

Non - Technical Summary (NTS)

Volume 1



Remedial Environmental Impact Assessment Report

Substitute Consent Application,
Scotshouse Quarry Ltd

Aghnaskew, Scotshouse,
Co.Monaghan



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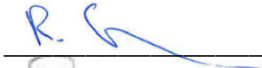


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Remedial Environmental Impact Assessment Report
Substitute Consent Application, Scotshouse Quarry Ltd
Aghnaskew, Scotshouse, Co.Monaghan

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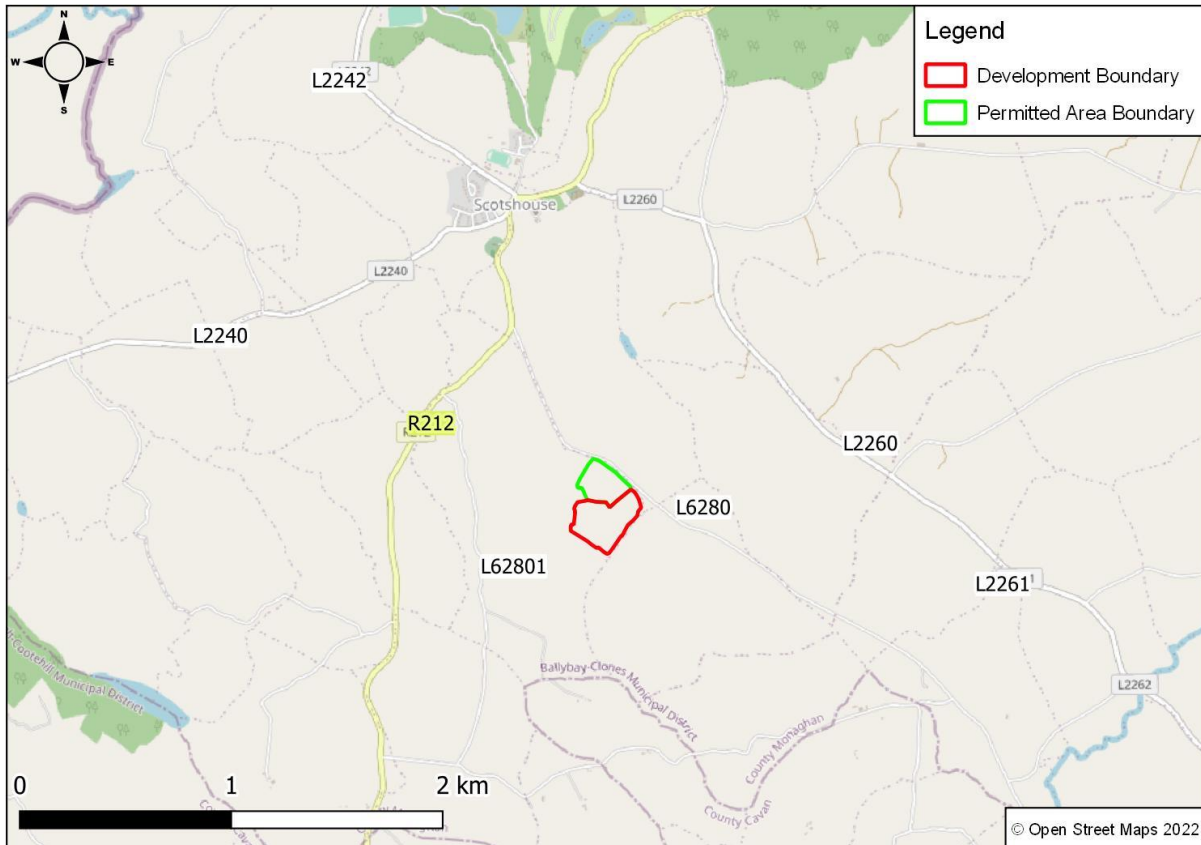
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1 INTRODUCTION

1.1 General

Malone O'Regan Environmental (MOR) have been commissioned by Scotshouse Quarries Ltd ('the Applicant') to prepare a remedial Environmental Impact Assessment Report (rEIAR) as part of the application to An Bord Pleanála (ABP) for Substitute Consent for part of their quarry ('the Site') in the townland of Aghnaskew, in the Barony of Dartree (Dartree By), Scotshouse, County Monaghan (ITM 649474 818324). See Figure 1-1 below.

Figure 1-1: Site Location



The quarry site covers an area of 11.5ha (the 'Registered Area'). Within this Substitute Consent is being sought under Section 177E of the Planning and Development Act, 2000, as amended to regularise a 5.6hectare (ha) area of land within the Applicant's landholding which has been subjected to rock extraction and processing ('the Development'). The quarry has pre-1963 origins and a 3.3ha area was granted planning permission in 1983 ('the Permitted Area'). The remainder of the Registered Area, ca 2.6Ha, comprises areas not developed for quarry works.

Between 1983 and 2004 the area of land under extraction expanded outside the boundaries of the Permitted Area but remained within the landowner's property. In 2004 the entire area under excavation ('the Registered Area') was registered under Section 261 of the Planning and Development Act (S261). At this point, the landowner reasonably believed that extraction across the Permitted Area was authorised.

In 2020, it became apparent that the Development did not have planning permission and that had the owner applied for planning permission, an EIAR would have been required.

Scotshouse Quarries Ltd successfully applied to ABP for leave to apply for substitute consent, which will aim to regularise the historic use of the Site for extractive purposes. To apply for substitute consent, the Applicant must supply a remedial EIAR, which will assess the environmental impacts of the Development.

This Non-Technical Summary (NTS) document constitutes volume 1 of the submitted EIAR. The NTS provides a summary in non-technical language of the information contained within the EIAR (Volume 2). Supporting technical documents can be found in the Appendices (Volume 3). It should be noted that the phrase 'not significant' is a term which means that the activity or impact referred to will have effects, but that these will not cause any unacceptable environmental effects or be a nuisance to persons or companies in the area.

1.2 Applicant

Scotshouse Quarries Ltd. is an Irish-owned family-run aggregates business, operating under Managing Director Mr Connolly. The company produces:

- Greywacke aggregate,
- Crushed quarry stone,
- Fill materials (for below concrete floors and footpaths),
- Surface dressing chips (for drives and roads),
- Macadam and
- Asphalt

It is the largest manufacturer of bituminous materials in Co Monaghan and a significant local employer.

