

13 MATERIAL ASSETS

13.1 INTRODUCTION

This Environmental Impact Assessment Report (EIAR) has been prepared to accompany a Section 37L application for an existing quarry at Hempstown Commons, Co. Kildare (the 'Site'). The Site is located within the administrative boundary of Kildare County Council, (KCC).

This chapter of the EIAR has been prepared by WSP Ireland Consulting Ltd (WSP) and addresses the direct and indirect significant effects, if any, on material assets located in the vicinity of the Site, which can reasonably be expected to occur due to continued operation and extension of the existing quarry at the Site (the 'Proposed Development').

Material assets are comprised of 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 assess the potential impacts and effects on material assets that can be reasonably foreseen due to the normal operation of the Proposed Development.

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, waste infrastructure, and geological resources.

The following assessment was prepared by Lisa Cleary (B.A. (mod), GradIEMA) and Rhian Llewellyn (MGeol, PhD, PIEMA). Lisa is an environmental scientist with over 1 years' experience, and Rhian is a geologist and EIA specialist with over 9 years' experience.

13.1.1 TECHNICAL SCOPE

This assessment has been made with guidance from the 'Guidelines on the information to be contained in environmental impact assessment reports', published by the EPA in May 2022. The guidelines were drafted by the EPA with a view to facilitating compliance with EIA Directive (2014/52/EU).

The 2022 guidelines suggest the following subheadings under which to arrange issues concerning 'Built Services'; "*Electricity, Telecommunications, Gas, Water Supply Infrastructure, Sewerage*".

Having regard to the above guidance, particularly the 2022 EPA guidelines, and the characteristics and context of the lands that are the subject of this application, this EIAR chapter aims to identify the likely significant effects that the Proposed 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.

Activities that may occur during the operational phase have been assessed. Activities undertaken during the restoration phase will be substantially less intensive and as such the assessment below represents a worst-case assessment of these phases.

Roads and traffic have been assessed in Chapter 12 of this EIAR.

13.1.2 GEOGRAPHICAL AND TEMPORAL SCOPE

The assessment directly covers the physical extent of the EIA site 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 Proposed Development. The EIA boundary encompasses the lands proposed for the continuation of quarrying (Section 37L application boundary). The Section 37L (the Planning Application) boundary is shown on the drawing set which accompanies the planning application.



Figure 13-1 - EIA Boundary shown on October 2024 aerial.

The temporal scope of this assessment covers the current quarrying activities on the Site and the extension of these permitted activities into the future, within the Section 37L application boundary. Given the phased nature of the extractive industry and the similarities between the construction and operational phases of the Proposed Development, these will be considered together in this chapter as the overall operational phase.

Under the current programme of the Proposed Development, the extraction phase will last for 12 years, which will provide for fluctuations in market demands for the aggregate extracted from the

Site. The duration of the extraction phase is therefore classified as ‘medium-term’ by the EPA’s 2022 ‘Guidelines on the information to be contained in environmental impact assessment reports’.

The restoration phase of the Proposed Development will follow the extraction phase and will be 2 years in duration, which is ‘short-term’ - those lasting from one to seven years (EPA, 2022).

13.1.3 PROJECT DESCRIPTION SUMMARY

A full description of the proposed development is provided in Chapter 2 (Project Description) of this EIAR. A high-level summary of the proposed development is provided below.

The proposed development for further extraction of rock is to be within the existing void area with lateral extension of the void proposed in a north-easterly direction. The estimated total quantity of aggregate resource to be extracted in the life-of-quarry is c. 1,757,500 tonnes. A proposed 12 year life-of-quarry requirement is based on an average production rate of ca. 2,929 tonnes per week for rock. Dry processing of mechanically broken and blast rock onsite will comprise crushing and screening to produce aggregate materials for market.

SQL proposed to relocate the existing office container, wheel wash and water recycling tank, weighbridge to fully within the Application Site to provide space for realignment of the private access lane on SQL lands and to develop dedicated carparking facilities for the quarry operation on SQL owned lands.

The proposed car parking facilities will provide parking for HGVs and private vehicles, including guest parking.

SQL propose to decommission the existing abstraction borehole located off the access road to facilitate the road realignment on their own lands. SQL propose to undertake periodic extraction of groundwater from an abstraction borehole located on Stresslite Precast Ltd to provide water for SQL’s closed-loop system wheelwash recycling tank and the mobile bowser.

