



An
Coimisiún
Pleanála

Technical Note

R319722_TN1

Development	Retention permission to retain previously quarried area and permission for associated works
Address	Crohane, Clonkeen, Killarney, Co. Kerry V93 X2EH
Applicant	Sunville Construction Ltd
Type of Application	Planning Appeal
Topic	Water, Noise, Vibration and Dust Impact Assessment: adequacy of information provided
Scientist	Finbarr Quigley, BSc. MSc.
Planning Inspector	Suzanne White
Date	26 th November 2025

Contents

1.0	Introduction	2
2.0	Assessment	4
3.0	Conclusion	7

1.0 Introduction

1.1. Scope of Report to Inspector

1.1.1. Following review of the Environmental Report received by the Commission, specialist support is requested regarding:

(a) Whether adequate information has been provided to demonstrate that:

- There is no surface water discharged from the site
- The silting pond is adequately sized to cater for the quarrying activities carried out and the further processing of quarried materials proposed.
- Risks to groundwater from the works completed and proposed can be ruled out.

(b) Whether adequate information has been provided to enable assessment of:

- the noise, dust and vibration impacts of the quarrying completed and proposed processing of aggregate.

1.1.2. In my capacity as Senior Environmental Scientist with over twenty years of professional experience, I have the relevant expertise to provide a professional opinion in relation to the items above.

1.1.3. This report to the Planning Inspector and available to the Commission is a written record of my review and examination of the submitted information and will support the Inspectors report in relation to this application .

1.2. Documentation

1.2.1. For the purpose of this specialist report, I have read all the documentation attached to this case relating to environmental matters including inter alia, details of the

development, the Report in Support of Appropriate Assessment, the Environmental Report (ER), the Planning Authority Reports, submissions, appeal documents, drawings and site layout plans, and all associated documentation prepared by the Applicant along with any observations received by the Commission.

1.3. Site Location and Description of Proposed Development

- 1.3.1. The subject site is located in Crohane Wood, in the townland of Crohane, approximately 13km southeast of Killarney in County Kerry. The development site has an area of approximately 2.3ha and lies within an area of coniferous woodland on the southern slopes of Crohane Mountain. The surrounding landscape is dominated by upland areas, commercial coniferous forests and a low-density of residential properties present along the R569 road which lies 150m south of the site.
- 1.3.2. The proposed development is described in detail in the Inspectors report and not repeated here.

1.4. Site Visit

- 1.4.1. On the 17th November, I conducted a site visit to the quarry for the purposes of carrying out a visual inspection of the following features; a watercourse upstream and downstream of the site, the silt traps and settlement ponds, the layout with regard to surface water run-off and the general layout of the site. During the inspection, several photographs were taken, some of which are reproduced in this report (Appendix 1).
- 1.4.2. I noted the presence of a watercourse which flows from the NW direction before entering a culvert upgradient of the quarry, flowing underneath the quarry floor and emerging on the East side of the quarry before flowing downhill and entering the LOO river approx. 260m SE of the quarry. I noted that where the pipe carrying the watercourse emerged from under the quarry floor, there was evidence of moderate levels of silt present in the watercourse which was not noted on the upstream side. This suggests that some fine particulate matter may be carried by rainwater which flows through the quarry floor and into the pipe which traverses the site.
- 1.4.3. I noted that the silt ponds are not linked directly to any surface waters adjacent to the site and there is no pumped connection to any surface waters from the large settlement pond to the east of the site. All wash waters employed are recirculated and re-used on site. It is likely that some water from the settlement ponds will flow

downward into the bedrock through fractures in the rock however, the water table has been established to be at significant depth (>50m) below the quarry floor level providing a high degree of protection to groundwaters.

2.0 Assessment

2.1. Risk to Surface Waters

- 2.1.1. Having regard to the documents submitted with the application and my observations during the site visit, I am satisfied that there are no direct discharges of water from the site into surface waters. Water from the settlement pond is reused in the washing of stone and recirculated via two silt traps back into the settlement pond. There are no direct pumped or gravity-fed discharges from the site into any adjacent watercourses.
- 2.1.2. Rainwater that falls on the floor of the quarry seeps down through the floor and soaks into the existing bedrock and eventually into groundwaters. The documents provided and the observations during the site visit have demonstrated that a watercourse has been diverted and culverted under the floor of the quarry. This watercourse emerges from under the quarry before discharging into a stream on the East side of the development. This culverted watercourse is likely to be acting as a preferential pathway for rainwater which falls on parts of the quarry floor, and it is possible that some fine particulate matter is carried by this rainwater downwards into the pipe which discharges into a surface watercourse as described. No information on the type of pipe (perforated or solid walled) installed under the quarry has been provided. Also, no monitoring of water quality upstream and downstream of the quarry was carried out.
- 2.1.3. Section 8.3.7 of the ER states that “there are no significant receiving waterbodies located within or in the immediate vicinity of the proposed development site.” It is noted that a tributary of the river LOO (waterbody LOO_010) has been diverted and culverted under the quarry floor, and the requirements of Article 4 of the Water Framework Directive (to achieve and maintain good status) apply to this waterbody. The most recent macroinvertebrate (Q-Value) sampling of the LOO river undertaken by the EPA in 2022 has shown that the status of the LOO_010 waterbody has dropped from Good to Moderate due to the Q-Value at LOO Bridge (downstream of

the quarry) dropping from Q4 to Q3-4. The Q-Value at Aughananus Br. (upstream of the site) remained at Q4, which suggests a potential source of contamination between these 2 sampling points, a stretch of approximately 5km. The EPA Q-Value report does not identify a probable cause for the observed drop in quality.

