CONTENTS

INTRODUCTION

Background

11.1 This chapter of the Environmental Impact Assessment Report relates to the potential effects of the proposed development located in Mullymagowan townland, Stradone on the material assets of the surrounding area.

11.2 The proposed development is for:

- Quarry extension development for rock extraction and associated processing over an area of c. 4 hectares within an overall planning application area of c. 4.9 hectares as previously permitted under P. Ref. 12/101 (P. Ref. 17/383) and never commenced;
- A time period of 15 years is being sought to allow the previously permitted extraction be completed plus 2 years to complete restoration works (total duration sought 17 years);
- The development proposed seeks to utilise existing ancillary buildings and facilities including weighbridge, wheelwash, portacabin office/canteen/toilet, waste water treatment system, processing plant, site entrance and all other associated site works, and ancillary activities as currently permitted by P. Ref. 07/827; and
- Final restoration of the worked out quarry to a permanent water body and naturally regenerated wildlife habitat area.

11.3 For further detail of the proposed development and the application site context, refer to Chapter 2 of the EIAR.

Scope of Work / EIA Scoping

11.4 According to the EPA (EPA (2003) Advice Notes on Current Practice:

"Resources that are valued and that are intrinsic to specific places are called 'material assets'. They may be of either human or natural origin and the value may arise for either economic or cultural reasons".

11.5 Article 3(1) of the amended EIAR Directive provides the revised headings by which an EIAR is to be written. The EPA subsequently released '*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*' in 2022, and it is here that the information to be contained in the Material Assets chapter of the EIAR is provided.

11.6 Material Assets include the built services such as electricity, telecommunications, gas, water supply infrastructure and sewerage. Material assets also cover and roads and traffic. These items are categorised according to construction and operational phases of the proposed development and must be accounted for in unplanned events[1].

11.7 The EPA Guidelines in relation to the preparation of EIAR note the following in respect of material assets:

"Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes roads infrastructure."

[1] Environmental Protection Agency (2022). Guidelines on the Information to be contained in Environmental Impact Assessment Reports. EPA.

11.8 Chapter 14 of the EIAR addresses traffic and Chapter 12 addresses architectural heritage, archaeological heritage and cultural heritage. This chapter addresses built services and waste management.

11.9 This material assets impact assessment comprises the consideration of existing resources pertinent to the proposed development and the application area that are not addressed elsewhere in the EIAR and the likely development impacts on those resources. On this basis, this Chapter addresses built services, amenity/tourism resources and waste management. Built services are understood to refer to electricity, telecommunications, gas, water supply infrastructure and sewerage.

Consultations / Consultees

11.10 No specific external consultations were undertaken in the preparation of this Chapter of the EIAR.

11.11 A formal pre-planning consultation was held between planning staff of Cavan County Council, the applicant and representatives of SLR Consulting Ireland on 10 August 2022.

Contributors / Author(s)

11.12 This chapter of the EIAR was prepared by Lynn Hassett of SLR Consulting Ireland. Lynn is an EIA Co-ordinator (BSc, MSc) and has experience of Environmental Impact Assessment, project management and planning, with extensive experience of carrying out EIARs throughout Ireland and the UK.

Limitations / Difficulties Encountered

11.13 No limitation or difficulties were encountered in the preparation of this chapter of the EIAR.

REGULATORY BACKGROUND

Guidelines and Technical Standards

11.14 This chapter of the EIAR has been prepared on the basis of the EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022).

11.15 There are no technical standards relevant to this section of the EIAR.

Legislation

11.16 There is no specific legislation relevant to this chapter of the EIAR. However, the information provided within is informed by:

- Section 37D and 171A of the Planning and Development Act, 2000 (as amended);
- Section 94 and Schedule 6 of the Planning and Development Regulations, 2001 (as amended); and
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Planning Policy and Development Control

11.17 This chapter of the EIAR is informed by the National Planning Framework 2040 (NPF2040) and the Cavan County Development Plan 2022-2028 (CCDP).

RECEIVING ENVIRONMENT

Study Area

11.18 The study area for this chapter of the EIAR encompasses the vicinity of the application site and extends to those dwelling and buildings on the roads surrounding the application site, within c. 1km of the application site.

Baseline Study Methodology

11.19 The baseline study for this chapter of the EIAR is comprised of:

- A desk-top based review of both online and published resources;
- Information provided by the applicant;
- Information provided by service providers (Irish Water, Gas Networks Ireland, ESB Networks);
- Information from the other chapters of this EIAR;
- Ordnance Survey (OSi) maps and aerial photography (Google Maps).

Sources of Information

11.20 All baseline information not contained within other chapters of this EIAR was obtained from the following resources:

- Myplan.ie (www.myplan.ie);
- Historic Environment Viewer (www.webgis.archaeology.ie/historicenvironment);
- Cavan County Development Plan 2022-2028;
- OSi Maps;
- Aerial photography;
- EPAmaps.ie;
- Open Streetmaps (www.openstreetmaps.org).