1.3 Overview of the Site and Context

The Registered Area is situated ca.1km south-southeast of Scotshouse village and ca.30km southwest of Monaghan Town. The Registered Area has been used to extract and process greywacke stone, with origins prior to 1963.

The L6280 forms the north-eastern boundary of the Registered Area and adjoins the R212 to the west of the Registered Area, which provides the primary transport route for Heavy Goods Vehicles (HGVs) accessing and egressing the Registered Area. The R212 is a regional road which links Cavan Town and Clones in County Monaghan.

The immediate area is primarily agricultural with scattered single-dwelling developments on all sides. There are several residential dwellings in proximity, with the nearest being ca.50m from the northwest boundary of the Registered Area, on the western aspect of the L6280. The Permitted Area is in the northeast of the Registered Area. The Permitted Area is in the northeast portion of the Registered Area. The Permitted Area includes:

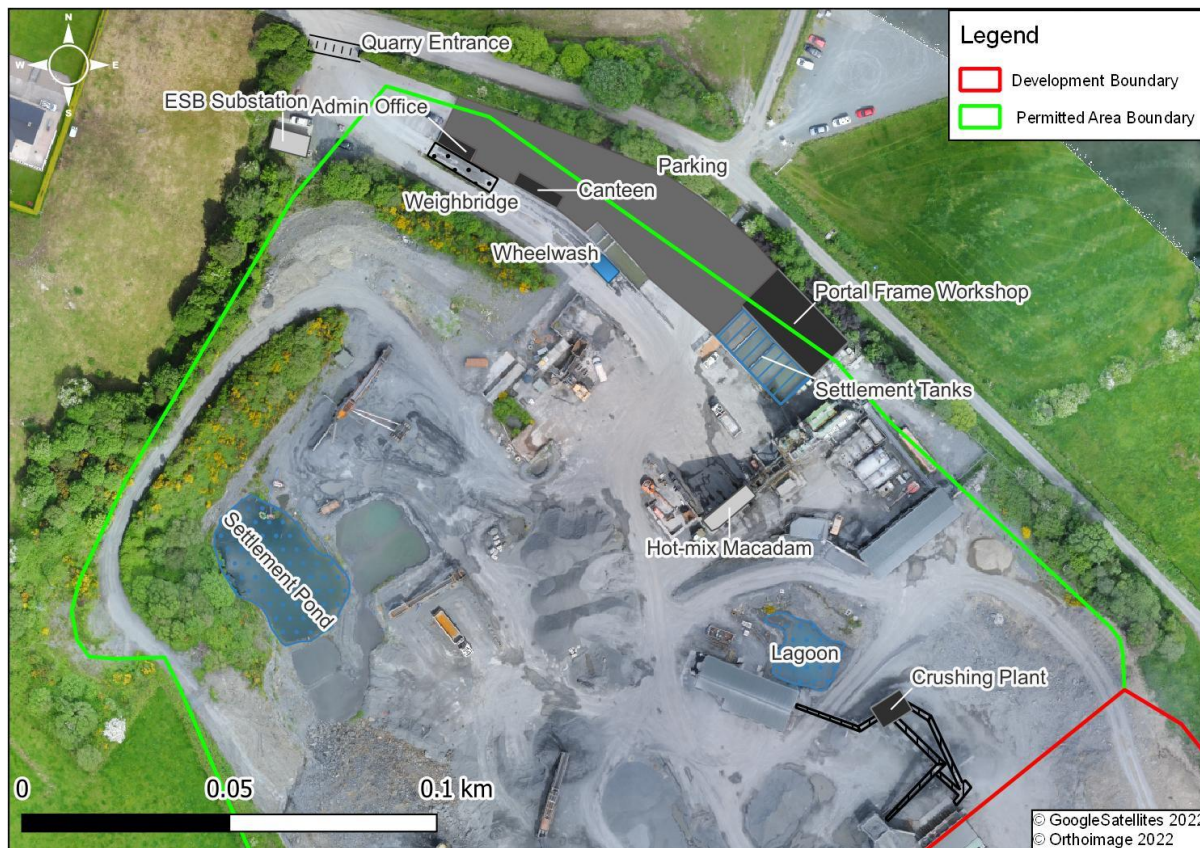
- ESB sub-station,
- Site offices,
- Staff welfare facilities,
- Car parking,
- Weigh-bridge,
- Wheel wash,
- Settlement tanks,
- Settlement lagoons,
- Mobile concrete batching plant,
- Crushing/screening plant and
- Hot-mix macadam plant

The Development is immediately south of the Permitted Area, refer to Figure 1-2 and Figure 1-3 below.

Figure 1-2: Site Context



Figure 1-3: Site Layout Permitted Area & Site Access



1.4 Environmental Impact Assessment Report (EIAR)

This remedial Environmental Impact Assessment Report has been prepared in accordance with all relevant legislative and best practice guidelines in support of the planning application.

2 PLANNING CONTEXT & NEED FOR THE PROPOSED DEVELOPMENT

2.1 Planning History at the Site

Initial planning permission for a greywacke quarry at the location was granted on 25th of July 1983 (planning ref 83/09) to Mr Patrick Cunningham for a 3.3ha area. The map of the area granted planning permission (the Permitted Area) shows that it stood within a larger area under the same ownership (see Appendix 2-1).

In November 2004, the then-landowner (Mr Thomas Leddy) applied to Monahan County Council (MCC) under S261 to register an area of 11.5ha, including 10ha under extraction. Supporting documentation showed that by this point, the area under extraction had expanded out from the Permitted Area. Registration of the quarry under S261 was completed in 2006 and a restoration plan for the entire area (the Registered Area) was submitted to MCC and accepted. The Registered Area was provided with a reference number of QY1.

In 2006, Paddy Connolly bought the Registered Area with the understanding that the S261 registration had granted authorisation for extraction to the entire Registered Area. In 2009, ownership passed to Mr Connolly's family-run company Scotshouse Quarries Limited, who retain ownership.

Between 2006 and 2019, a total of eight (8No.) applications for planning permissions related to the Registered Area were made to MCC. Each permission was granted. Each permission included maps showing that land outside the Permitted Area but within the Registered Area was under extraction. One of the applications (planning reference 14/124) was for a crushing plant and one (planning reference 15/113) was for construction of a hot-mix tarmacadam plant. Both applications made it clear that the aggregate required by the plant would come from the Registered Area. The applications are listed in Table 2-1 below.