- 2.1.4. Discharges of water containing fine particulate matter (suspended solids) can cause significant ecological impacts on macroinvertebrate and fish life in surface waters. While there are no direct discharges from the quarry site into surface waters, the observations during the site visit and the absence of water quality monitoring downstream of the site mean that significant impacts on surface waters from the operation of the quarry cannot be ruled out.

2.2. Risk to Groundwaters

- 2.2.1. Having regard to the documents submitted with the application and my observations during the site visit, I am satisfied that groundwaters are not at risk from the development at this site. The ER identified that a borehole installed in February 2023 extended to 52m below ground level and was noted as being dry – i.e., no ground water encountered. Based on information from that well, the quarry floor is considered to be a minimum of 50m above the water table.
- 2.2.2. I am satisfied that the mitigation measures identified with regard to fuel use and storage once implemented, will provide sufficient protection to groundwaters and no significant impacts to groundwater quality will arise from the development.

2.3. Sizing of the Settlement Ponds

- 2.3.1. The settlement pond is approximately 970m² in surface area with an average depth of approximately 2m (verbal comms.) giving an approximate volume of 1,940m³. This pond is not receiving waters from most of the floor of the quarry during rainfall events and has a 0.5m high soil berm along the eastern side and solid bedrock along the northern, western, and southern sides. As mentioned above, rainwater falling on the floor of the quarry seeps downwards into the ground underneath the site. The washing plant is used infrequently (verbal comms.), and the capacity of the settlement pond is sufficient to provide waters to the operators of the facility.
- 2.3.2. Because no wash waters are discharged from the site to receiving waters, the settlement pond is considered to be a low-risk element of the development, with

regard to water quality. I am satisfied that the operation of the settlement pond will have imperceptible impacts on surface waters and groundwaters.

2.4. Adequacy of information in relation to dust impacts

- 2.4.1. The applicant has identified that the primary atmospheric emissions within the quarry site will be from fugitive dust and PM (PM10) emissions generated by trucks travelling along the unpaved haul roads, access road and at the aggregate processing plant. The potential for substantial fugitive dust and PM10 emissions to be generated from stockpiles, quarry floor, haul routes within the quarry void and from the access road will depend largely on the surface moisture content due to frequency of rainfall or from artificial dust suppression.
- 2.4.2. The ER states that a prevailing damp climate significantly reduces the potential for conditions to arise where dust is likely to become a nuisance. Precipitation records for the quarry area indicate that the annual number of 'wet days' (daily rainfall > 1mm) is about 234 days per year. This type of rainfall pattern will help to reduce dust-blow from the activities associated with the development. Therefore, for about 64% of the time, especially during the winter period the surface of roads and processing will tend to be saturated and so even during days of high wind speeds fugitive emissions of dust and PM will be reduced.
- 2.4.3. The ER outlines a series of mitigation measures for impacts from dust emissions and outlines the proposed contents of a Dust Management Plan to be implemented. Monitoring of dust deposition at 4 sites is also proposed, the frequency and method of reporting to be agreed with the Planning Authority prior to commencing operation of the dust gauge network.
- 2.4.4. I am satisfied that given the absence of sensitive receptors within 850m of the site and the mitigation measures outlined in the ER to address potential dust impacts, the emission of dust from the development will have imperceptible impacts.

2.5. Adequacy of information in relation to noise and vibration impacts

- 2.5.1. The ER stated that following an assessment of noise and vibration impacts, the key issue identified was the potential for noise impacts on nearby Noise Sensitive Locations (NSLs) arising from the operation of plant and equipment associated with the processing of aggregate material on site. No further assessment of vibration impacts was discussed in the ER. The nearest dwelling (sensitive receptor) to the

site is located 850m to the west of the quarry with the second closest dwelling being >1km away and located to the east of the boundary. Given the separation distances involved and the absence of any rock blasting, the operation of plant and machinery within the site is highly unlikely to have any significant vibration impacts on sensitive receptors.

- 2.6. In relation to the assessment of noise impacts on sensitive receptors, the ER stated that the prediction of noise associated with the activity was conducted where data was available using Guidance outlined in *BS 5228: Part 1: 2009+ A1:2014, Noise and Vibration Control on Construction and Open Sites*. This standard provides sound level data for several types of plant and equipment typically used in a quarry environment. The report does not outline the types and number of plant and equipment used to generate typical source sound level data for the quarry.
- 2.7. The ER stated that modelling of sound emissions from the quarry was undertaken using the software SoundPLAN version 9.0 which implements *ISO 9613-2 Acoustics - Attenuation of sound during propagation outdoors*. This model requires an input sound level, which has not been specified in the ER. The model output was displayed in a 2D graphic which demonstrated that the predicted sound pressure level (arising from activities on the site) at the nearest noise sensitive receptor would be <40dB(A) while the quarry was operating.
- 2.8. Despite the shortcomings in the reporting of noise impact assessment as outlined above, I agree with the conclusion that the operation of the facility is not likely to result in a significant impact on the nearest noise sensitive location. The location and scale of the site, the plant & equipment types and numbers and the separation distances between the site and noise sensitive locations mean noise impacts will be minimal. Noise impacts from the site can also be controlled through conditions relating to the hours of operation and noise limits to be applied at noise sensitive receptors.

Finbarr Quigley

Finbarr Quigley
Environmental Scientist

26th November 2025

Appendix 1

Site Visit Photographs (17/11/2025)



Photo 1 - Watercourse enters culvert upstream of the quarry



Photo 2 - Watercourse emerges downstream of the quarry



Photo 3 - Watercourse downstream of the quarry



Photo 4 – Settlement pond in the quarry