Site Context

11.21 There are few residences in the immediate vicinity of the site. Most residences comprise of isolated farm dwellings and of owner occupied one-off residences situated along the local public road network. The linear settlement of Lavey is situated along the N3, approximately 1.5km west of the application site at its closest point. The next largest residential settlement is Stradone village, which is located c. 4.5km north of the site. Cavan town is located c. 10km north of the application site. The existing housing pattern in the vicinity of the application site is shown on **Figure 11-1**.

11.22 The landscape surrounding the site is attractive with indigenous drumlin features prevailing. The undulating nature of the landscape assists with screening views into and out of the site, and the existing quarry development is very well screened from outside the applicant's landholding.

11.23 There is one other extractive industry located within c. 1.4km of the site, as shown on **Plate 11-1** below. There is a number of minor worked gravel pits evident in the wider area.

Plate 11-1
Other Quarry / Pit Sites within c. 1.4km of the Site

Infrastructure

Roads

11.24 The main transport artery through the region is the N3 (Dublin – Cavan National Primary route) which is c. 1.25km to the southwest of the site at its closest point.

11.25 The existing quarry site is accessed / egressed via a dedicated link road to the regional R165 road, which connects to the N3 approximately 3km to the northwest. The R165 is approximately 6 metres in width at the location of its access to the application site. Its surface is in good condition and the speed limit on this road is 80km/hr.

11.26 There are two local public roads dissecting the overall landholding, the L3500 to the east of the application area and the L7503 which immediately bounds the western boundary of the application area.

11.27 The L3500 is crossed (in the area of the existing administration buildings and weighbridge) by HGV traffic leaving the existing quarry site via the dedicated R165 link road the L3500. There is straight alignment on the L3500 and good visibility at this crossing point. The surface of the carriageway is generally in good condition with occasional patches where the surfacing has deteriorated. The road serves residential dwellings and farms in the area and has occasional passing places.

11.28 The L7503 (referred to as the 'Mullymagowan Pass') runs along the western boundary of the proposed quarry extension. It is a narrow road with poor quality surfacing, serving residential dwellings and farms in the local area.

Railways

11.29 There are no railway lines in the immediate or wider vicinity of the site at Mullymagowan. The Dublin to Sligo route is the nearest railway line and is located more than c. 40km to the west of the application site.

Amenity Areas

Tourist Amenities / Facilities

11.30 The current CCDP identifies Cavan as a county with substantial heritage and cultural assets, along with a scenic, unspoilt and rich natural environment. A list of the main visitor attractions in the county is provided within the CDP, none of which are within or close to the study area for this assessment.

11.31 The value of the wider area surrounding the application site is considered to be of natural scenic value and the contribution of the county's lake and river resources to the potential for tourism value is recognised. Chapters 13 and 7 of this EIAR provide more detail on how these features are safeguarded through the design of the proposed development. The application site is not located in proximity to any designated Cavan trails[2]. There are no protected views within the vicinity of the site. The closest scenic view identified within the CCDP is SV10 (Lisnananagh), located c. 5km northwest of the application site. There are no other protected views within 5km of the site. There is therefore no visual impact on any protected view, due to the proposed development.

Utilities

11.32 The existing quarry site has an electricity supply via an existing mains supply. Mapping on the ESB infrastructure has been obtained from ESB networks and is provided in **Appendix 11-A**. It indicates a 10KV/20KV over-head line which approaches the overall quarry landholding from a group of settlements to the northeast. The over-head line finishes at the L3500, from where an underground 10KV/20KV/400V/230V cable is shown within the applicant's landholding. This connection will continue to provide the principal energy source for the overall site. No overhead power lines traverse the application site. Further 400V/230V/10KV/20KV over-head lines are shown on ESB mapping within the wider area (to the west and south), outside of the proposed development area. These over-head lines provide power to local residences.

11.33 The existing site-based staff are contactable via fixed land-line and mobile phones. Mapping requested from Open Eir (presented in **Appendix 11-B**) indicates their network infrastructure running along the L3500 and L7503 public road network[3]. Internet connections to the site office is currently provided by a mobile network, facilitating access to email.

11.34 Effluent from toilet facilities is treated using the existing effluent treatment system; refer to chapter 7 of the EIAR for further details. There is no proposed change to the existing services supplying and servicing the site as part of this planning application.

11.35 The potable water supply to the quarry canteen is provided by the Lavey-Billis Group Water Scheme. Mapping provided by Irish Water (presented in **Appendix 11-C**) indicates the privately operated water mains infrastructure running along the line of the local road network.

11.36 Review of the 'dial before you dig' website from Gas Networks Ireland was carried out as part of the baseline review. The results of the inspection are provided in **Appendix 11-D**. There is no mains

[2] https://www.alltrails.com/ireland/county-cavan
[3] The cables do not run as far north along the L7503 as the application site's western boundary

gas supply within the vicinity of the site. The closest supply to the site is in Bailieborough town and its environs, c. 15km to the east.

