

Your Ref: 01/2022/0523
Our Ref: B8LJ2959

07/07/2002

SENT BY EMAIL

planning@denbighshire.gov.uk

Dear Sir/Madam,

Town & Country Planning Act 1990 (as amended) The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017

Consolidating application by Breedon Southern Ltd for the extension of winning and working of limestone, importation of inert waste and restoration of amenity land at Graig Quarry, Graig Road, Denbigh

The Environmental Public Health Service Wales (delivered collaboratively through Public Health Wales' Health Protection Team and UK Health Security's Radiation, Chemicals and Environmental Hazards Directorate (Wales)) welcomes the opportunity to comment on the above planning application. This assessment considers actual or potential health risks from environmental hazards. Any recommendations are intended to inform planning decision-making.

This application falls under the Environmental Impact Assessment (EIA) Regulations the Environmental Public Health Service (EPHS), has not been consulted previously at the pre-application stage.

Proposed Development

This consolidating application covers both existing limestone quarry (comprising approx. 28 Ha) extraction activities and proposed extension (comprising approx. 5 Ha) to extract remaining limestone reserves and continuation of the working to the west; along with the importation of inert restoration material to bring levels back up to original ground levels on the north and lower elevations in the main body of the quarry. The period of quarrying is intended to last for a period of 25 years at an annual rate of 200,000 tonnes per annum including the consented material. The waste imported will be inert waste derived from construction, demolition and excavation operations. The anticipated quantity is 100,000 tonnes per annum.

The proposed restoration profile requires the overall importation of 1.5 million cubic meters of inert waste. In the existing quarry the stone will continue to be drilled and blasted before being moved to the mobile plant for processing where it is crushed and sorted by size. These techniques will be continued into the extension area. Processed and saleable product is loaded and transported off-site by HGV vehicles.

The quarry is located approximately 0.3km to the north of Denbigh town. The closest residential dwellings to the proposed extension are located at the northern end of Bryn Seion, approx. 250m to the south of the application boundary. There is a public footpath within the application site boundary situated on the boundary between the existing quarry and the proposed extension running north to south. This footpath is likely to be re-routed in agreement with third party landowner.

Overall Conclusion

We have some concerns about the lack of detailed assessment regarding the impact of the quarry operations on local air quality. In our view, further assessment and data are needed to support the applicant's position that activities will not be detrimental.

Public Health Risk Assessment

As part of the Environmental Statement (ES) the applicant has assessed various environmental impacts including, noise, hydrology & hydrogeology, and air quality. Where predicted impacts have been identified, appropriate mitigation measures have been developed.

A dust and air quality assessment has been submitted, which has been undertaken in accordance with MTAN1 and Institute of Air Quality (IAQM) guidance. Principal aspects identified and considered include:

- Mineral dust emissions: dust and particulate matter (PM₁₀ / PM_{2.5}) arising from site activities; and
- Vehicle exhaust emissions: nitrogen oxides (NO_x) and particulate matter (PM₁₀ / PM_{2.5}) arising from vehicles travelling to and from the site

The dust impact assessment has considered the potential impacts and resulting effects of dust and suspended particulate matter arising from the operations on nearby human health receptors. The assessment considers the nature of the site activities, distance and orientation to the identified receptors and the prevailing wind direction, and the proposed in-design and management mitigation measures. A detailed dust assessment has been undertaken due to residential receptors being within 400m of the site boundary.

Using IAQM guidance, the pathway effectiveness (distance and direction of receptors relative to the prevailing wind directions) was classified for each sensitive receptor. All receptors are upwind of the prevailing wind direction where potentially dusty winds (greater than 5 m/s) are infrequent. The effectiveness pathway was therefore classified as ineffective for all receptors. The assessment concludes that the likely dust disamenity effect of operations within the proposed quarry extension was determined for the Dust Impact Risk and the Receptor Sensitivity as negligible for all activities at all receptors.

