12.0 MATERIAL ASSETS

12.1 Introduction

This Remedial Environmental Impact Assessment Report [rEIAR] has been prepared to accompany a substitute consent application for an existing quarry at Windmillhill, Rathcoole, Co. Dublin.

This chapter of the rEIAR has been prepared by Golder Associates Ireland Ltd (Golder) and addresses the direct and indirect significant effects, if any, on material assets located in the vicinity of the Site, which have occurred or which are occurring or which can reasonably be expected to occur because the Development the subject of the application for substitute consent was carried out.

The following material assets assessment was prepared by Kevin McGillycuddy (BA (Mod), MSc). Kevin is a Practitioner Member of the Institute of Environmental Management and Assessment and has more than 8 years' experience in environmental consultancy.

Material assets comprise the physical resources in the environment, which may be of human or natural origin. The objective of the assessment contained in the following sections is to ensure that these assets have been used in a sustainable manner with respect to operations at the Site.

Material Assets in the vicinity of the Site comprise of built services and infrastructure, such as surface water drainage, roads, traffic, telecommunications, electricity, gas and water supply infrastructure and geological resources.

Other material assets include roads and traffic, which have been assessed in Chapter 11 of this rEIAR. Please refer to Chapter 8 (Noise and Vibration) for the assessment of potential effects of blasting and vibration on neighbouring dwellings.

12.2 Legislative Requirements

Annex IV of the amended EIA Directive (2014/52/EU) requires that the developer provides a description of the factors (specified in Article 3(1)) which are likely to be significantly affected by the project, including a study of the potential impacts to material assets.

The 2014/52/EU Directive was transposed into Irish law through European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) which amended the Planning and Development Act, 2000, and the Planning and Development Regulations, 2001. This rEIAR has been produced in accordance with these relevant legislative requirements and Statutory Instruments.

12.3 Assessment Methodology and Significance Criteria

12.3.1 Technical Scope

This assessment has been made with guidance from the 'Guidelines on the information to be contained in environmental impact assessment reports', published in 'draft' by the EPA in August 2017. The guidelines were drafted by the EPA with a view to facilitating compliance with EIA Directive (2014/52/EU).

The 2017 EPA draft guidelines suggest the following subheadings under which to arrange issues concerning 'Built Services'; *"Electricity, Telecommunications, Gas, Water Supply Infrastructure, Sewerage".*

The assessment also considered 'Advice Notes for Preparing Environmental Impact Statements', also published in 'draft' by the EPA in September 2015.

Having regard to the above guidance, particularly the 2017 EPA draft guidelines, and the characteristics and context of the lands that are the subject of this application, this rEIAR chapter aims to identify the likely significant effects that the Development may have on 'built services' and these are discussed under the following headings:

- Electricity network utilities;
- Gas infrastructure;
- Telecommunications;
- Local water supplies and foul water network;
- Surface water drainage infrastructure;
- Waste management infrastructure; and
- Geological resource.

12.3.2 Prediction of Impacts and Effects Prior to Mitigation

This chapter of the rEIAR describes the likely significant direct effects of the Development on the material assets in the surrounding environment. The potential indirect/secondary, cumulative, do-nothing, worst case, indeterminable, irreversible, residual, and synergistic effects of the Development are also described, where appropriate. The extent, context and frequency of effects has also been considered in the assessment process.

Prediction methods are required to identify and assess the significant effects of the Development on the environment. The predictive method used for this assessment is a common framework of assessment criteria and terminology based on the EPA's draft Guidelines on the Information to be Contained in EIARs (EPA, 2017)[1], with some adjustments to improve clarity.

This common framework follows a 'matrix approach' to environmental assessment which has been presented in Chapter 1(Introduction) of this rEIAR.

12.3.3 EIA Significance Terminology

As identified in Chapter 1 (Introduction) of this rEIAR, a common framework of assessment criteria and terminology has been used based on the EPA's draft Guidelines on the Information to be Contained in EIARs (EPA, 2017). This common framework follows a 'matrix approach' to environmental assessment which is based on the characteristics of the impact (magnitude and nature) and the value (sensitivity) of the receptor.

The assessment reported below is based on the common framework described in Chapter 1 of this rEIAR. It has been assumed that the value (sensitivity) of the material assets is no greater than **Medium**, which equates to 'Medium or high importance and rarity, regional scale, limited potential for substitution' (see Table 1.4 of Chapter 1). This sensitivity has been assumed given the importance of the assets to users surrounding the Development, and their sensitivity to potential disruption from the impaired use.

A description of the significance categories used is provided in Table 12.1. Effects that are either **Large or Profound are considered to be Significant**, and **effects that are Moderate, Slight or Imperceptible are considered to be Not Significant**. How the level of effect is determined, based on the environmental value and magnitude of impact, is explained in Table 1.6 of Chapter 1.

Table 12.1: Significance categories and typical descriptions.

Significance Category	Typical Description
Profound	An effect which obliterates sensitive characteristics.

[1] Environmental Protection Agency (2017) Guidelines on the information to be contained in Environmental Impact Assessment Reports, Draft, August 2017

Significance Category	Typical Description
	Only adverse effects are usually assigned this level of significance. These factors are key issues in the decision-making and consent process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance which are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also be included in this significance category.
Large	An effect which, by its character, magnitude, duration or intensity alters a significant proportion of a sensitive aspect of the environment. These can be beneficial or adverse effects and are considered to be very important issues which are likely to be substantial in the decision-making process.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends. These are beneficial or adverse effects which may be important but are not likely to be central to decision-making or consent. The cumulative effects of these factors may influence consent or decision-making if they should lead to an increase in the overall adverse effect on a particular resource or receptor.
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities. These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the project.
Imperceptible	An effect capable of measurement but without significant consequences. No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

12.3.4 Information Sources

Information for the assessment of potential impacts on the identified material assets was obtained by means of a desk-based review, and included the following sources:

- ESB network utility plans;
- Gas Networks Ireland utility plans;
- Eir CYBD mapping;
- Irish water utility mapping;
- Field surveys of the Application Site;
- Department of Communication, Climate Action and Environment (DCCAE) Eircode maps; and
- Aerial and ordnance survey maps of the area.

12.3.5 Temporal Scope

As identified in Chapter 1, the original EIA Directive (85/337/EEC) was transposed into Irish Law through the Planning and Development Act, 2000 as amended (P&D Act), and the appointed day at which the requirement

for the same arose was 01 February 1990. Therefore, the baseline for this rEIAR has been set to 01 February 1990, and the rEIA process has assessed environmental impacts from that date to the present.

This assessment period equates to 31 years and is identified in the EPA's draft 2017 guidelines as 'long-term' duration (those lasting fifteen to sixty years).