Waste Management

General Waste Management

11.37 Potential waste which can be produced at the overall quarry site, and the measures used to control it are described as follows:

- **Scrap metal** produced from the maintenance of the processing plants can cause a nuisance if allowed to build up in an uncontrolled manner. A designated scrap metal area will hold any scrap metal produced, subject to the regular removal of all scrap by a licensed scrap metal dealer.
- **Used oils and oil filters** may arise from the regular maintenance of fixed and mobile plant. Any waste oil or oil filters which arise from the servicing of any plant / machinery on site will continue to be collected for recycling (where possible) and disposal by a licensed waste contractor.
- **Used batteries** will continue to be removed from site for collection and recycling by a licensed waste contractor. This is in accordance with Waste Management Regulations.
- **Domestic Waste** generated at the employee facilities, or the office will continue to be collected by a licensed waste collection contractor.

Extractive Waste Management

11.38 Almost all products and by-products arising from the aggregate processing have commercial value. Any waste materials from the site are stored, collected, recycled and/or disposed of in accordance with any requirements of Cavan County Council.

11.39 All overburden removed from the extraction area will be used at the site to provide landscaping along the quarry extension boundaries. Any surplus overburden materials will be stockpiled on site to ensure that the materials needed for the reshaping of the landscape during the overall final site restoration process is available.

Sensitive Receptors

11.40 The application site is surrounded by mostly agricultural and forestry lands that is interspersed with one-off housing and buildings associated with agricultural uses.

11.41 **Figure 11-1** identifies residential properties, community facilities and farm buildings within the locality and shows 250m, 500m and 1km offsets from the application boundary.

11.42 There are only three residences located within 250m of the planning application area, the closest of which is c. 26m west of the site along the L7503 local road and owned by the applicant. The closest third-party residence is located 180m northwest, with another residence located 235m to the south (indicated as vacant on myplan.ie). There are clusters of residences located to the north and south within 250m and 500m of the application site (a total of 11, one of which is indicated as vacant on myplan.ie).

11.43 There are a further 32 dwellings located between 500m and 1km of the planning application area (2 of which are indicated as vacant and one of which is indicated as a temporary structure on myplan.ie). The majority of these are located to the north and south of the application site, along the local county road network.

11.44 The site is not located near any educational or childcare facilities.

11.45 The site is not located within any identified GSI or EPA groundwater supply source protection zones (www.gsi.ie, 2018). There are two wells within the permitted quarry site (P. Ref. 07/827), which supply process water. The nearest offsite groundwater supply well is 415m away.

IMPACT ASSESSMENT

Evaluation Methodology

11.46 Evaluation of the effects on built services will comprise of a qualitative assessment. This qualitative assessment is based on both the quantitative and qualitative analysis of the potential effects on the environment undertaken in the other chapters of this EIAR. This assessment also takes into account a review of all relevant literature and professional judgement in relation to the impacts on current built services and waste.

Built Services

Construction Stage Impacts

11.47 As the proposed extension relates to a wider existing quarry, there is no requirement for the provision of any additional temporary plant or structures (such as canteen, wheelwash, weighbridge, office or processing equipment) as part of this proposed development, as these facilities are already provided for within the existing permitted site (P. Ref. 07/827).

11.48 Given that there are no built services within or adjacent to the proposed quarry extraction area and no changes are proposed to the use of utilities, it is considered that the proposed development would not have any significant, adverse, direct or indirect effects on water supply, wastewater, telecommunications or electricity supply.

11.49 As there is no construction stage and no associated impacts, there will be no significant effects on the environment.

Operational Stage Impacts

11.50 During the operational phase, the quarry faces will be advanced in a westerly direction.

11.51 The proposed quarry rock extraction operations will be similar to the extraction activities that have previously been carried out on the existing quarry (southeast of the application site). The proposed depth of extraction will be to a final depth of c. 110mAOD. Rock material will be extracted using conventional blasting techniques. The fragmented rock will be processed using the existing fixed crushing and screening plant located within the facilities of the wider landholding permitted under P. Ref. 07/827. Following this, the aggregates will be kept in end bins on-site to await use in on-site concrete production or transportation directly off site.

11.52 Given that there are no built services within the proposed quarry extraction area and no changes are proposed to the use of utilities, it is considered that the operational development phase would not have any significant, adverse, direct or indirect effects on water supply, wastewater, telecommunications or electricity supply infrastructure.

Post-Operational Stage Impacts

11.53 During the post-operational stage, no further rock will be extracted, and the site area will return to a natural habitat.

11.54 No activities that would have the potential to effect any built services in the vicinity would be undertaken during this stage. It is not anticipated that there would be any significant direct or indirect effects on built services during this phase of the development.

Waste

Construction Stage Impacts

11.55 As outlined above, as the proposed development is an extension of an established quarry site, there is no requirement for the provision of any additional temporary plant or structures.