There will be no direct discharge to surface or groundwater from the quarry operations. Collected waters from the base of the quarry void will continue to be pumped to the primary soakaway (which is connected to an overflow soakaway). It is proposed that the collect waters will pass through a bypass separator prior to discharge to the primary soakaway. It is proposed to extend the existing sump on the quarry floor to provide additional temporary holding capacity for collected waters, if required.

Following end-of-quarry life, a 2 year restoration period is proposed. This is detailed in a Restoration and Habitats Management Plan provided in appendix 2B of Chapter 2 (Project Description) of this EIAR.

13.2 LEGISLATIVE AND POLICY CONTEXT

13.2.1 LEGISLATION

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 EIAR has been produced in accordance with these relevant legislative requirements and Statutory Instruments.

13.2.2 RELEVANT POLICIES AND PLANS

The Kildare County Development Plan 2023-2029 was adopted on 9th December 2022. The key policies and objectives of this current plan are listed in Section 2.7.5 of the Project Description (Chapter 2).

13.2.3 RELEVANT GUIDANCE

This assessment has been made with guidance from the ‘Guidelines on the information to be contained in environmental impact assessment reports’, published by the EPA in May 2022.

13.3 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

13.3.1 ASSESSMENT AIMS

As identified above, the key objectives of this assessment are to assess the likely direct and indirect significant effects of the Proposed Development on the material assets in the surrounding environment.

13.3.2 EIA SIGNIFICANCE CRITERIA

As identified in Chapter 1 (Introduction) of this EIAR, 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, 2022). 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 EIAR. 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 Proposed Development, and their sensitivity to potential disruption from the impaired use.

A description of the significance categories used is provided in Table 13-1. 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 Section 1.8.2 of Chapter 1.

Table 13-1 - Significance categories and typical descriptions.

Significance Category	Typical Description
Profound	<p>An effect which obliterates sensitive characteristics.</p> <p>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</p>

Significance Category	Typical Description
	integrity. However, a major change in a site or feature of local importance may also be included in this significance category.
Large	<p>An effect which, by its character, magnitude, duration or intensity alters a significant proportion of a sensitive aspect of the environment.</p> <p>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.</p>
Moderate	<p>An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p> <p>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.</p>
Slight	<p>An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p> <p>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.</p>
Imperceptible	<p>An effect capable of measurement but without significant consequences.</p> <p>No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error</p>

13.4 BASELINE CONDITIONS

The application Site is located in the townland of Hempstown Commons in Co. Kildare. The Site is located within an area of historical extraction, with the subject lands being used for quarrying since the mid-1940s.

13.4.1 ESB NETWORK UTILITIES

Two service maps were received from ESB on 07 October 2024 detailing both the layout of underground and overhead ESB lines on-site and in the locality covering an area of 500 m from the EIA boundary. The received service maps have been provided in Appendix 13A of this chapter.

The service maps provided by ESB indicates that the Site is connected to the grid by an underground medium/low voltage cable. Premises around the Site are serviced by medium and low voltage overhead lines which traverse the area to the southeast, west and south.

13.4.2 GAS SUPPLY

A service map was received from Gas Networks Ireland (GNI) on 07 October 2024 detailing the gas networks within the EIA boundary. GNI infrastructure (e.g. pipelines) are not mapped as present within the study area (GNI, 2024). This GNI service map has been included in Appendix 13B.

13.4.3 TELECOMMUNICATIONS NETWORK

Service maps have been sourced from the open Eir Civil Engineering Infrastructure Service online mapping request portal and show the telecommunications network on-site and in the locality covering an area of 500 m from the EIA boundary. These maps indicate that transmission poles carry over ground services along the local road L6030, which runs to the south of the Site. These lines service the residential developments situated adjacent to them. There is a landline connection to the site office.

13.4.4 LOCAL WATER SUPPLIES AND SEWERAGE INFRASTRUCTURE

Service infrastructure details were received from Irish Water on 14 October 2024 covering the EIA boundary area. This information indicated that the site does not require water take from public water infrastructure.

An abstraction well was installed adjacent to the wheelwash in 2019 to provide supply to the wheelwash and welfare facilities. Minimal quantities are abstracted from this well. Wheelwashing occurs prior to vehicles leaving the Site and utilises abstracted groundwater which is recycled within the wash as far as practicable and topped up from the abstraction well when required.

Residential properties local to the Site have private water supplies and use septic tanks. Public groundwater supply schemes and associated source protection areas are considered to be too far from the Site to be at risk from site activities given the low permeability of the rock.

Site foul water is collected in temporary contractor service welfare units and does not connect to public systems.

13.4.5 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 have been two soakaways installed onsite which collect water that has been pumped out of the quarry void. Water from the soakaways is then lost to evaporation or infiltrated into bedrock aquifers.