12.3.6 Geographical Scope

The assessment directly covers the physical extent of the rEIAR study boundary for the Site as shown in Figure 13.1, and the assessment area has been extended as appropriate to identify the relevant material assets surrounding the Development.

In the assessment of cumulative impacts the geographical extent of the rEIAR has been extended as appropriate to includes the relevant related or unrelated development activities.

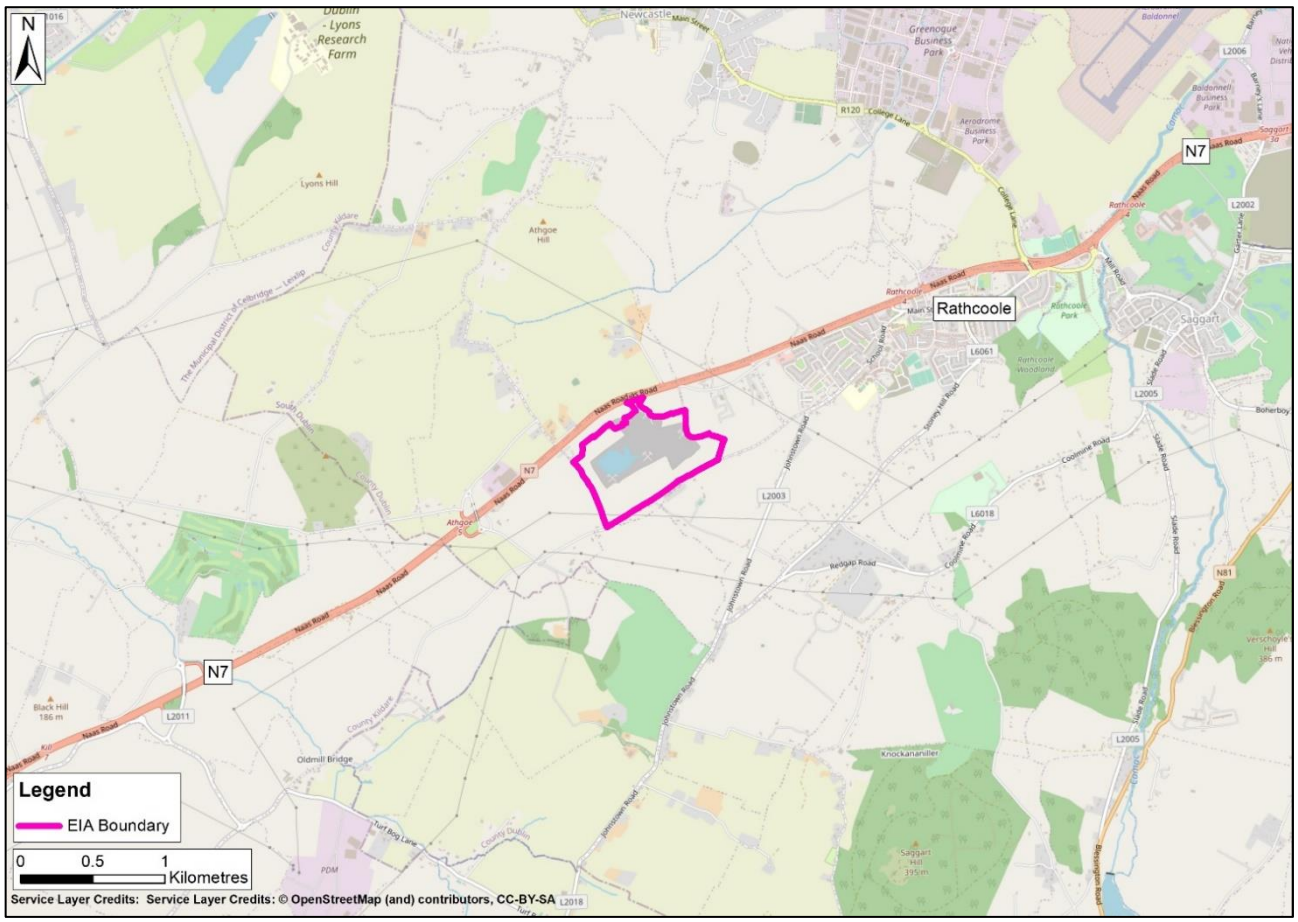


Figure 13.1: rEIAR Study Boundary

12.4 Baseline

12.4.1 Surrounding Environment

The Site is an active quarry located in south county Dublin, east of the border with Co. Kildare. The Site is located within the townland of Windmill Hill and located directly south of the N7 Dublin to Limerick road, ca. 2 km of the southwest of Rathcoole. The L6065 local road runs along the southern boundary of the Site.

The lands surrounding the Site to the north, west and south can be characterised as rural in nature, with land uses in the area being agricultural and single-house residential. Dry cattle, sheep rearing and grazing of horses are the main activities in the area, with further arable activities to the south-west. Suburban development has

extended from more built up areas of Rathcoole along the N7 towards the east of the Site. The nearest school and church to the Site is located within Rathcoole ca. 2 km to the east of the Site.

The rural nature of the surrounding area with suburban influences to the east was relatively consistent from the period of 1990 to the present. In the latter part of that period residential development towards the east in Rathcoole has increased.

Figure 12.2 and Figure 12.3 provide aerials of the subject Site close to the beginning of the assessment period February 1991) and the approximate current layout of the Site (October 2020), respectively. The area imaged in the 1991 aerial was constrained to the immediate area surrounding the Development, and therefore this assessment assumes the number of receptors surrounding the Development in 1991 was the same as that in 1994, as a worst case.