11.56 Given that there are no built services within the proposed quarry extraction area, it is considered that the proposed development would not have any significant, adverse, direct or indirect effects on water supply, wastewater, telecommunications or electricity supply.

11.57 As there is no construction stage and no associated impacts, there will be no significant effects on the environment.

Operational Stage Impacts

11.58 As outlined above, there are exiting waste management arrangements in place in relation to general waste that would be generated by activities and staff working at the site. These arrangements will remain in place for the duration of the operational stage.

11.59 The volume of solid waste to be generated by the development will be relatively small and will principally comprise domestic / canteen waste. Wastewater from the toilet facilities will be treated by the on-site waste water treatment unit. All solid and liquid wastes (scrap metals, waste oils, etc.) will be collected and handled by appropriately authorised waste contractors at appropriately authorised waste facilities. It is considered therefore that the impact of waste generation during this stage will be medium-term, temporary and slight.

Post-Operational Stage Impacts

11.60 Any waste generated on the site will be limited to general waste produced by any employees that engaged in aftercare on an intermittent basis over a two year period. Any such waste will be handled in accordance with the established practices on site and will be removed by a licenced contractor.

11.61 It is considered, therefore, that the generation of waste during this period will be short-term, temporary and slight in its effects.

Unplanned Events

11.62 Unplanned events can be any number of events that occur in or around the application site which were not foreseen. According to the EPA Guidelines, unplanned events such as accidents, can include such events as "*spill from traffic accidents, floods or landslides affecting the site, fire, collapse, or equipment failure*" on the site.

11.63 The 2014 EIA directive refers to "*major accidents, and/or natural disasters (such as flooding, sea level rise or earthquakes.)".* In addition, the EPA guidelines note that "*Some types of factors are particularly vulnerable to unplanned events that have the potential to cause significant sudden environmental effects*".

11.64 In this instance, the vulnerability of the proposed development to accidents, unplanned events or natural disasters is relatively limited owing to:

- the nature of the materials being handled / extracted;

- the relatively simple nature of the development works, extraction and processing activities;
- the established nature of these activities with proven management systems in place; and
- the relatively isolated, rural location of the proposed works.

11.65 Potential unplanned events in relation to the proposed development could conceivably relate to:

- instability arising from excavation, handling and placement of materials;
- spill from traffic accidents; and
- flooding impacts.

11.66 The excavation and stockpiling of crushed rock may present a risk of minor ground instability or collapse at the edge of excavations / wet workings or at stockpiles. Edge instability at the extraction area, should it occur, will not have any implications for property or the general public given that it is topographically constrained within an excavation and the separation distance from any third-party properties.

11.67 Any potential instability of excavated or stockpiled materials and the potential safety implications for site based personnel are (and will continue to be) actively managed and controlled by the quarry operator at the site having regard to the 'Guidelines to the Safety, Health and Welfare at Work (Quarries) Regulations 2008') published by the Health and Safety Authority (HSA).

11.68 It is recognised that all activities involving the use of plant, machinery and vehicles powered by diesel / fossil fuel brings with it a minor risk of spill or leaks. Were such leaks to arise at the application site, it would likely present a risk to groundwater or surface water quality. Given the limited size of the fuel holding tanks at this site however, the implications for property or the general public would most likely be only minor. A detailed assessment of these risks and details of the measures put in place to avoid and/or minimise the implications of any spills or leaks is presented in Chapter 7 (Water) of this EIAR.

11.69 The Office of Public Works (OPW) is the government agency with statutory responsibility for flooding in Ireland.

11.70 The OPW website (www.floodinfo.ie) indicates that there are no recorded flood events at the site.

11.71 In light of these factors, it is considered that no material assets identified in this Chapter are particularly vulnerable to unplanned or unforeseen events and that any unplanned events, were they to occur, would be unlikely to cause significant, sudden environmental effects in respect of existing built services and infrastructure or the management of wastes.

Cumulative / Synergistic Impacts

11.72 A search of the Cavan County Council online planning search facility[4] indicates that planning applications made in the last five years in the vicinity of the application site (Drummuck, Mullymagowan, Tirlahode, Corfad, Beaghy, Drumgora, Killygrogan, Moher, Stravicnabo and Drumnaveagh townlands) relate mainly to agricultural development and small-scale residential development.

11.73 Given the relative distance of the permitted developments and given that such developments were granted in the context of the established and permitted extraction operations at the quarry, it is not considered that the proposed quarry extension would result in significant cumulative effects on material assets.

[4] Online search conducted for November 2017-2022

11.74 In this context, the environmental consideration that has the greatest potential for cumulative impact on material assets, is traffic.

11.75 Traffic related impacts are assessed and discussed in the traffic impact assessment presented in Chapter 14 of this EIAR. The assessment concludes the traffic generation associated with the proposed development will not significantly impact the traffic carrying capacity of the local road or regional roads, the capacity of the site access junction or road safety generally.