Table 2-1: Planning Application History 2006-2012

Planning Ref	Applicant	Details	Grant Date
08/787	Paddy Connolly	Floodlights for site.	02/10/2008
09/618	Páraic Connolly	Portal Framework building & associated works	25/03/2010
10/127	Paddy Connolly	Single-story pre-fab office building Weighbridge 2.4m roadside fence	23/06/2010
14/124	Scotshouse Quarries Ltd	A crushing plant, including: Screening plant Concrete storage facility Conveyors Concrete feeding chute Concrete supporting structure Electrical services control container Mobile concrete batching plant Utilities and associated works	27/02/2015

Planning Ref	Applicant	Details	Grant Date
14/157		Site office Wastewater treatment unit Raised filter percolation area Car park Storm drainage Foul drainage and associated works	25/07/2014
15/113		Construction of hot mix tarmacadam plant and associated works	18/09/2015
18/485		Construction of electrical sub-station and switch room	13/12/2018
16/9011		Extension of duration of planning permission under 14/157 until August 2024	11/09/2019

In addition, in 2015, MCC granted Scotshouse Quarries Ltd. a discharge licence (WP26/15) for trade effluent arising from the Registered Area.

2.2 Planning Context

The planning context of the Development has been considered in terms of all national, regional, and local planning contexts including the following key documents:

- The National Planning Framework (NPF) [1];
- The National Development Plan 2021-2030 (NDP) [2];
- Regional Spatial and Economic Strategy (RSES) 2020-2032 [3]; and,
- Monaghan County Development Plan 2019-2025 (MCDP) [4]

The Site is located on unzoned lands outside the planning area for Scotshouse village. Under the MCDP 2019-2025, this means that the land may be used for agricultural and “any ancillary” uses. As the MCDP also prohibits extractive/quarrying uses from land zoned for any specific purpose, extractive industrial development is restricted to such unzoned land by default.

2.3 Need for the Proposed Development

The Registered Area provides a vital supply of high Polished Stone Value (PSV) aggregate chips, used as the main form of road maintenance in Ireland. A high PSV means the resultant road surface will be resistant to the polishing action of tyres and will have increased skid resistance. This resource is therefore of both regional and national importance.

The quarry has supported the economy of the local area through direct employment of up to 25 staff. If the Site cannot be regularised, the quarry will be unable to extract sufficient aggregate from the Permitted Area and will therefore cease to trade, with the resultant loss of local jobs and the loss of a vital contribution to national aggregate supplies.

3 PROCESS DESCRIPTION

The process occurring on the site is broadly divided in to two parts, the activities within the Permitted Area, which is authorised under various grants of planning, and the activities associated with the extraction and processing of aggregate within the substitute consent area.

3.1 The Development

The Development relates only to the works that occurred within the Registered Area, but outside the Permitted Area, as shown by the redline in Figure 1-2 above. Activities within the Permitted Area, see section 3.2 below, are authorised under planning. Where relevant, this remedial EIAR considers activities with the Permitted Area as a cumulative impact with the Development under direct assessment.

3.1.1 Historic Process

The Site was prepared by the removal of the topsoil and overburden, which were used to make the screening berms at the boundaries of the quarry. The ground was then opened up. This would have been carried out by excavators, mechanical excavators and bulldozers.

3.1.2 Operational Process

The Development consists of exposed rock faces and a working quarry floor. The rock faces were brought down by periodic controlled blasting, carried out by an explosives expert. Notice of planned blasts was given to the local population, and records kept of the time and date of each blast. For the safety of personnel, the Site was closed during and immediately after the blasting.

Once the explosives expert was satisfied that the Site is safe following a blast, the mobile plant was used to transport the blasted rock to the Permitted Area for processing. The plant used at the Site prior to the cessation of work to allow planning regularisation was as follows:

- One (1)x Volve 300 extractor,
- One (1) x Sandvick QJ341 Jaw Primary Crusher,
- One (1) x Roco 1600 Scalping Screen,
- One (1) to Two (2) x Roco tracked conveyer/stacker and
- One (1) x Volvo L180 Wheel Loader

All plant was high-specification, highly efficient and fuel-efficient.

The blasted rock was mechanically crushed and passed through the scalping screen, which contains at least two differently-sized screening decks. Mechanical vibration allowed the material to fall down through the screens. This sorted the crushed rock into different sizes. Generally following this primary crushing and screening the material was transported to the Permitted Development where secondary processing occurred within the fixed plant established there. The rock was passed through the crushing and screening process repeatedly until all material was of the sizes required by clients.

3.2 The Permitted Area

The Permitted Area is outlined in green in Figure 1-2 above and includes the site entrance and the main processing and services plant within the site.

3.2.1 Plant and Equipment

The Permitted Area consists of the exposed rock faces and the quarry floor. The following elements are present on the quarry floor (see Figure 3-1 below):

- Entrance gate onto L6280,
- ESB Substation,
- Staff canteen and hygiene facilities,
- Office,
- Weighbridge,

- Wheel wash,
- Workshop,
- Hot-mix macadam plant consisting of
 - Bag house filter
 - Hot stone dryer
 - Cold feed aggregate bins
 - Hot mix storage facility
 - Screen and mixing tower
 - Bitumen tanks
 - Control cabin
 - Fan
 - Chimney and
 - Dust reclamation system
- Crushing plant, consisting of:
 - Two (2No) crushers
 - Screening plant
 - Conveyors
 - Feeding chute
 - Mobile stacker
 - Supporting structure
 - Mobile concrete batching plant and
 - Storage facility
- Settlement tanks,
- Settlement pond and
- Settlement lagoon.

Rock excavated from the Registered Area was brought to the Permitted Area for processing. In light of the need to regularise the planning situation, no work has been carried out within the Site since April 2021.

Figure 3-1: Site Infrastructure



3.2.2 Products

The crushing plant was entirely fed by rock from the quarry. Processed rock was stockpiled until it was transported off-site in HGVs to fulfil client orders.

The hot-mix macadam plant used aggregate from the quarry. The finished product was discharged from the plant directly into HGVs for transport to clients.

3.2.3 Deliveries

The hot-mix macadam plant required additional stone along with limestone and bitumen. These were delivered by HGV. Fuel for the plant/equipment and vehicles was delivered to the quarry by road tanker.

3.3 Operational Details

The northeast boundary of the Registered Area is bounded by the L6280 and secured partly by a palisade fence and partly by a high bank with trees and low-growing bushes on the roadward side of the bank. These serve to screen the quarry workings from the road. The remaining boundaries consist of ditches and trees. To the north, west and south the land beyond the quarry boundary is entirely made up of fields. There is only one entrance, onto the L6280, which is secured by a lockable gate. There is safety signage erected along the site boundary at relevant locations. The Registered Area includes internal lighting and security cameras.