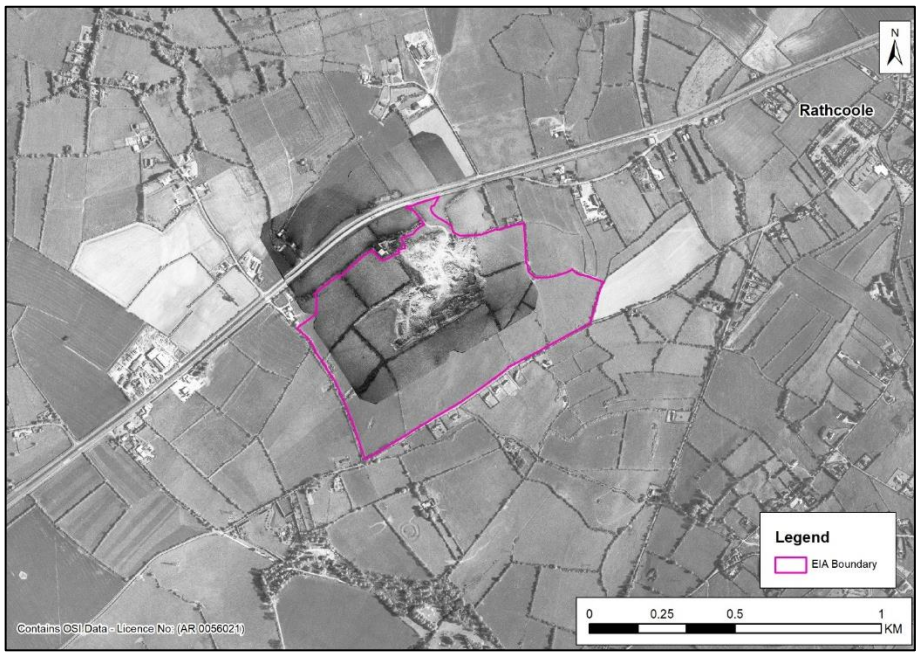


Figure 12.2: rEIAR Study Boundary and 1991 (site centre), and 1994 (site surrounds, map base) Aerials.

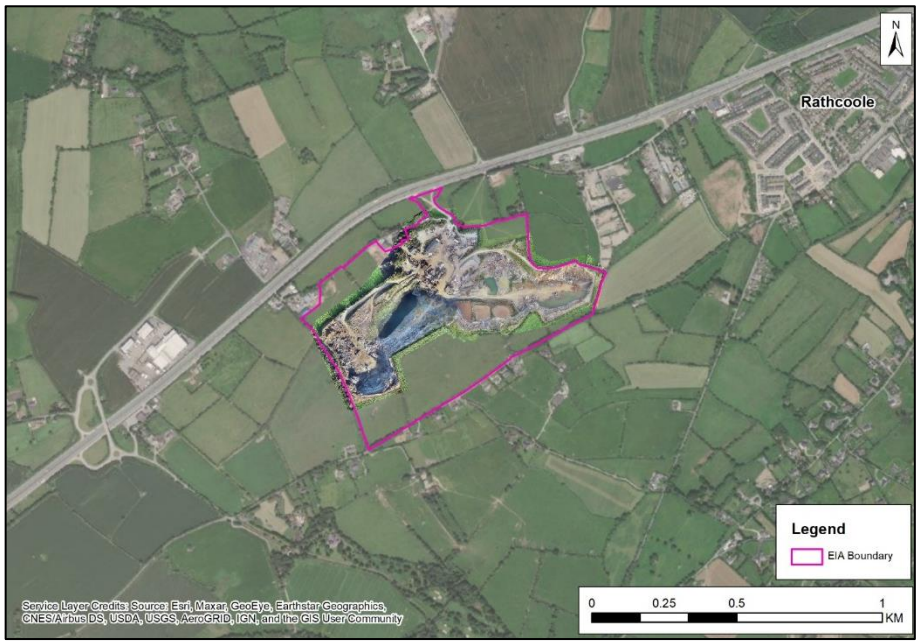


Figure 12.3: rEIAR Study Boundary and 2020 Aerial.

12.4.2 Electricity Network Utilities

A service map was received from the ESB Networks

A service map was received from ESB Networks on 04 February 2021 detailing both the layout of underground and overhead ESB lines on-site and in the locality. The received service maps have been provided in Appendix 12.1 of this chapter.

The service maps provided by ESB indicate that the Site (office and plant area) is connected to the grid by an underground medium/low voltage cable (10KV/20KV/400V/230V) which is connected to a transformer linked to medium voltage overhead power lines (10KV/20KV) which enters the Site from the north.

Premises around the Site are serviced by medium and low voltage overhead lines which traverse the area to the west, east, south and north.

An overhead 110KV line traverses the south western corner of the quarry area of the landholding and the lands.

12.4.3 Gas Infrastructure

A service map was received from Gas Networks Ireland (GNI) on 10 November 2020 detailing the gas network in the area. There is a medium-pressure distribution pipe (180 PE-80 4 bar) located just outside northern section of the Site, between the boundary of the rEIAR study area and the N7 Dual Carriageway.

GNI were consulted regarding the Application and identified the nearest extremity of the quarry to a transmission pipeline is some 1,800 m away from a transmission pipeline.

The service map indicates that no other gas pipelines are found within the area and no premises in the surrounding area are serviced by GNI infrastructure.

These GNI service routes have been included in Appendix 12.2.

12.4.4 Telecommunications

Service maps have been sourced (10 November 2020) from the Eir online mapping request portal and have been redrawn to an appropriate scale for reporting purposes, (Figure 12.4).

Trenched underground services are routed along the N7 to the north, while underground and overground services run along the local road to the south of the Site (L6065). These lines service the ribbon residential developments situated adjacent to them.

A private mast has been in place to the south of the Site along the southern boundary of the pit and was noted by the applicant to have been installed in ca. 1991. The Applicant notes that this mast serves internet to the Site and some users in the Rathcoole and Saggart area. The mast is serviced by Ripplecom and powered by electrical infrastructure along the L6065 local road.

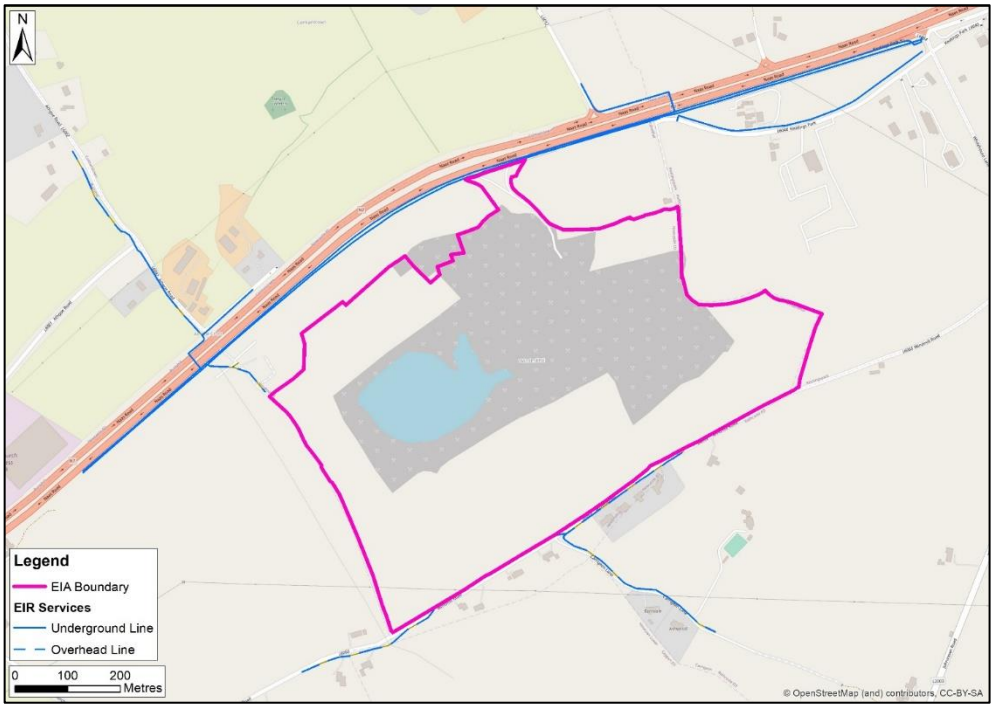


Figure 12.4: Under and Overground EIR services surrounding the Development.