Other Quarry Developments

11.76 There are no existing or proposed quarry developments within the immediate vicinity of the application site.

11.77 There is an existing quarry (Lavey Quarry, operated by BD Flood) located c. 1.4km southwest of the application site further along the N3 towards Virginia. The quarry is located in the townland of Carricknaveddan, Crosskeys, Quarry Ref: QY31 / ABP Ref. 02.QC2092 for continued operation of the site subject to conditions imposed on the site by Cavan County Council in accordance with Section 261 of the Planning and Development Act, as amended.

11.78 The Lavey Quarry is considered too far removed from the application site at Mullymagowan to have a cumulative impact on water, air quality, noise and landscape with the proposed development, therefore the potential for such impacts is considered to be insignificant.

11.79 The only environmental consideration that has the potential for significant cumulative impact on material assets, is traffic associated with the developments.

11.80 This planning application does not seek to increase annual extraction rates that are any higher than those previously permitted under P. Ref. 12/101. It is proposed that the quarry development for which planning permission is being sought will extract up to 250,000 tonnes per annum, which is less than the 290,000 tonnes previously permitted by P. Ref. 12/101 and therefore it is considered there will be a slight decrease in permitted traffic as a result from the application site at Mullymagowan. This, in combination with the fact that the Lavey Quarry has previously operated successfully in tandem with the existing quarry at Mullymagowan, and the reliance of both on un-heavily trafficked national road infrastructure, supports the conclusions that significant cumulative impacts are not anticipated.

Transboundary Impacts

11.81 Given the location and site context of the application site, it is not anticipated that the impacts of the proposed development will have any significant transboundary effects on material assets.

Interaction with Other Impacts

11.82 It is not anticipated that the effects of the proposed development on material assets will interact significantly with other impacts.

'Do-nothing Scenario'

11.83 Rock extraction within the application site as previously permitted by P. Ref. 12/101 would not be carried out and the agricultural / scrub lands would remain in-situ. There would be a loss of the proven reserve and valuable aggregate supply that is required to deliver infrastructure projects in line with national policy.

11.84 A 'do-nothing scenario' would not result in any significant adverse impact in relation to built services and waste generation / management and the effect of a 'do-nothing scenario' would be neutral in relation to these factors.

11.85 However, in a 'do-nothing scenario' extractable rock resources would remain in the ground and alternative sources of aggregates would need to be identified and developed to meet demand from the construction sector.

11.86 Any greenfield site amongst possible alternatives is unlikely to offer the benefit of established land-use and environmental impacts and would require new site infrastructure to be put in place.

MITIGATION MEASURES

Construction and Operational Stages

11.87 As outlined above, there are no built services within the application site that would be directly affected by the proposed development. No additional mitigation measures are proposed in relation to built services or infrastructure.

11.88 Aside from the implementation of established good practice and housekeeping, no additional mitigation measures are proposed in relation to general waste management. All waste generated at the site will continue to be appropriately stored and removed by licenced contractors. Any materials such as topsoils / subsoils stripped or any materials generated during the extraction operations, will be utilised during the phased restoration of the extraction areas and the overall application area.

Post – Operational Stage

11.89 As outlined above, there are no built services within the application site that would be directly affected by the proposed development during the post-operational stage. No additional mitigation measures are proposed in relation to built services or infrastructure.

11.90 It is not expected that any significant volumes of waste would be generated during the post-operation stage. Any such waste will be handled in accordance with the established practices on site and will be removed by a licenced contractor. Aside from the implementation of established good practice and housekeeping, no additional mitigation measures are proposed in relation to waste management.

RESIDUAL IMPACT ASSESSMENT

Construction Stage

11.91 As no additional mitigation measures are proposed, the residual effects of the development on built services / infrastructure and waste are predicted to be as per the impact assessment outlined above.

Operational Stage

11.92 As no additional mitigation measures are proposed, the residual effects of the development on built services / infrastructure and waste are predicted to be as per the impact assessment outlined above.

Post – Operational Stage

11.93 As no additional mitigation measures are proposed, the residual effects of the development on built services / infrastructure and waste are predicted to be as per the impact assessment outlined above.