The working hours of the quarry are:

- Monday-Friday 08:00 – 18:00
- Saturday 08:00 – 14:00 and

- Sundays/Bank Holidays – closed.

Staff numbers are:

- On-site: 15-20
- Off-site: 5-6

3.4 Utilities

The Registered Area is powered by the ESB sub-station located just inside the entrance gate. Prior to the sub-station, the hot-mix macadam and concrete crushing plants were powered by diesel generators.

The Registered Area is supplied with mains water for welfare facilities. Sewerage for the welfare facilities and the staff canteen is provided by a septic tank located close to the office and by a port also close to the main gate. These are emptied by a suitable contractor as needed.

Process water for the concrete batching plant, the hot-mix macadam plant and the wheel wash are supplied by harvested rainwater and surface run-off collected in the settlement lagoon and settlement pond.

3.4.1 Site Drainage

There is a yard interceptor drain at the entrance gate which prevents surface water from exiting onto the public road. This drain discharges via an informal open channel into a series of four concrete-lined settlement tanks close to the site office. Water from mineral washing, washing out of vehicles and the wheel wash also collects in these settlement tanks. The discharge from the settlement tanks is passed through a hydrocarbon interceptor before flowing through an underground culvert into an open drain on the eastern side of the L6280. From here it flows in a north by north-westerly direction and into a wetland prior to entering Dunsrim Lough.

3.5 Restoration and Aftercare

No part of the Registered Area has undergone any form of restoration. However, a full restoration plan has been submitted to MCC. A modification of the previously submitted restoration plan has been appended to this EIAR, in volume 3, taking into account the current environmental knowledge.

4 ALTERNATIVES CONSIDERED

Although the rEIAR is retrospective in nature, the alternatives considered here are from the perspective of the Applicant when deciding to progress with the Development.

4.1 Alternative Locations

Extraction/quarrying can only take place where there is suitable material. The nearest alternative high PSV source in regular production is in north Longford, with lesser quality materials available elsewhere in the north-east. Alternative site locations that would produce the same volume of aggregate of the required quality were not readily available.

4.2 Alternative Layout

Potential does exist for an alternative layout within the Site. The primary crusher could have been positioned within the Permitted Area adjacent the secondary and tertiary crushers, thereby removing these activities from the Site and concentrating them in the Permitted Area.

However, industry standard is to operate a mobile primary crusher which moves in tandem with the active quarry face. This is the optimal approach and as such, in keeping with

Applicants commitment to continuously optimising operations. It would have been possible to move the final processing plant closer to the quarry face. This would reduce the need to transport materials across the Site following primary processing. However, moving the final processing facility away from the macadam plant and services present in the northern portion of the Site would require double handling of smaller aggregates more often. This would reduce productivity. In addition, services would need to be extended further into the quarry which could provide obstacles to operational activities.

4.3 Alternative Actions

In 2020, MCC concluded that the Site was working without planning permission and that the planning permission obtained in 1983 applied only to the Permitted Area. Subsequently, a Warning Letter was sent to the Applicant requiring the cessation of all extraction activities outside the Permitted Area and complete restoration of the Site within two years.

4.3.1 'Do Nothing' Option

The 'Do Nothing' option does not exist in this situation, as the Warning Letter from MCC means that some form of action is required. The alternatives are:

- Closure and restoration as per the Warning Letter; or,
- Obtain substitute consent.

4.3.2 Closure and Restoration

Closure and restoration of the Site would have resulted in the cessation of the operations within the Permitted Area, leading to the loss of local jobs and the removal of the quarry's aggregates from circulation. The loss of this source of aggregates could lead to a greenfield site elsewhere being opened to extraction as an alternative source, leading to environmental impact assessment elsewhere.

4.3.3 Obtain Substitute Consent

The Applicant obtained independent legal advice which concluded that the Applicant had grounds for applying to ABP for leave to apply for substitute consent. This process will regularise the planning situation at the Site. Substitute Consent will not allow extraction activities at the Site to resume, but it will mean that historic extraction activities outside the Permitted Area would be regarded as having taken place with planning permission.

The application for Substitute Consent was chosen as the preferred option.

5 POPULATION AND HUMAN HEALTH

The Development has been an important local employer since extractive work began, and no complaints have been lodged with the owner or with MCC. The Applicant has confirmed there have been no accidents or incidents associated with the Development. The Proposed Development is not a health-related project and will not create additional specific demands on the local health infrastructure.

It is considered that the Development is and was aligned with the objectives/policies of the;

- National Planning Framework (NPF),
- National Development Plan (NDP),
- Regional Special and Economic Strategy (RSES), and
- County Development Plan (CDP).

The Development is of greywacke, a high PSV rock resource of regional and potentially national importance, given the shortage of 'friction course' resources across the country. The

nearest high PSV source in regular production is in north Longford, with lesser quality materials available elsewhere in the north-east.

This particular resource is, therefore, of regional importance for the production of chippings for surface dressing of roads, the main form of road maintenance in Ireland. Industry experts suggest that high PSV sites represent only 4-5% of extractive sites in the country.

The residual effect with regard to human health has been long-term and imperceptible to not significant effect.

6 BIODIVERSITY

There are three European Sites within the 15km search radius of the Site:

- Lough Oughter and Associated Loughs Special Area of Conservation (SAC),
- Kilroosky Lough Cluster SAC and
- Lough Oughter Special Area of Protection (SPA)

There are no NHAs and 11 pNHAs located within the initial 15km search radius of the Site. A remedial Appropriate Assessment Screening Report (rAASR) was prepared to accompany application for Leave to apply for Substitute Consent under Section 177C, which was previously processed and the findings of which accepted by the Board.

From the assessment, it is concluded that the Site is not directly connected with or necessary to the management of a Natura 2000 site. It has not resulted in any significant impacts on the integrity or qualifying interests of any identified Natura 2000 sites to date either on its own, or in combination with other plans/projects to date.

The mitigation measures set out in the rEIAR have proven to work and that the surrounding environment has not been significantly affected by the Site. The proposed measure(s) will further ensure that emission limits under the existing discharge license will be complied with and that there was and will continue to be no effect on the water quality downstream of the Site. Therefore, the residual impacts on biodiversity are imperceptible.

The residual impacts on biodiversity will be imperceptible.