12.4.5 Local Water Supplies and Foul Water Network

Public mains connection services are not connected to the office plant area onsite. Water is abstracted from groundwater wells on the Site. The use of groundwater at the Site has been in existence for decades and at least pre-1990. The wells services the welfare facilities at the Site office, and bottled water is used for drinking.

The Liffey aqueduct water main tracks along the northern section of the Site, the map in Appendix 12.3 displays this route. The Irish Water maps indicate this main has been in place since 1940 and before this assessment period (1990-2021).

Foul water from staff facilities does not discharge to the South Dublin County Council sewerage infrastructure services. It is instead collected onsite in a holding tank and in portable lavatories. These wastes are subsequently collected and removed from Site by contractors. This has remained the practice on Site for the assessment period.

A potable water network, operated by Irish Water serves the residential premises to the east of the Site in Rathcoole. A service layout has been provided in Appendix 12.3. The Irish Water Service mapping indicates that ribbon residential developments on the L6065 to the south of the Site are not connected to mains water services, instead abstracting potable water from wells.

Sewerage services at the same dwellings are covered by independent septic tank systems.

12.4.6 Surface Water Drainage Infrastructure

Lands within the Site are dominated by rock extraction areas, recolonising bare ground and improved grassland fields. Currently the surface water infiltrates through the underlying soils and sub-soils.

There are no existing public surface water drainage networks within the Site.

During periods of higher rainfall any pumped water that is not used as part of the washing plant activities, or temporarily stored in the water tank, is allowed to discharge to a culvert located adjacent to the Site entrance. Overflow from the water tank is returned to the flooded pit area if necessary. A drainage survey of the culvert used for discharge was carried out in 2021 and identified a piped flow path north towards the N/M7 dual

carriageway, where it joins the roadway drainage system. The discharge culvert is not in connectivity with the Irish Water public supply mains which runs through the Site boundary near the entrance.

12.4.7 Waste Management Infrastructure

Small amounts of general refuse waste are generated by the site office and staff portacabin facilities. These are collected on Site and transported to local permitted and licenced waste facilities. These waste streams are recycled or disposed, as appropriate, by a licensed waste contractor.

Waste is also generated from the maintenance and servicing of equipment, these include waste oils and lubricants and tyres which are disposed by the service contractor through appropriate waste channels respective to the waste stream. The Site generates limited quantities of light bulbs, batteries and scrap metals. These are disposed of as required by appropriately licenced operators.

12.4.8 Geological Resource

The geology of the Site is described in detail in Chapter 5.0 (Land, Soils and Geology). As outlined previously, rock extraction has been an established activity in the area with the quarry dating back to before the 1700s and first formally permitted in 1968. The extracted aggregate is used in the construction industry.

12.5 Characteristics of the Development

The substitute consent application is to be made concurrent with an application for further development of the quarry for extraction to be made under S.37L of the Planning and Development Act, 2000 as amended that is accompanied by an EIAR.

The lands the subject of this rEIAR extend to 46.14 ha. that reflect historic operational site information including the extractable area declared under S.261 quarry registration in 2005. The quarry area that makes up the application for substitute consent planning currently extends to approximately 28.8 ha. at the centre of the EIA project area that is generally bounded by the N/M7 to the north and the local Windmillhill Road to the south. The eastern and western EIA project boundaries are demarcated by the Windmillhill townland boundary that consist of field boundaries and the entrance to a dwelling called ‘Four Winds’ that is within the ownership of the substitute consent applicant to the east; and the former local Steelstown Road to the west.

The current quarry Site is accessed toward the center of its northern boundary from the N7/M7 and has been accessed from that road since grant of planning permission for stone quarrying on site in 1968 (under Reg. Ref. 11547). The current quarry void is centrally located within the EIA unit and is roughly rectangular in shape with an east‐west orientation, parallel to the N7/M7 and local Windmillhill Road. At the centre of the current quarry area is the existing administration and processing plant area over approximately 5 ha.

At baseline in 1990 the quarried area has been determined in the Land, Soils and Geology Section of this rEIAR to extend to 10.1 ha. and at 2021 to have expanded laterally to 28.8 ha. with an average working depth of 173 mAOD.

12.6 Potential Effects

The main potential impacts and associated effects that have been considered in the assessment relate to the following:

- Activities or events that might have impacted electrical services and utilities for surrounding users;
- Activities or events that might have impacted gas services and utilities for surrounding users; including the impacts of blasting on site on gas pipelines;
- Activities or events that might have impacted telecommunications networks for surrounding users;

- Activities or events that might have impacted surface water drainage networks surrounding the Site;
- Activities or events that might have impacted water supplies and services for surrounding users; including, impacts on quality and quantity of supply for groundwater users, and the impacts of blasting on water supply pipelines;
- Activities or events that might have impacted waste water networks for surrounding users;
- Activities or events that might have impacted waste management infrastructure; and
- Activities that might have impacted geological resources surrounding the Site.

These potential impacts during the assessment period of 1990 to 2021 are considered and assessed in the following sections.

Given the nature of the rEIAR and the Substitute Consent process the potential impacts of a 'Do Nothing' scenario if the Development were not operating during this period have not been considered.

12.6.1 Electricity Network Utilities

The Development has utilised electricity supplies to the Site via the existing onsite connection to the grid. Appropriate authorisations for this connection would have been sought for this many years prior to the assessment period of the rEIAR. All works to the electrical power lines during the assessment period have been carried out in accordance with appropriate requirements and ESB Network guidelines. Previous extraction activities did not result in any significant impacts to the quality or availability of electrical utilities to the surrounding users.

Potential impacts from the Site's activities on the local electrical supply network are therefore considered to be **negligible** resulting in effects during the 1990 to today assessment period (long term) that are **imperceptible**.

12.6.2 Gas Infrastructure

There have been no requirements for a GNI connection to service Development. Therefore, there have been no additional supply demands on the GNI network from the Site. Potential impacts from the Site's activities on the local gas consumption in the network are considered to have been **negligible** resulting in effects that are long term and **imperceptible**.