MONITORING

11.94 No environmental monitoring is proposed in relation to material assets.

APPENDICES

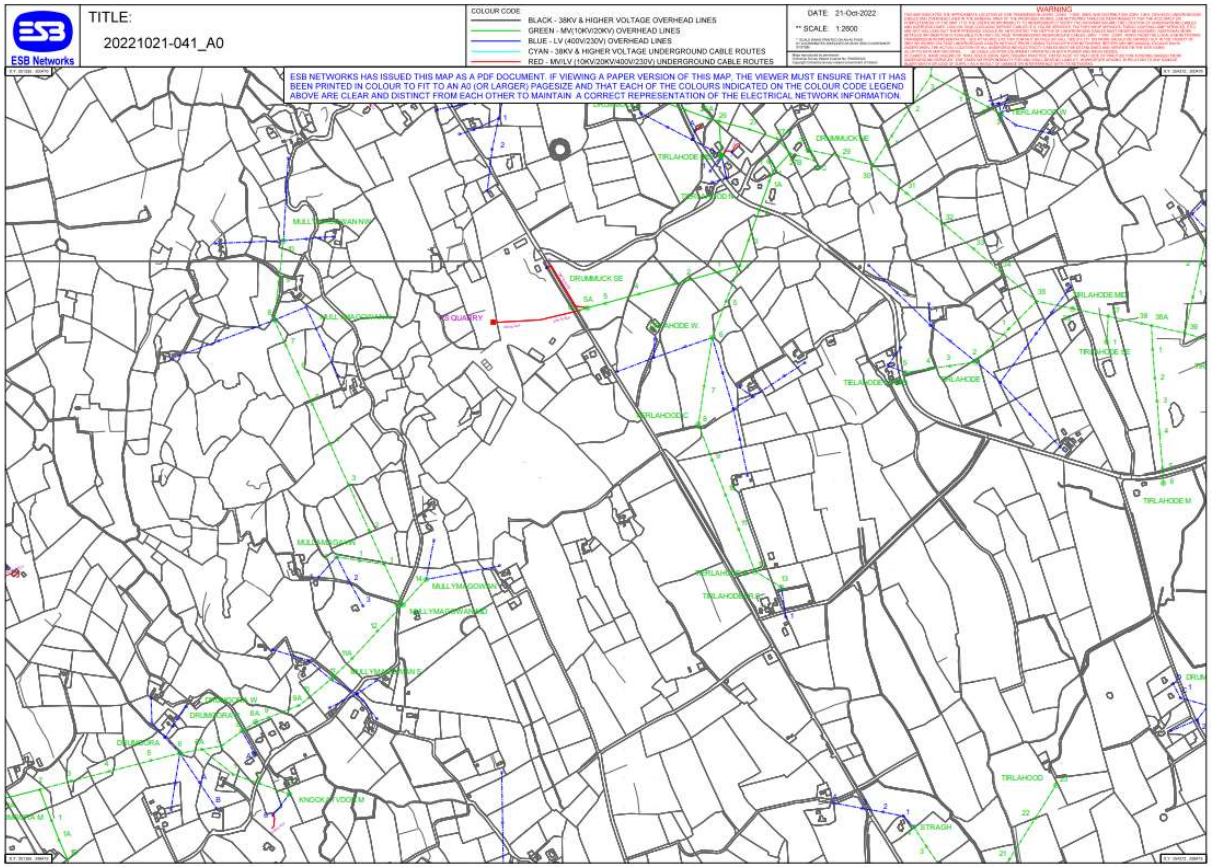
Appendix 11-A
ESB Networks 'Dial before you dig' review

Appendix 11-B
OpenEir Mapping

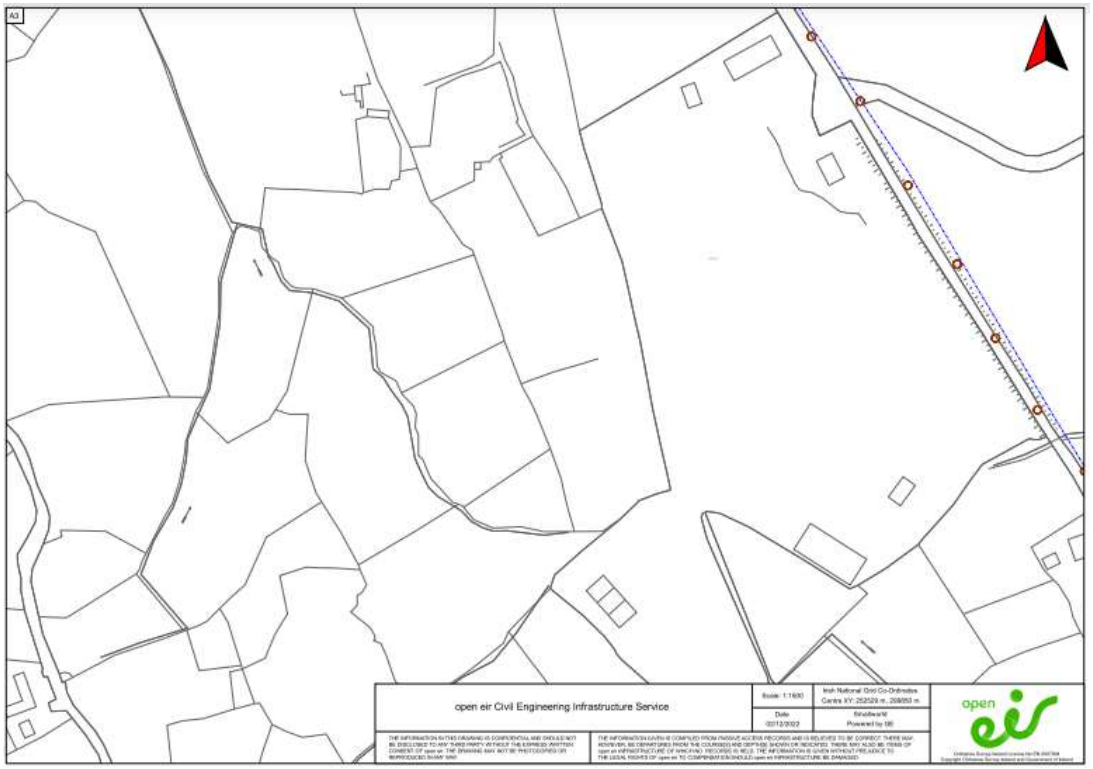
Appendix 11-C
Irish Water – Potable Water Mains Supply