6.1 Habitats

The current habitat within the Site is an operational quarry. The dominant habitat is active quarry bounded by hedgerow, scrub and recolonising bare ground.

Previous habitats are identified as agricultural grassland fields, intersected by hedgerows and a small patch of mature trees. The dominant habitat within the Site prior to the expansion of the quarry works was improved agricultural grassland. It is not known if this land was used for growing arable crops or as grazing pasture for livestock, although, the imagery identifies more with grazing pasture for livestock. Nonetheless, the monoculture of this agricultural land was of low ecological value. However, the treeline and hedgerow around the boundary of the site has been replaced and/or enhanced to reduce the visual impact of the quarry. This has increased potential roosting/ foraging for mammal and bird species.

No invasive species were identified onsite. However, they are likely to be in the general area.

6.2 Fauna

A Survey to identify habitats and the suitability of the various habitats and other features present to support fauna was carried out on 22 September 2022.

A preliminary roost assessment for bats was carried out. Given the habitats present prior to extraction works at the Site, it is considered that the Site would have been of Local Ecological Importance in relation to bats.

The structures within the Site did not comprise suitable roosting features for bats. No evidence of bat presence was found / observed during the survey undertaken. Therefore, all structures within the Site were assessed as being of negligible suitability for roosting bats.

Common species of birds were observed feeding over adjacent land parcels and/or using the hedgerow on the boundary of the Site. Due to the assemblage of common species identified using the boundary habitats, surrounding land parcels and the presence of the nesting rooks, the Site is considered to be of Local Ecological Importance in relation to birds.

The low availability of suitable roosting habitat within the Site prior to the extension works and the retention of the boundary hedgerows, would have had imperceptible disturbance/displacement on general breeding bird species in a local context.

Wet grassland was identified within the surrounding land parcels to the south of the Site. This habitat is suitable for amphibian species. However, no sightings or evidence of amphibian species were identified during the survey. The attenuation ponds within the existing quarry do not comprise suitable habitat for amphibians.

The surrounding fields comprise potential commuting habitat for reptiles, however, there is no suitable basking, hibernation or habitat mosaic for reptile species.

6.3 Residual Impacts

The mitigation measures set out in the rEIAR have proven to work and that the surrounding environment has not been significantly affected by the Site. The proposed measure(s) will further ensure that emission limits under the existing discharge license will be complied with and that there was and will continue to be no effect on the water quality downstream of the Site. Therefore, the residual impacts on biodiversity are imperceptible.

Following on from S261 registration, an after-care plan was created for the whole Site. A further after-care plan has been created for the Substitute Consent area as it stood when work ceased in this area in 2021. With the implementation of the restoration plan as detailed in Appendix 3-3 there will be a neutral to positive effect at the Site post development.

7 LAND AND SOILS

Based on the topographic survey, the Site has been extracted to a depth of approximately 105mAOD. The average ridge height is estimated at 130M od.

Bedrock beneath the Site comprises of pale to dark green, non-calcareous greywackes with beds of red shale known as the Coronea Formation.

The Site lies within a Monaghan County Geological Site (CGS) – the Scotshouse-Redhills Cross-cutting Ribbed Moraines, covering approximately 4,280ha over an area covering ca 12km east-to-west point and ca. 6.5km north-to-south and sitting partly within County Monaghan and partly within County Cavan.

The soils and their condition would have been subjected to a slight adverse impact from being excavated and constructed into berms. This impact is considered to be reversible though as part of the restoration works, where the soils will be reinstated and planted with grass seed.

The historic extraction likely had a slight long term negative impact on the geology and geomorphology within the CGS. However, the extracted area within the Site constitutes <1% of the total area of the CGS.

MOR visited the Site on 10th February 2023 to walk the land and observe the ground conditions and the quarry face. Given that no evidence of contamination was observed, no pollution incidents reported, soil materials stripped during the site preparation phase have been stored onsite and will be re-used as part of the restoration plan it is considered that the residual impact on soils will be adverse but “not significant”. Given that no evidence of contamination was observed, no pollution incidents reported, soil materials stripped during the site preparation phase have been stored onsite and will be re-used as part of the restoration plan it is considered that the residual impact on soils was “not significant”.

Given the widespread nature of pasture farmland across Ireland and after the restoration plan has been implemented, the site will be restored to grassland, it is considered that the residual impact on land use was “not significant”.

Given the previous extraction activities have resulted in removal of bedrock geology, the extensive nature of Scotshouse-Redhills moraines, the wider Rockcorry-Cootehill moraines and the scale of the Site was “not significant”.

As a result of the mitigation measures and nature of the development, the residual impacts on land, soils and geology as a result of the Development were “not significant”.

8 WATER

The Site is within the Erne hydrometric area and the Subcatchment Finn. A subcatchment divide is located ca. 134m to the south of the Site. The River Gortnana is located ca. 453m north-east of the Site. Dunsrim Lough is downstream of the licensed discharge point for the Registered Area.

Figure 8-1: Hydrological Connection and Discharge Points



A review of the OPW flood risk mapping indicates that there is no potential risk of fluvial / pluvial flooding on / near to the Site. This is in-line with the experience of the operator.

The entire Registered Area is underlain by a Poor Aquifer-(PI) - Bedrock which is Generally Unproductive except for Local Zones.

The south-western part of the Site is classified as having Extreme (E) vulnerability, whereas the north-eastern section, along with a small section in the north-western corner of the Site, is classified as having Rock at or near Surface or Karst, which is in-line with observations on site of the extent of the exposed rock ground through the majority of the Site, with some lands in the southwest still containing some thin covering of soils.

Based on the low permeability of the bedrock underlying the Development, there was likely an imperceptible impact on groundwater availability for groundwater abstraction in the vicinity of the Site.

The residual impact from the Development on groundwater availability is therefore deemed imperceptible. Moreover, analysis of the groundwater beneath the site has

In relation to surface waters, the Site has a discharge license, relating to a discharge point behind the portal frame workshop. This discharge point allows for surplus water up to 4L/s or 360m³/day was set to be discharged to the land drain adjacent the road. From the monitoring

results reviewed, it is considered that the discharge may have had a slight adverse long-term impact on the drainage ditch. However, this land drain is a functional waterway to prevent flooding on the road, and fields, and not a natural stream or river, as such the sensitivity is deemed negligible to low, giving an overall effect of not significant. The land drain enters a wetland, ca 150m to the north of the Site. It is considered that after surface water has passed through the wetland, the effect on Dunsrim Lough, further downstream is “not significant”. It is considered that after surface water has passed through the wetland, the effect on Dunsrim Lough, further downstream is “not significant” due natural attenuation of nutrients.