During the study period, excavation and blasting works have taken place on Site, however these activities have not been conducted in the vicinity of the distribution pipeline to the north of the Site between the boundary and the N7. In addition, these works have progressed in a westerly and southerly direction away from the GNI distribution line. The current blasted face is ca. 470 m from the distribution line. The previous extraction activities did not result in any significant impacts to the quality or availability of gas supply to the surrounding users. Potential impacts from the Site's activities on the gas supply network are considered to be **negligible** resulting in effects during the 1990 to 2021 assessment period (long term) that are **imperceptible**.

12.6.3 Telecommunications

The Site's office currently utilises a privately owned mast located to the south of the pit for telecommunications. Previous hard wire connections may have been used at earlier times during the assessment period.

Potential impacts from the Site's activities on the local telecommunication networks are considered to be **negligible** resulting in effects during for the 1990 to 2021 assessment period (long term) that are **imperceptible**.

12.6.4 Local Water Supplies and Foul Water Infrastructure

Water used on Site during the assessment period has been abstracted from groundwater wells on the Site and the use of groundwater at the Site has been in existence for decades and at least pre-1990. Bottled water is

used for drinking water on site. As the Site does not consume water from the local supply network then potential impacts from the Site's activities on the water supply network are considered to be **negligible** resulting in effects during the 1990 to 2021 assessment period (long term) that are **imperceptible**.

During the study period, blasting works have taken place on Site, however they have progressed in a westerly and southerly direction away from the Liffey aqueduct concrete main located to the north of the Site. The impact of Site activities (e.g. excavation and blasting), on this line are considered to be **negligible** resulting in effects during the 1990 to 2021 assessment period (long term) that are **imperceptible.**

The Site utilised contained systems for collection of wastewater/sewage. Collected wastewater/sewage was then removed from the Site by contractors. Therefore, potential impacts from the Site's wastewater/sewage on the underlying groundwater and local environment are considered to be **negligible** resulting in effects during the 1990 to 2021 assessment period (long term) that are **imperceptible.**

As identified in the Water chapter (Chapter 6), the Site has employed a number of measures to protect the underlying groundwater from activities which have been undertaken. This included the safe storage of chemicals, the bunding of fuel storage tanks and the use of an interceptor associated with the hardstanding under the refuelling area. Therefore, potential impacts from the Site's activities on the groundwater quality of local well users are considered to be **low** or **negligible** resulting in effects during the 1990 to 2021 assessment period (long term) that are **imperceptible** or **slight**, (see Chapter 6 Water)**.**

12.6.5 Surface Water Drainage Infrastructure

Across the Site, surface water infiltrates through the underlying soils and sub-soils and percolates to the groundwater, and this has been consistent throughout the assessment period. The Site has utilised a man-hole on Site which is linked to the public surface water network associated with the N7 road for discharging groundwater during periods of higher rainfall. It is considered that these discharges have resulted in a **negligible** impact on the network resulting in effects during the 1990 to 2021 assessment period (long term) that are capable of measurement but without significant consequences (**imperceptible**).

12.6.6 Waste Management Infrastructure

Waste arising from activities at the Site has been managed by suitably qualified, permitted and licenced waste contractors.

Limited waste streams have been generated by the Site activities during the assessment period, and it is considered that the impact on the local waste infrastructure has been **negligible** during that time. This negligible impact has resulted in effects on the local waste management infrastructure that have been **imperceptible.**

12.6.7 Geology as an Economic Resource

The geology of the Site is described in detail in Chapter 6 (Land, Soils and Geology). The Development has resulted in a permanent loss of the geological resource within the confines of the Site. Currently the geological exposures are visible along the southern side of the Site. These exposures have offered a valuable insight into the geology of the area which may not have been previously exposed if there was no quarrying of the Site.

Additionally, the extraction of the aggregate during the period of 1990 to 2021 is considered an acceptable use of the economic resource at the Site and material extracted from the Site has been used as raw materials in the construction industry.

Therefore, potential impacts from the Site's extraction of the geological resources is considered to be **low** resulting in effects during the 1990 to 2021 assessment period (long term) that are **slight.**

Table 12.2: Evaluation of Initial Impacts and their Effect Significance

Receptor	Sensitivity	Source of Impact/Description of Change*	Impact Magnitude*	Level of Effect *
Electrical Infrastructure / Utilities	Medium	Disruption to electrical supplies as a result of Site activities.	Negligible (adverse)	Imperceptible
Gas Infrastructure / Utilities	Medium	Impacts to gas supplies by consumption from Site activities.	Negligible (neutral)	Imperceptible
Gas Infrastructure / Utilities	Medium	Disruption to gas supplies and damage to the supply network as a result of Site activities, (e.g. excavation and blasting).	Negligible (adverse)	Imperceptible
Telecommunication Infrastructure / Utilities	Medium	Disruption to telecommunications networks as a result of Site activities.	Negligible (adverse)	Imperceptible
Water Supplies	Medium	Impacts to water supplies by consumption from Site activities.	Negligible (adverse)	Imperceptible
Water Supplies	Medium	Impacts to the Liffey Aqueduct to the north of the Site from Site activities, (e.g. excavation and blasting).	Negligible (adverse)	Imperceptible
Water Supplies	Medium	Impacts to quality of surrounding water supplies (groundwater well users) from quarrying activities on Site.	Negligible to Low (adverse)	Imperceptible or slight
Water Supplies	Medium	Impacts to quantity of surrounding water supplies (groundwater well users) from quarrying activities on Site.	Negligible to Low (adverse)	Imperceptible or slight
Wastewater Networks	Medium	Impacts or impairment of local wastewater networks as a result Site activities or contributions.	Negligible (adverse)	Imperceptible
Waste Management Infrastructure	Medium	Impacts or impairment of local waste management infrastructure as a result Site activities generating wastes.	Negligible (adverse)	Imperceptible
Surface Water Infrastructure	Medium	Impacts or impairment of local surface water networks as a result of periodic discharge during higher rainfall events.	Negligible (adverse)	Imperceptible
Geological Resource	Medium	Use of the underlying geology used as an economic resource for aggregate and supply to the construction industry.	Low (beneficial)	Slight

* Taking account of embedded mitigation

12.7 Cumulative Impacts

The impacts identified during the assessment period were mitigated by design or good practice. Effects from the Site in isolation have been deemed in all instances to be not greater than Slight (adverse).

There are no extractive industries or other developments in the vicinity of the Site which have been identified to have a significant cumulative effect on the Material Assets identified above.