Appendix 11-D
Gas Networks Ireland 'Dial before you dig' review

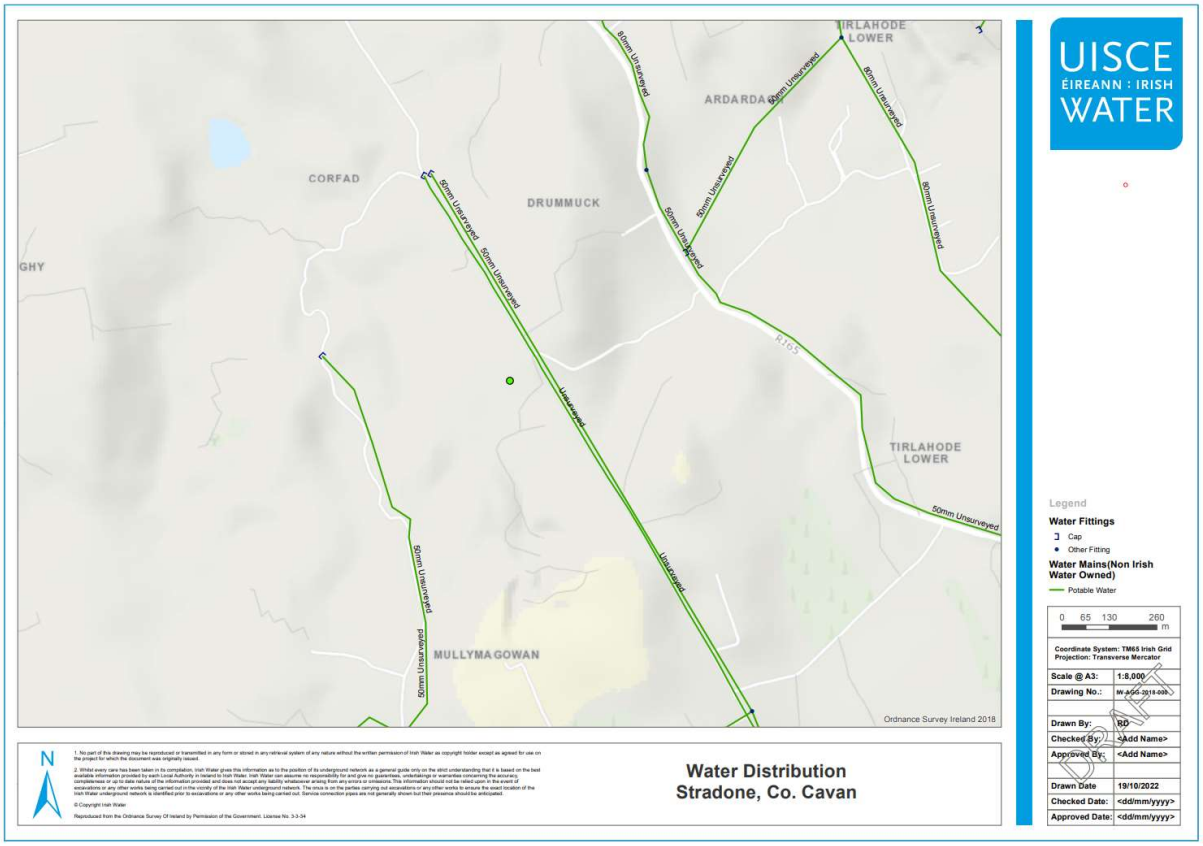
APPENDIX 11-A
ESB NETWORKS 'DIAL BEFORE YOU DIG' REVIEW



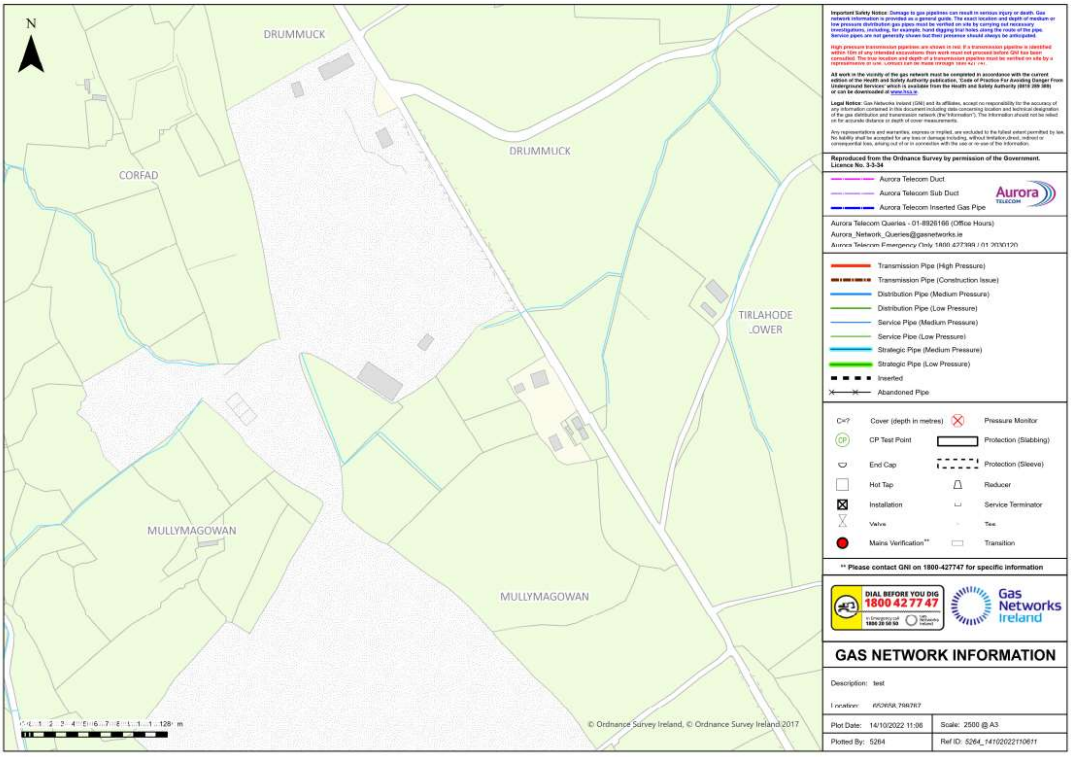
APPENDIX 11-B