As such, impact on the downstream section of River Gortnana were likely imperceptible given the low magnitude of effect at the Dunsrim Lough.

It is considered that once the Restoration Plan has been implemented (i.e. seeded with grass), the potential for suspended solids and other deleterious items entering the discharge from the Site will be minimised, through the reduced presence of sediment and decreased potential for run-off, thereby potentially reducing the effect of run-off from the Site to imperceptible.

9 AIR QUALITY

The Construction and Operational Phases of the Development were assessed to determine impacts on air quality in relation to sensitive receptors and the environment.

The main potential impacts from the historical activities associated with the Development were airborne particulate matter (PM10) and nuisance dust deposition (Bergerhoff dust).

A baseline air quality study was carried out. The Development lies within Zone D (Rural Ireland) of the EPA's air quality monitoring network. The closest EPA station to the Development is Cavan Town (Station 78), ca.15km to the south of the Site. This provided the background concentration for ambient dust.

Bergerhoff monitoring was conducted at six (6No.) locations around the Registered Area, from November 2022 to January 2023. This provided the baseline environment for dust deposition. Across the entire monitoring period, all dust deposition values were below the TA Luft limit value of 350mg/m²/day.

Topsoil and overburden have been stripped and used to create berms around the periphery of the Site. The rock is then extracted via drilling and blasting. The blast rock is subjected to primary processing prior to transport back to the Permitted Area for further processing. This plant was of high-specification, highly efficient and fuel-efficient.

A construction dust risk assessment was completed in accordance with guidelines from the Institute of Air Quality Management. This risk assessment showed the risk of impact from dust deposition was “negligible” for all sensitive receptors. This was primarily due to the distance of receptors from the Site, the level of activity and the low frequency of wind blowing from the direction of the Site towards receptors. The findings of this risk assessment were further backed up by the fact Applicant has not received a complaint in relation to dust.

There was no requirement to assess the risk of ambient dust (or PM₁₀), as the background concentration of PM₁₀ in Zone D is considered to be sufficiently low, meaning there would be little risk of annual air quality standards being exceeded. Mitigation measures previously implemented at the Site include;

- Training was provided to Site personnel on dust mitigation measures,
- Boundaries of the Development were regularly inspected for potential dust,
- Public roads near the Development were regularly inspected for potential dust.

There has been no monitoring completed at the Quarry Site to date. There were no conditions pertaining to monitoring, in the absence of complaints or concern in relation to dust control.

Based on the receiving environment, type and intensity of activities (associated with the Development and will be associated with the Restoration Plan), the mitigation measures employed, the residual effect on air quality from dust is considered to be imperceptible.

Based on the receiving environment, type and intensity of activities (associated with the Development and will be associated with the Restoration Plan), the mitigation measures employed, the residual effect on air quality from dust is considered to have been imperceptible.

10 CLIMATE

A desk-based assessment was carried out to determine the impact of the Development on national Greenhouse Gas (GHG) emissions in context of global climate change. The Proposed Development's activities and associated GHG emissions were categorised according to the construction and operational phases. The Development's activities and associated GHG emissions were categorised according to the construction and operational phases. These were compared to historical national emission projections for the relevant sector.

Due to the size and nature of the Development, there was no potential historical impacts on microclimate. As such, the potential historical impacts of the Development on microclimate were not assessed further.

The primary source of Scope 1 GHG emissions associated with the Development is from the operation of machinery and machinery movement. The estimation of the tonnes of CO₂e ('e' - equivalent) that were emitted as part of the historical operations of the Site were determined using the most recent conversion factors as they were the highest values attributed to the fuel type (100% mineral diesel) since 2016.

10.1 Site preparation Operational Phase

The Site preparation phase and operational phase have been considered together for the purpose of this assessment. Emissions associated with the Development was discussed in the context of the primary operational period, which occurred between 2010-2020.

The direct GHG emissions arising from the Site preparation and operational phase of the Development arose from energy consumption and transport. Although these emissions, based on the assessment undertaken did not have a significant impact in the context of annual national GHG emissions

Emissions associated with the historical operations of the Development was from the operation of plant equipment and movement of HGVs onsite

Based on the average GHG emissions attributed to Road Transportation between 2010-2019 (11.1Mt of CO₂e), the Development contributed approximately 0.01% of the emissions. cumulative emissions associated with the Development and Permitted Area, only contributed to 0.03% of the total emissions associated with Road Transportation and therefore the impacts are determined as "imperceptible" in a national context.

Although these emissions will not have a significant impact in the context of annual national GHG emissions, there are a number of mitigation measures incorporated into the Development design to optimise and limit GHG emissions Mitigation measures included;

- Preventative and regular maintenance of plant and equipment; and
- The use of low energy equipment (where practicable).

The restoration plan, once implemented, is likely to provide some level of carbon sequestration, however given the minor extent of the Site, this is likely to be imperceptible.

The Residual effect on national GHG emissions as a result of the historical operation of the Development is classified as imperceptible based on the site and type of the Development.

11 NOISE AND VIBRATION

A comprehensive noise and vibration impact assessment was conducted based on best practice guidance and statutory and non-statutory noise impact assessment criteria in relation to construction.

The assessment on vibration takes account of historical blasting events, which produce air over-pressure and vibration. Site-associated traffic vibration was considered, but was then screened out for further assessment, as no significant vibration impacts from traffic arising from the Development was deemed likely.

Noise modelling was carried out using Soft Noise Predictor version 2022.11 software. The noise model incorporated the Site-specific noise sources and the layout of the local environment but did not incorporate ambient sources (e.g., road traffic). The model assumed all sources were fully operational for the full working day.

A total of eleven (11No.) Noise Sensitive Receptors (NSRs) were identified in the locality. Ambient noise monitoring of the daytime sound levels was conducted in 2022 and 2023. The ambient acoustic environment was found to be influenced by noise from agricultural, transport and quarrying sources from within the Permitted Area, with the over-all existing sound levels at the Site being low to moderate in 2022. Following implementation of improvement to the on-site asphalt plant the 2023 noise survey found the noise impact to be lower.

Noise during the historic Site preparation would have included noise from the required plant and equipment, e.g., excavator and bulldozer. Based on typical noise references for this plant type, it can be calculated that the noise experienced at the NSRs would have been within guideline figures. Vibration impacts would have been imperceptible.

