and Visual Impact

The potential landscape and visual effects of the Proposed Development are fully assessed in Chapter 13 of this EIAR. The Proposed Development has the potential to cause visual impact during the Operational Phase. The site is currently predominately greenfield and a football pitch. The surrounding area is predominantly residential and greenfield.

Chapter 13 concluded that it is considered that the proposed development is in accordance with the various landscape and visual objectives, policies and land use zonings pertaining to the site and as set out in the Fingal County Development Plan Objectives relating to Kellystown.

It is therefore considered that the likely effect of the Proposed Development on Landscape and visual and subsequently human health is considered to be not significant.

5.5.3 Potential Cumulative Effects

The list of cumulative schemes has been detailed in Chapter 3 of this EIAR. It is not considered that the Proposed Development will act in combination or cumulatively with any existing or approved projects in the surrounding area. Refer to Chapter 3 for further information.

5.5.4 Do-Nothing Impact

If the Proposed Development did not proceed, the site would remain as a greenfield site and a football pitch and there would be no immediate impact on the existing population or economic activity in the area. This would be an under-utilisation of zoned and serviceable lands from a planning and development perspective.

5.5.5 Magnitude of Effects

The magnitude of effects was determined using the IEMA EIA Guide to Determining Significance for Human Health in Table 5-22 below.

Table 5-22 Magnitude of Effects

Criteria	Classification	Category	Justification
Scale	Local	Low	The scale of effects is considered to be on a local scale.
Duration	Permanent	High	The Proposed Development is seeking permanent planning permission. Therefore, any effect caused by the Proposed Development will be permanent.
Frequency	Moderate	Medium	During the operational phase, it is expected that any potential effects will be frequent.
Quality of Life	Minor change	Negligible	The Proposed Development will result in a minor change in quality-of-life for the surrounding area. With the mitigation measures proposed, the effect of the Proposed Development is considered to be not significant.
Population Affected	Few	Low	There are sensitive receptors located in proximity to the sites.
Reversibility	Gradual	Low	The Proposed Development is relatively reversible through remediation works.
Service Quality Implications	None	Negligible	There will be no service quality implication as a result of the Proposed Development.
Overall Magnitude		Low	

5.6 Mitigation Measures (Ameliorative, Remedial or Reductive Measures)

This section refers to both plots of the Proposed Development.

5.6.1 Construction Stage

No specific mitigation measures are required during the Construction Phase in relation to population and human health, given the lack of direct, adverse effects resulting from the Proposed Development. However, mitigation measures in relation to air emissions, noise, traffic, and waste are identified in their respective chapters in this EIAR.

5.6.2 Operational Stage

No specific mitigation measures are required during the Operational Phase of the Proposed Development in relation to population and human health, given the lack of direct, adverse effects resulting from the Proposed Development. However, mitigation measures in relation to air emissions, noise, traffic, and waste are identified in their respective chapters in this EIAR.

5.6.3 “Worst Case” Scenario

In the event that mitigation measures fail to minimise and / or prevent potential adverse effects, the following possibilities may occur:

- An increase in traffic within the surrounding roads and junctions of the Site.
- An increase in noise caused during the Construction Phase can cause a disturbance to any residential dwellings in close proximity to the Site.
- An increase in the production of dust during the construction phase that can be carried throughout the Site and create adverse effects on the neighbouring environment.

However, it is imperative that such mitigation measures are implemented to ensure that the worst-case scenario does not occur. When considering the mitigation measures that will be in place, the event of a worst-case scenario is deemed to be unlikely.

5.7 Residual Impact of the Proposed Development

This section refers to both plots of the Proposed Development.

5.7.1 Construction Stage

Residual Impacts are defined as *“effects that are predicted to remain after all assessments and mitigation measures”*. Based on the fact there are no mitigation measures proposed for population and human health, the residual impacts will be the same as those detailed in Section 4.5 of this chapter.

Construction stage residual effects are outlined in Table 5-23 below. These are applicable to both Plot 1 and Plot 2.

5.7.2 Operational Stage

Residual Impacts are defined as *“effects that are predicted to remain after all assessments and mitigation measures”*. Based on the fact there are no mitigation measures proposed for population and human health, the residual impacts will be the same as those detailed in Section 4.5 of this chapter.

Operational stage residual effects are outlined in Table 5-23 below. These are applicable to both Plot 1 and Plot 2.

5.7.3 Cumulative Effects

A number of cumulative schemes were considered as outlined in section XXX above.

Cumulative impacts often arise due to potential pollution and nuisance during the construction phase in the absence of mitigation measures. However, good construction management practices, as outlined within the CEMP and RWMP will minimise the risk of pollution from construction activities at the site. Due to the full implementation of management controls to avoid adverse environmental impacts from the current Proposed Development and the permitted off-site projects, it is not expected that cumulative effects from these developments are likely to result in significant adverse effects on the population and human health.

During the operational phase, it is not expected that the proposed development will have a cumulative effect, together with the cumulative schemes, on the surrounding environment

Table 5-23: Residual Effects

Activity	Receptor	Predicted Impact	Quality	Significance	Duration	Type	Mitigation Measures	Residual Effect
Construction Phase								
Construction phase noise	Noise Sensitive Locations	Noise impacts	Neutral	Slight	Short term	Direct	Mitigation measures proposed in Chapter 12.	Slight
Construction phase related traffic	Sensitive Receptors	Air quality impacts Nuisance	Negative	Slight	Short term	Direct	Mitigation measures proposed in Chapter 9 and CEMP.	Slight
Construction Phase Employment	Study Area	Local Employment	Positive	Slight	Short term	Direct	N/A	Slight
Operational Phase								
Operational phase noise	Noise Sensitive Locations	Noise impacts	Neutral	Imperceptible	Long term	Direct	Mitigation measures proposed in Chapter 12.	Imperceptible
Operational phase related traffic	Receptors within 250m	Air quality impacts	Negative	Negligible	Medium to long term	Direct	Mitigation measures proposed in Chapter 9.	Imperceptible
Operational phase related traffic	Noise Sensitive Receptors (listed in Chapter 9)	Noise impacts	Negative	Low	Medium to long term	Direct	Mitigation measures proposed in Chapter 12.	Slight

5.8 Monitoring

This section refers to both plots of the Proposed Development.

5.8.1 Construction Stage

No specific monitoring is proposed in relation to population and human health during the construction or operational phase.

5.8.2 Operational Stage

No specific monitoring is proposed in relation to population and human health during the construction or operational phase.

5.9 Difficulties Encountered

The conclusions made in this chapter are based on available information. Consideration has been given to the halting site located in close proximity to the sites, and there is the possibility that the 2022 Census does not fully capture the statistics of the people located at the halting site.