12.8 Remedial Mitigation

No remedial measures have been identified in this chapter of the rEIAR. Other monitoring measures which may be required are detailed separately in the below chapters of this EIAR:

- Chapter 6 – Water;
- Chapter 7 – Air Quality and Climate;
- Chapter 8 – Noise and Vibration;
- Chapter 10 – Landscape and Visual Impact; and
- Chapter 11 – Traffic.

12.9 Monitoring

The chapters identified in the above Section 12.812.8 have monitoring measures as appropriate (including water, air, noise, and vibration). On this basis, no specific monitoring is required in relation to material assets.

12.10 Residual Effects

The assessment concludes that the Development did not give rise to significant adverse effects on material assets surrounding the Site during the assessment period of 1990 to 2021. In all cases the residual effect is **Not Significant and not greater than Slight.**

12.11 Difficulties Encountered

The identification of surrounding utilities and infrastructure receptors was based on currently available mapping, as historical mapping was not readily available for the various utilities.

No other particular difficulties were encountered in the preparation of this chapter of the rEIAR.

APPENDIX 12.1

ESB Utility Maps

ESB Networks

TITLE:

20210204-065_A0

COLOUR CODE:

- BLACK - 38KV & HIGHER VOLTAGE OVERHEAD LINES
- GREEN - MV(10KV/20KV) OVERHEAD LINES
- BLUE - LV (400V/230V) OVERHEAD LINES
- CYAN - 38KV & HIGHER VOLTAGE UNDERGROUND CABLE ROUTES
- RED - MV/LV (10KV/20KV/400V/230V) UNDERGROUND CABLE ROUTES

DATE: 04-Feb-2021

** SCALE: 1:2500

** SCALE WHEN PRINTED ON AN A0 PAGE
XY COORDINATES DISPLAYED IN IRISH GRID COORDINATE SYSTEM

WARNING

THIS MAP INDICATES THE APPROXIMATE LOCATION OF ESB TRANSMISSION (400KV, 220KV, 110KV, 38KV) AND DISTRIBUTION (20KV, 10KV, 230V/400V) UNDERGROUND CABLES AND OVERHEAD LINES IN THE GENERAL AREA OF THE PROPOSED WORKS. ESB NETWORKS TAKES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE MAP. IT IS THE USER'S RESPONSIBILITY TO INDEPENDENTLY VERIFY THE INFORMATION AND THE LOCATION OF UNDERGROUND CABLES AND OVERHEAD LINES. LOW VOLTAGE (230V/400V) SERVICE CABLES (E.G. HOUSE SERVICES, FACTORY/SHOP SERVICES, PUBLIC LIGHTING LAMP SERVICES, ETC) ARE NOT INCLUDED BUT THEIR PRESENCE SHOULD BE ANTICIPATED. THE DEPTHS OF UNDERGROUND CABLES MUST NEVER BE ASSUMED. ADDITIONAL MORE DETAILED INFORMATION IS AVAILABLE FOR HIGH VOLTAGE TRANSMISSION UNDERGROUND CABLES (38KV, 110KV, 220KV, 400KV) FROM THE LOCAL ESB NETWORKS TRANSMISSION REPRESENTATIVE - SEE ATTACHED LIST FOR CONTACT DETAILS OR CALL 1850 372 757. NO WORK SHOULD BE CARRIED OUT IN THE VICINITY OF 38KV OR HIGHER VOLTAGE UNDERGROUND CABLES WITHOUT PRIOR CONSULTATION WITH ESB NETWORKS. BEFORE ANY MECHANICAL EXCAVATION IS UNDERTAKEN, THE ACTUAL LOCATION OF ALL UNDERGROUND ELECTRICITY CABLES MUST BE ESTABLISHED AND VERIFIED ON THE SITE USING:
(A) UP-TO-DATE MAP RECORDS. (B) CABLE LOCATER EQUIPMENT OPERATED IN BOTH POWER AND RADIO MODES.
(C) CAREFUL HAND DIGGING OF TRIAL HOLES USING 'SAFE DIGGING PRACTICE'. REFER ALSO TO 'HSA CODE OF PRACTICE FOR AVOIDING DANGER FROM UNDERGROUND SERVICES'. ESB TAKES NO RESPONSIBILITY FOR AND SHALL BEAR NO LIABILITY, HOWSOEVER ARISING, IN RELATION TO ANY DAMAGE, INJURY/DEATH OR LOSS OF SUPPLY AS A RESULT OF DAMAGE OR INTERFERENCE WITH ITS NETWORKS.

ESB NETWORKS HAS ISSUED THIS MAP AS A PDF DOCUMENT. IF VIEWING A PAPER VERSION OF THIS MAP, THE VIEWER MUST ENSURE THAT IT HAS BEEN PRINTED IN COLOUR TO FIT TO AN A0 (OR LARGER) PAGESIZE AND THAT EACH OF THE COLOURS INDICATED ON THE COLOUR CODE LEGEND ABOVE ARE CLEAR AND DISTINCT FROM EACH OTHER TO MAINTAIN A CORRECT REPRESENTATION OF THE ELECTRICAL NETWORK INFORMATION.

X,Y: 298543 , 226662

X,Y: 301445 , 226662

X,Y: 301445 , 224739

COLMANSTOWN WEST
624X 15

COLMANSTOWN N

266 50
COLMANSTOWN

COLMANSTOWN EAST

KEATING PARK UPPER
487X 15

KEATING PARK MID.
640X 50

TRUCK + MACHINERY
641X 100 DV

TOOTEHILL
235 200 DV

911X 15 DV

TOOTEHILL N
234 33

BROADFIELD COURT

BZ797

BZ795

BROADFIELD DRIVE

EXISTING SP. TFR.

CROCKSH
237 15 DV

CARRIGEEN
236 15

BRUNKARD
594X 50

CROOKSHANE COTTAGES
479X 33

CROOKSHANE REILLY

BUSTYHILL NTH
270 15

BUSTYHILL STH
570X 33

BUSTYHILL MID.
575X 15

BUSTYHILL EAST
287 G 630 DV

BUSTYHILL LWR
219Y 50 DV

BUSTYHILL WEST
288 15

CASTLEWARDEN METEOR

COLMANSTOWN STH
268 15

FALLONS MACHINERY
642X 50

WINDMILL HO
269 5

WINDMILL QUARRY NO
897 S MV

WINDMILL VIEW
587X 25

WINDMILL HILL EAST

CARRIGEEN UPPER

CARRIGEEN LOWER

STEELSTOWN

STEELSTOWN MIDDLE

STEELSTOWN EAST

STEELSTOWN S

STEELSTOWN LOWER

NEWTOWN LOWER

BROOKFIELD

CROCKSHANE S W

CROOKSHANE SOUTH

GLEBE

ROGERS

RUSTIC PATH

REDGAP MID

REDGAP

REDGAP WEST

CARRIGEEN SOUTH

CARRIGEEN SOUTH WEST

NEWTOWN EAST

METER POS

PLEASE NOTE THAT THERE ARE: HIGH VOLTAGE (38KV AND HIGHER VOLTAGES) OVERHEAD LINES AND UNDERGROUND CABLES ON THIS MAP. IF YOU INTEND WORKING, OR UNDERTAKING DEVELOPMENT WITHIN A CORRIDOR EXTENDING 40 METRES ON EITHER SIDE OF ANY HIGH VOLTAGE OVERHEAD LINES OR WITHIN A CORRIDOR EXTENDING 5 METRES ON EITHER SIDE OF ANY HIGH VOLTAGE UNDERGROUND CABLES YOU MUST CONTACT THE DESIGNATED PARTIES IN ADVANCE OF THE WORKS:

FOR HIGH VOLTAGE OVERHEAD LINES: (38KV AND HIGHER VOLTAGES)
CONTACT: ALAN BROWN, ESB TRANSMISSION, KYLEMORE WAY,
DUBLIN 8, D08-E398. PHONE: 087 9273970 EMAIL: ALAN.BROWN@ESB.IE

FOR HIGH VOLTAGE UNDERGROUND CABLES: (38KV AND HIGHER VOLTAGES)
CONTACT: GARETH PAISLEY, ESB TRANSMISSION, KYLEMORE WAY,
DUBLIN 8, D08-E398. PHONE: 087 9374867 EMAIL: GARETH.PAISLEY@ESB.IE

APPENDIX 12.2

GNI Utility Maps

Important Safety Notice: Damage to gas pipelines can result in serious injury or death. Gas network information is provided as a general guide. The exact location and depth of medium or low pressure distribution gas pipes must be verified on site by carrying out necessary investigations, including, for example, hand digging trial holes along the route of the pipe. Service pipes are not generally shown but their presence should always be anticipated.

High pressure transmission pipelines are shown in red. If a transmission pipeline is identified within 10m of any intended excavations then work must not proceed before GNI has been consulted. The true location and depth of a transmission pipeline must be verified on site by a representative of GNI. Contact can be made through 1850 427 747.

All work in the vicinity of the gas network must be completed in accordance with the current edition of the Health and Safety Authority publication, 'Code of Practice For Avoiding Danger From Underground Services' which is available from the Health and Safety Authority (1890 289 389) or can be downloaded at www.hsa.ie.

- Aurora Telecom Duct
- Aurora Telecom Sub Duct
- Aurora Telecom Inserted Gas Pipe

Aurora TELECOM

Aurora Telecom Queries - 01-8926166 (Office Hours)
Aurora_Network_Queries@gasnetworks.ie
Aurora Telecom Emergency Only 1850 427399 / 01 2030120

- Transmission Pipe (High Pressure)
- Transmission Pipe (Construction Issue)
- Distribution Pipe (Medium Pressure)
- Distribution Pipe (Low Pressure)
- Service Pipe (Medium Pressure)
- Service Pipe (Low Pressure)
- Strategic Pipe (Medium Pressure)
- Strategic Pipe (Low Pressure)
- Inserted
- Abandoned Pipe

C=?	Cover (depth in metres)		Pressure Monitor
CP	CP Test Point		Protection (Slabbing)
	End Cap		Protection (Sleeve)
	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

** Please contact GNI on 1850-427747 for specific information

DIAL BEFORE YOU DIG 1850 42 77 47
In Emergency call 1850 20 50 50 Gas Networks Ireland

Gas Networks Ireland

GAS NETWORK INFORMATION

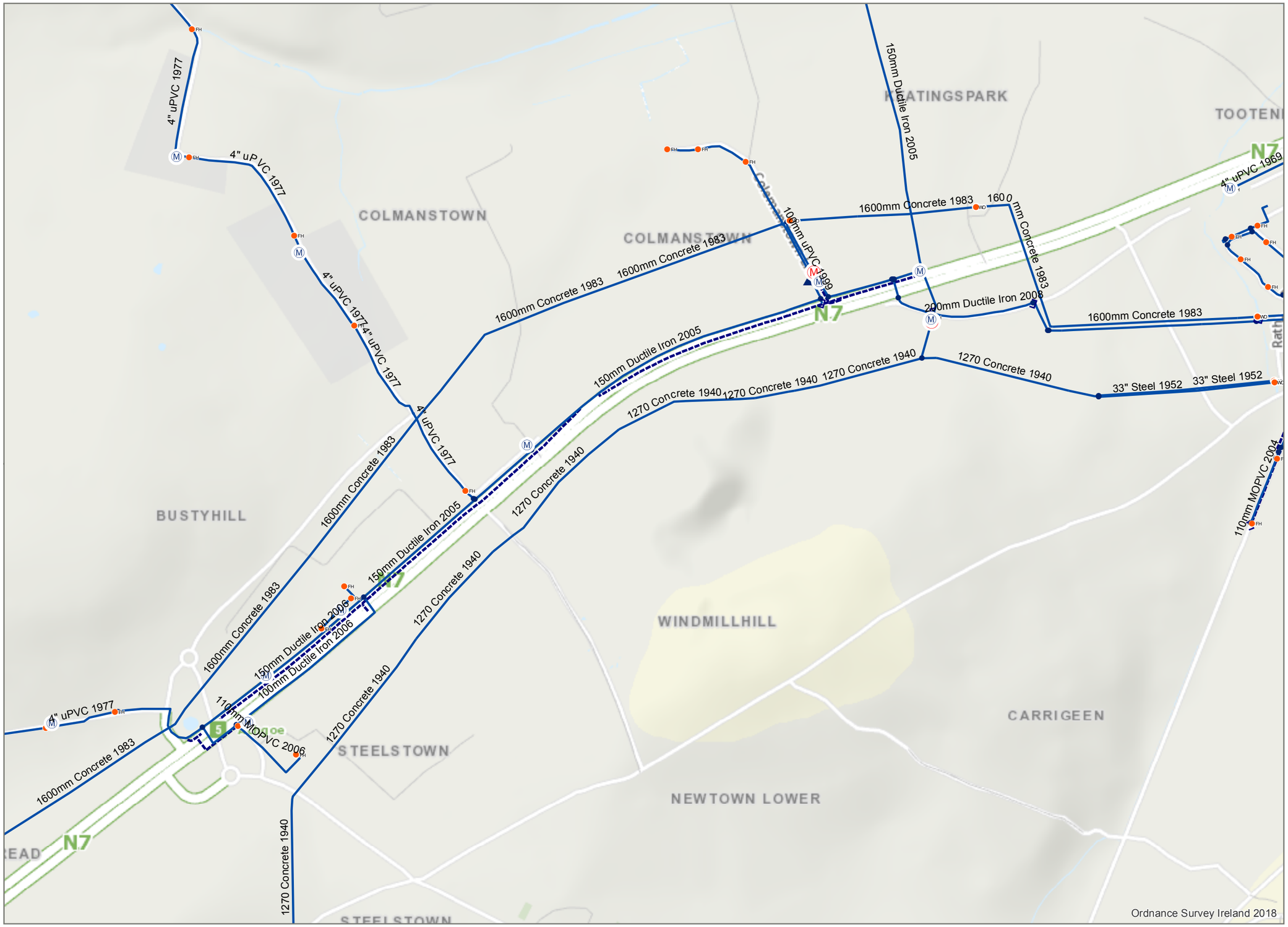
Description:

Location: 699936,725753

Plot Date: 10/11/2020 13:31	Scale: 5000 @ A3
Plotted By: 1017	Ref ID: *1017_10112020133154*

APPENDIX 12.3

Irish Water Utility Maps



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Water Distribution
Quarry Rathcoole, Co. Dublin

UISCE ÉIREANN : IRISH WATER

Legend

Non Boundary Meter
- Meter

Boundary Meter
- District (Boundary Meter)

Water Hydrants
- Fire Hydrant
- Washout

Pump Stations
- Pump Stations

Water Fittings
- Cap
- Other Fitting

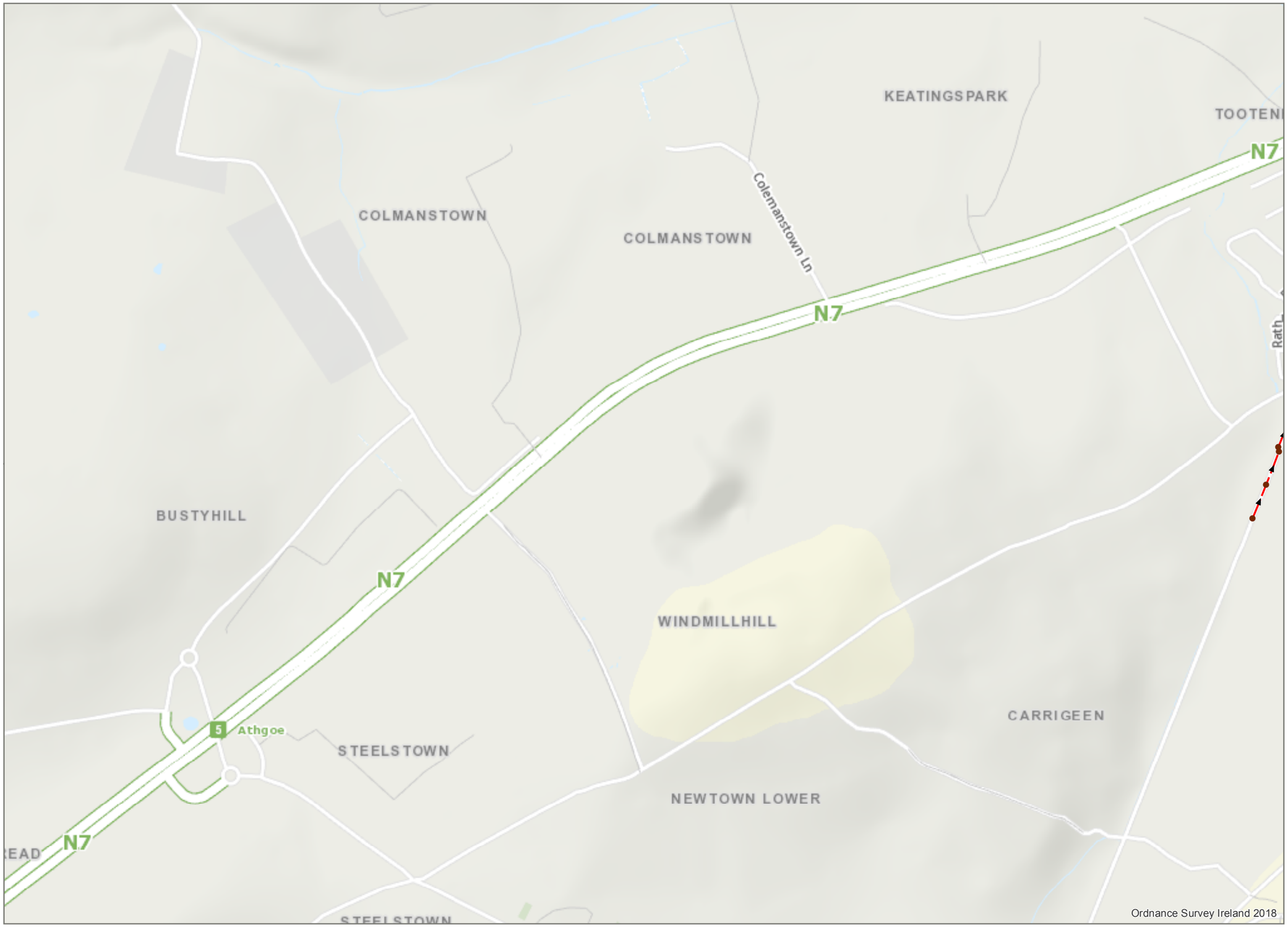
Water Mains(Irish Water Owned)
- Potable Water

Water Abandoned Lines
- Water Abandoned Lines

0 65 130 260 m

Coordinate System: TM65 Irish Grid Projection: Transverse Mercator	
Scale @ A3:	**1:8,000**
Drawing No.:	**IW-AGG-2018-000**
Drawn By:	**LFN**
Checked By:	**<Add Name>**
Approved By:	**<Add Name>**
Drawn Date	**10/11/2020**
Checked Date:	**<dd/mm/yyyy>**
Approved Date:	**<dd/mm/yyyy>**

DRAFT



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Sewer Distribution
Quarry Rathcoole, Co. Dublin

UISCE ÉIREANN : IRISH WATER

Legend

Sewer Manholes

- Standard

Sewer Mains (Irish Water)

- Gravity - Foul

0 65 130 260 m

Coordinate System: TM65 Irish Grid
Projection: Transverse Mercator

Scale @ A3:	**1:8,000**
Drawing No.:	**IW-AGG-2018-000**
Drawn By:	**LFN**
Checked By:	**<Add Name>**
Approved By:	**<Add Name>**
Drawn Date	**10/11/2020**
Checked Date:	**<dd/mm/yyyy>**
Approved Date:	**<dd/mm/yyyy>**

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