Noise during historic operational periods at the Site would have consisted of:

- Blasting events. These were monitored for air over pressure and vibration by the blast specialist. The results were documented in blast records which demonstrate that each event was compliant with the industry standard limits.
- Processing noise from the various plant and equipment used to crush and screen the rock. A noise model was prepared using specialist acoustic software and determined that noise levels at all NSRs would be below industry standard limits deemed to be 'noise nuisance'.

Noise during any restoration work will be associated with the spreading of topsoil, seed planting and the setting of hedgerows. Much of this work will occur within the existing pit floor and will require plant such as tractor, bulldozer and excavator. It is not anticipated that this phase will produce noise in exceedance of guidelines.

No noise complaints have been registered with Scotshouse Quarries Ltd or with the County Council. The Development has been modelled and assessed to have operated within typical industry standard noise limits during the preparation and operational phases.

In relation to noise and vibration, the residual effect on NSR's and the environment is deemed to have been long term not significant on a local level, and imperceptible in the wider environment.

12 LANDSCAPE AND VISUAL

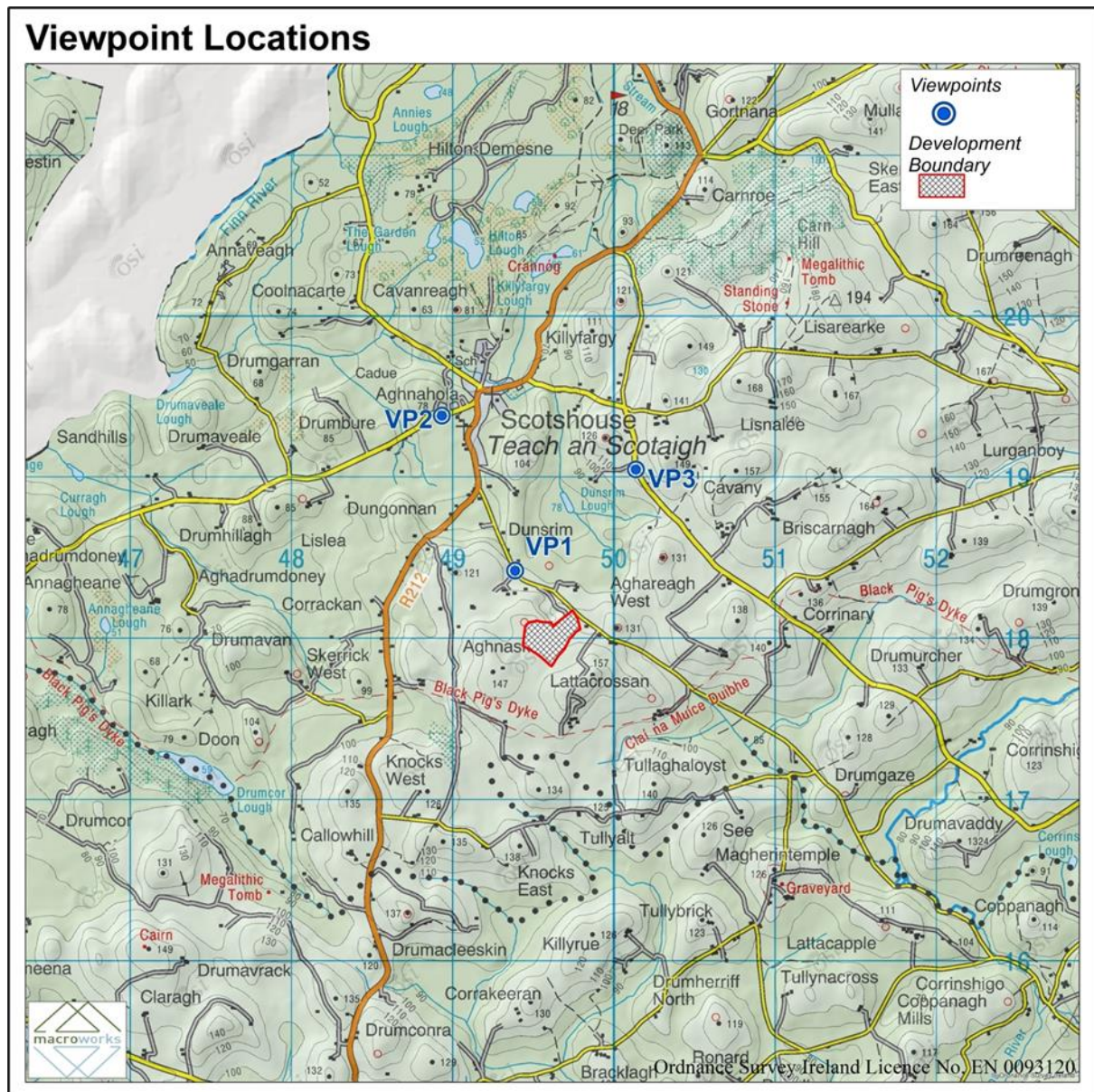
A Landscape assessment was undertaken to describe the visual context of the Site and assess the historic impacts of the Development on the local landscape in terms of both landscape character and visual amenity. This rLVIA informed the writing of Chapter 12 of the rEIAR.

A Remedial Landscape and Visual Impact Assessment (rLVIA) that involved assessing three (3 No.) Visual Receptor Points (VRPs) representing a range of viewing angles, distances and contexts was carried out. An assessment was made of the extent of the local area from which either the Site, the Permitted Area or the Registered Area was likely to be visible. The impact of the Registered Area was assessed for a distance of 3km from the quarry boundaries.

An LVIA requires the separate assessment of:

- Landscape Impact – the impacts of the development on the landscape itself. This looks at the effect on the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. The landscape assessment looks at the physical impacts on the terrain and the consequences of those impacts for landscape character. The landscape character, its value and sensitivity and the magnitude and significance of likely landscape effects are all considered.
- Visual Impact – the impacts of the development on specific views and the visual amenity experienced by people. Visual impacts can occur from obstruction (the blocking of a previous view by the development) or intrusion (the interruption of a view). The key views, the existence of designated scenic routes/views, the local community views and amenity and heritage features are amongst the considerations when assessing visual impact.

Figure 12-1: Viewpoint Location Map



Normally, an LVIA will assess the future impact on the existing view. The rLVIA for this Substitute Consent application was required to assess the impact the Development and its Site would have had on historic views. This therefore required a desktop study of the available maps and aerial photography of the Registered Area and the surrounding lands.