It is also noted that traffic onsite is not driving on bare earth. Trackable routes, standing areas and site facilities areas are either on bedrock at the base of the quarry void or on a base of crushed and compacted aggregate. This is porous by its nature and water can drain through it.

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

13.4.6 WASTE MANAGEMENT AND LOCAL WASTE INFRASTRUCTURE

Small amounts of general refuse wastes are generated by the site office and staff facilities and are collected by a licenced waste removal contractor. Occasional metal scrap wastes produced are disposed of by SQL at suitably licenced waste facilities.

Waste is generated onsite from servicing equipment and plant. Waste oil and other waste and parts associated with this maintenance are disposed by the service contractor.

13.4.7 GEOLOGICAL RESOURCE AND LOCAL ECONOMY

The geology of the Site is described in detail in Chapter 5 (Land, Soils and Geology). As outlined previously, the existing activities undertaken at the Site include the extraction of aggregate for use in the construction industry.

13.4.8 LAND RESOURCE AND LOCAL AGRICULTURE

The Site is described in detail in Chapter 2 (Scope and Project Description), Chapter 4 (Ecology and Biodiversity) and Chapter 5 (Lands, Soil and Geology). The EIA boundary comprises approximately 18.45 ha.

To the northwest and immediately south of the Site lands are predominantly used by the extractive industry. To the east, southeast and northeast lands are predominantly in agricultural usage with residential dwellings scattered along roads.

13.5 CHARACTERISTICS OF THE DEVELOPMENT

The EIAR has been prepared to accompany a Section 37L for the continuation and extension of quarrying activities at the Site. The lands, the subject of this EIAR extend to 10.03 ha. and are located within the EIA project boundary for the EIAR (18.45 ha).

A continuation of activities at the Site are proposed with a lateral extension to the northeast. Proposed activities will involve the extraction of the rock (greywacke) using excavation techniques, which include drilling and blasting, and rock-breaking.

SQL propose to relocate the existing office container, wheel wash and tank, weighbridge within the Site to provide space for realignment of the private access lane on SQL lands and to develop dedicated carparking facilities for the quarry operation on SQL owned lands. SQL propose to decommission the existing abstraction borehole located off the access road to facilitate a road realignment on their own lands. SQL propose to undertake periodic extraction of groundwater from an abstraction borehole located on Stresslite Precast Ltd to provide water for SQL's closed-loop system wheelwash recycling tank and the mobile bowser.

The lands surrounding the Site can be characterised as rural in nature, with land uses in the area being agricultural, industrial and single-house residential. The lands contiguous to the boundaries of the Site are in agricultural use to the east and west. To the north, lands adjacent to the Site are used for the aggregate extractive industry. To the south, lands are in use by a precast concrete manufacturing company (Stresslite Precast Ltd.) There are scattered residential properties in the vicinity of the Site, primarily concentrated to the south of the site along the Local Road L6030.

13.6 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.

13.6.1 ESB NETWORK UTILITIES

The Proposed Development will utilise electricity supplies to the Site via an onsite connection to the grid. The Proposed Development seeks to maintain existing connections and no new connections or demands on the electrical infrastructure are proposed.

Potential impacts from the Proposed Development's continuation of quarrying on the local electrical supply network are therefore considered to be '*negligible*' resulting in long term effects that are '*Imperceptible*' and therefore, **Not Significant**.

13.6.2 GAS SUPPLY

There are no requirements for GNI connections to service the Proposed Development. Therefore, there will be no additional supply demands on the GNI network.

The effects of the Proposed Development on the GNI transmission lines and gas supplies is determined to be '*Imperceptible*' and therefore, **Not Significant**.

13.6.3 TELECOMMUNICATIONS NETWORK

The telecommunications network will be utilised at the site office. The Proposed Development does not seek to access additional telecommunication infrastructure, nor does it seek to carry out extraction activities which may result in telecommunication infrastructure being affected.

The impact of the Proposed Development on the telecommunications network will therefore be '*Imperceptible*' and **Not Significant**.

13.6.4 LOCAL WATER SUPPLIES AND SEWERAGE INFRASTRUCTURE

The abstraction well which is adjacent to the wheelwash is proposed to be decommissioned. As the wheelwash is proposed to move location, an abstraction well located on the neighbouring lands owned by Stresslite Precast Ltd. will be used to provide minimal quantities of water to the wheelwash. Abstracted groundwater will be recycled within the wash as far as practicable and topped up from the abstraction well when required.

Residential properties local to the Site, utilise both private and public water supplies. These residential dwellings use domestic septic tanks systems for wastewater.