OPENEIR MAPPING

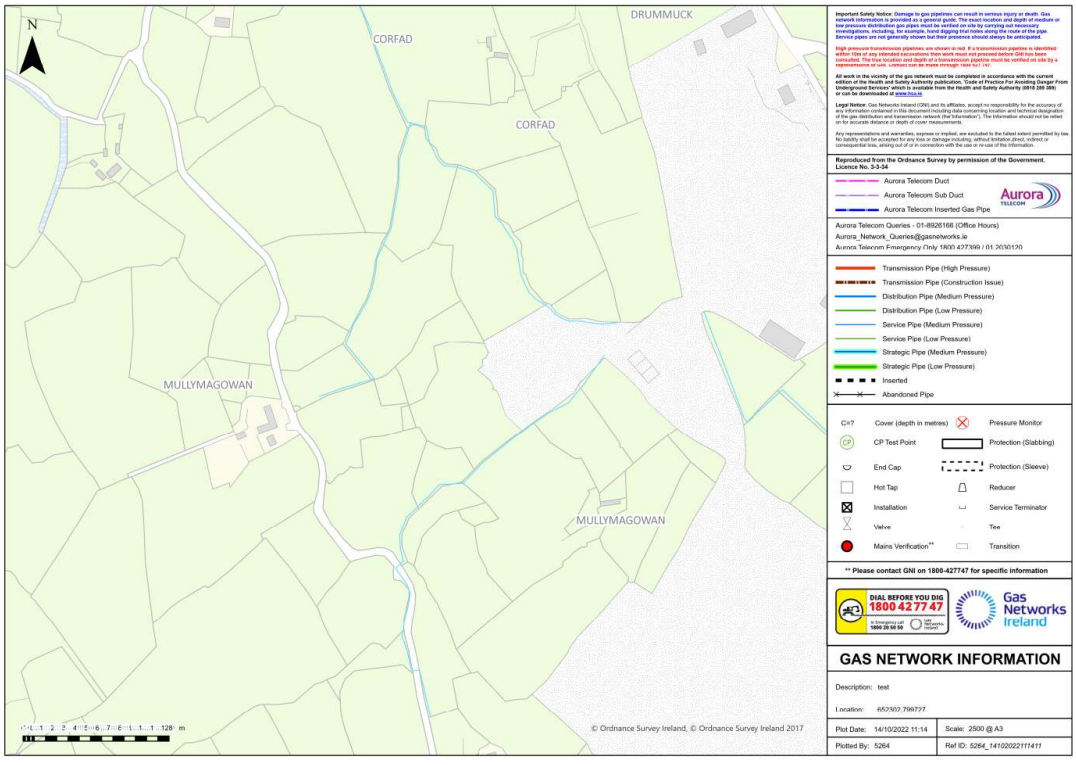


APPENDIX 11-C
IRISH WATER POTABLE WATER MAINS SUPPLY



APPENDIX 11-D
GAS NETWORKS IRELAND 'DIAL BEFORE YOU DIG' REVIEW





FIGURES

Figure 11-1
Material Assets