The rLVIA assessed that the pre-Development landscape sensitivity of the immediately local landscape would have 'Low'¹ and that the magnitude of landscape impact should be assessed as having been 'High'. This gave an over-all landscape effect of 'Moderate'.

The rLVIA assessed that the pre-Development landscape sensitivity of the wider local landscape would have been 'Medium-low' and that the magnitude of landscape impact should be assessed as having been 'Low-negligible'. This gave an over-all landscape effect of 'Slight-imperceptible.'

¹ These categories relate to the UK Landscape Institute and IEMA Guidelines and do not directly correlate to the EPA categories as described in the rEIAR Chapter 1.

Over-all the magnitude of change in the location of the Site and its immediate context was categorised as ‘Low’, with ‘Slight-imperceptible’ effects.

The Visual Receptor Points (VRPs) were deemed to have been of ‘Medium-Low’ visual sensitivity pre-Development. The Registered Area was deemed to have been visible to 16.5% of the wider study area, with the Development alone being visible to only 4.6% of the wider study area. The area from which any part of the Site was visible was entirely to the north and east, as the local landscape hid the quarry from any view to the south.

Each VRP was assessed, with the results summarised in Table 12-1 below.

Table 12-1: Summary of Visual Effect at VRPs

Point	Magnitude of Change	Site Visible	Significance of Effect	Quality of Effect
VP1	Low	Yes	Slight	Adverse, long-term
VP2	Negligible	No	Imperceptible	Neutral, long-term
VP3	Medium-low	Yes	Slight	Adverse, long-term

The assessment concluded that the Development did not obstruct or unduly impact on views from the local community.

13 CULTURAL HERITAGE

A desk-based assessment and site survey were undertaken by an experienced archaeologist to identify the likely significance and sensitivity of any known or any potential archaeological, architectural and cultural heritage sites.

There are no structures within either the Site, the Registered Area or the wider study area listed in the National Inventory of Architectural Heritage. There are no recorded monuments within either the Site or the Registered Area. None of the ten (10No) upstanding structures within 0.3km of the Site that were identified on the 1908 edition of the six-inch OS map were deemed to have any architectural impact or significance.

There are two Recorded Monuments within 500m of the Site. The situation with regard to these monuments is set out in Table 13-1 below. All remaining Recorded Monuments in the area were deemed to be too far from the Site to be impacted in any way. There were no entries in the Sites and Monument Record within the Site.

The examination of the 1st and 2nd edition six-inch OS maps and the 1st edition 25-inch OS map did not indicate any previously unrecorded archaeological sites or cultural heritage materials in the Site. The examination of aerial photography from 1995 to date did not indicate any additional archaeological sites.

Examinations of archaeological works on prehistoric artefacts did not reveal any additional material from the area around the Site. An examination of the Excavations Bulletins indicated that no licensed excavations have been carried out within the site. Two excavations have been carried out in the wider study area:

- Excavation of part of the Black Pig’s Dyke, which found no artefacts;
- Excavation in the vicinity of Black Pig’s Dyke.

A field inspection carried out on 17th of November 2022 found no evidence of cultural, archaeological or architectural heritage materials at the Site.

Table 13-1: Recorded Monuments Close to Site

Monument	Description in RoM	Situation	Conclusion
MO021-006	Ringfort – rath. Situated on a shelf on a N-facing slope. It is not depicted as a rath on any map but it was described ca.1940 as a subcircular area (dims c. 35m E-W; C.33m N-S) defined by a stony bank (Wth c.1m; H c. 0.6m) and hedge E-S-W with no visible fosse.	Area of notification extends into Site	Not indicated on any OS map. On the ground does not present as type associated with ringforts. May have been identified as monument in error. Monument location has not been damaged by quarrying but quarrying has had a permanent, significant, negative impact on the setting of the monument.
MO021-008	Ringfort – rath. Situated on a rise which is on a NE-facing slope and overlooking a col with a hill rising to the NE. This rath is the more northerly of two at Lattacrossan represented on McCrea’s Map of County Monaghan (1793), and it is also depicted on the 1834 and 1907 editions of the OS 6-inch map. This is an oval and domed grass-covered area (dims 38m NNW-SSE; 32.3m ENE-WSW) defined by a scarp (Wth 1.5m; H 1m at N to 3m at SE) that is incorporated into an overgrown field bank and hedge SE-W-NW. There is no visible fosse and the original entrance is not identified. The perimeter is damaged by quarrying SSE-SSW.	Ca 250m from Site boundary	Has not been, is not and will not be impacted by Site

After the proposed mitigation measures have been implemented, there will no residual impacts on cultural heritage present within the Site or the vicinity.

14 MATERIAL ASSETS – TRAFFIC AND TRANSPORT

The Site is served by the L6280 local road, which forms the eastern boundary of the Registered Area. A transportation and traffic impact assessment was undertaken, the findings of which are presented in Chapter 14 of the rEIAR.

The scope of this assessment included a junction count at the point of entry from the Registered Area to the L6280. The baseline traffic flows of the adjoining roads were also established, and data with regard to historic staff volumes and tonnage of aggregate extraction was gathered to allow the calculation of traffic volumes during the period of active extraction across the Registered Area.

The historic volume of traffic arising from the Registered Area was calculated as being:

- Staff cars – 15-20 vehicles per day,
- HGVs (Rigid Truck) – 54 vehicles per day and
- HGVs (Articulated Truck) – 11 vehicles per day.

The Transport Research Laboratory computer programme JUNCTION 10 – PICADY was utilised for junction analysis.

The detailed assessment concluded that the surrounding roads and the junction of the L6280 with the entrance/exit point from the Registered Area continued to operate within capacity during the active working of the Development.

It can therefore be concluded that the traffic from the Site and impact on the surrounding road network or the nearby residences was “negligible”.

15 INTERACTION OF ENVIRONMENTAL IMPACTS

In accordance with Environmental Impact Assessment Report (EIAR) best practice procedures, the cumulative impacts associated with all of the relevant interactions has been addressed in the specific specialist chapters of the main EIAR report.

16 SCHEDULE OF ENVIRONMENTAL COMMITMENTS

As part of the EIAR, all of the mitigation measures arising from each of the individual assessments for implementation during the Restoration phase were summarised in an overall Schedule of Environmental Commitments, that Scotshouse Quarries Ltd. are fully committed to implementing. The implementation of these measures will ensure that the Restoration works will not result in any significant adverse impacts on the receiving environment.