The impact from the proposed development on the local water and sewerage supply is considered to be '*Negligible*' and therefore, **Not Significant**.

13.6.5 SURFACE WATER DRAINAGE INFRASTRUCTURE

As noted, surface water infiltrates through the underlying soils and sub-soils. There are no existing public surface water networks within the Site, therefore the Site will have no effect on public surface water networks.

13.6.6 WASTE MANAGEMENT AND LOCAL WASTE INFRASTRUCTURE

Waste from the Site will be managed by suitable qualified and permitted and licenced contractors. Due to the limited waste streams that is proposed to be generated it is considered that there will be an '*Imperceptible*' effect on local waste infrastructure resulting from continued Site activities, and is therefore, **Not Significant**..

13.6.7 GEOLOGICAL RESOURCE AND LOCAL ECONOMY

The geology of the Site is described in detail in Chapter 5 (Land, Soils and Geology). As outlined previously, the existing activities undertaken at the Site include the extraction of aggregate for use in the construction industry.

The Proposed Development will result in a permanent loss of the geological resource at the Site; however, this will be confined to the locality.

The extraction of aggregate is considered an acceptable use of the resources at the Site and material extracted from site will be used as raw materials in the construction industry. The extraction industry as a whole is a very significant industry serving the construction, industrial, agricultural and energy sectors. Therefore, potential impacts from the Proposed Development's extraction of the geological resources and economic use is considered to be '*low (beneficial)*' resulting in effects that are '*Slight*' and therefore, **Not Significant**..

13.6.8 LAND RESOURCE AND LOCAL AGRICULTURE

This proposes a lateral extension of the existing quarry void by ca. 1.89 ha in the proposed northeastern extraction area. These lands are not currently in agricultural use. As outlined in Section 13.6.7 the extraction of aggregates onsite is considered an acceptable proposed use of the resource which will benefit the economy.

With continued implementation of the current mitigation measures currently employed onsite, the Proposed Development will have an '*Imperceptible*' effect on agricultural resource in the vicinity of the Site and is therefore, **Not Significant**..

13.6.9 'DO NOTHING' SCENARIO

A 'do-nothing scenario' where the Proposed Development is not granted planning permission would not result in any significant adverse effects to the material assets surrounding the Site.



Table 13-2 - 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
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 quality of surrounding water supplies (groundwater well users) from quarrying activities on Site.	Negligible to Low (adverse)	Imperceptible
Water Supplies	Medium	Impacts to quantity of surrounding water supplies (groundwater well users) from quarrying activities on Site.	Negligible to Low (adverse)	Imperceptible
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
Geological Resource	Medium	Use of the underlying geology used as an economic resource for aggregate and supply to the construction industry	Low (beneficial)	Slight
Local Agriculture	Medium	Loss of agricultural land	Negligible (adverse)	Imperceptible

13.7 MITIGATION MEASURES

In order to mitigate the effects associated with the potential impacts on material assets surrounding the proposed development, the following additional mitigation will take place:

- Any works required to material assets on or around the Site will be carried out in conjunction with the relevant provider to ensure minimal disruption to the existing users.
- If utility disruption is required, then prior notification of disruptions shall be given to all impacted properties. This shall include information on when disruptions are scheduled to occur and the duration of the disruption. Consultation with relevant neighbouring parties shall be undertaken prior to any proposed disruptions, as appropriate.
- Interaction with overhead utility lines in and around the site will be avoided.
- All underground services will be identified, and protection will be put in place.

13.8 RESIDUAL EFFECTS

Once the identified mitigation measures, appropriate design standards and environmental management system is adhered to it is considered that there will be no residual impact on the material assets surrounding the Proposed Development. In all cases the residual effect is **Not Significant** and not greater than '*Slight*'.

13.9 CUMULATIVE EFFECTS

The cumulative effects associated with other permitted / under construction third-party developments have been considered in Chapter 15 of this EIAR. Cumulative effects are considered to be **Not Significant**.

13.10 MONITORING

No specific monitoring measures are required in relation to material assets.

13.11 DIFFICULTIES ENCOUNTERED

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

13.12 SUMMARY AND CONCLUSIONS

To conclude, the activities associated with the continuation of quarrying activities are considered not to have potential to cause any significant adverse effects to the material assets surrounding the Site.

13.13 REFERENCES

EPA. (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports.

Kildare County Council (2023) Kildare County Development Plan 2023-2029.

Appendix 13A

ESB SERVICE MAPS



Appendix 13B

GAS NETWORKS IRELAND SERVICE MAPS