The assessment concludes that the baseline air quality conditions at the proposed quarry extension and within the study area are likely to be well below the NO₂ annual mean, NO₂ one-hour mean, PM₁₀ and PM_{2.5} annual mean and PM₁₀ 24-hour mean air quality objectives in the operational years. There is little risk that the Process Contribution (PC) from the proposed quarry extension would lead to an exceedance of the annual mean PM₁₀ objective. The effect on PM₁₀ concentrations at sensitive receptors is has been determined as 'not significant'.

There is little actual assessment of the impact on local air quality. The applicant has suggested that tree planting and creation of bunds along the site boundary will help reduce impact of dust on the local area. However, without actual data to support this, we cannot agree with this statement. We recommend that the Regulator confirm that they satisfied with this approach, or if not to recommend a more detailed air quality assessment.

It is expected that the dust controls under the existing planning consent will be retained with additional controls specified in relation to Environmental Permitting for mobile crushing plant.

Control of emissions relies on the quarry operator applying industry best practice and techniques. The LPA should agree a Dust Management Plan (DMP) so that the amenity of the local area, including nearest residential receptors, and the nearby public footpath, is not affected. This should be made a condition of any planning agreement.

A noise assessment has considered the potential for noise generated by the operators associated with the quarry development to give rise to noise at the nearest noise sensitive receptors. Future noise and vibration levels from activities in an extended quarry have been predicted based on data from compliance noise and vibration surveys carried out as required by the existing planning permission from the site. These data have been supplemented by a baseline and noise source survey. Noise and vibration assessments were undertaken at residential locations (as approved under existent planning permission).

Taking into account embedded mitigation measures the anticipated effects show no predicted exceedences of the relevant MTAN-1 derived temporary or operational noise limit at any receptors. No vibration sensitive premises will be less than 250 meters from the perimeter of the extended quarry. The nearest properties to the west of the quarry may experience a minor increase in vibration, this is predicted to be below the existing planning permission. It is considered that significant vibration effects on the environment are unlikely.

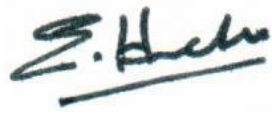
Noise and vibration (from blasting) levels, should be confirmed using actual data and the LPA is satisfied that noise will cause annoyance to nearest noise sensitive receptors for onsite operations and related onsite and offsite vehicle traffic. Should any complaints be received these need to be investigated and followed up as part of the EMS.

A Hydrological and Hydrogeological Impact Assessment (HIA) has been carried out; it establishes the likely impacts of the proposed development with reference to groundwater, surface water and flood risk. Limestone would be worked below the seasonal groundwater level and water ingress would be collected and pumped out of site in the same system as exists as present, under the control of a discharge licence. During the operations surface water will be collected and disposed of in the same manner as at present and the existing arrangements are calculated to have sufficient capacity to deal with the arisings which will also infiltrate to groundwater to some extent. Increase in flood risk both within the site and externally has been considered, particularly in combination with the potential seasonal ingress of groundwater and the capacity of the balancing system is deemed adequate at current discharge thresholds. An extensive monitoring programme is recommended to ensure that no extraordinary changes are occurring in the groundwater system. No significant groundwater concerns are raised regarding the placement of the inert restoration material and the applicant notes that this will require the granting of an Environmental Permit.

The proposed operation will be permitted by Natural Resources Wales and compliant to industry standards including mitigation for off-site nuisances.

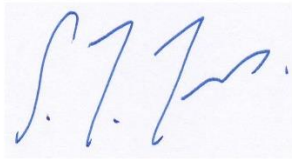
Any additional information obtained by the planning authority in relation to these comments should be sent to us for consideration. Such information could affect the comments made in this response.

Yours sincerely

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Edwin Huckle

Principal Environmental Public Health Scientist

A handwritten signature in blue ink, appearing to read 'S. Jones', with a horizontal line underneath.

Dr. Sarah Jones

Consultant in Environmental Public Health

On behalf of Environmental Public Health Service in Wales