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MAES Y DROELL QUARRY EXTRACTION OF INDUSTRIAL SAND

Environmental Statement
Volume II

Chapter 13: Community and Socio-Economic Considerations

Silica Sand Mold Limited

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Chapter 13: Community and Socio-Economic Considerations

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13 COMMUNITY AND SOCIO-ECONOMIC CONSIDERATIONS

13.1 Introduction

- 13.1.1 The Mineral Planning Authority has requested that socio-economic factors (job creation, impacts on nearby facilities and businesses) be 'scoped in' to the Environmental Impact Assessment (EIA) of the Proposed Development.
- 13.1.2 The Scoping Opinion acknowledges that there is no specific guidance that establishes a methodology for undertaking EIA of socio-economic effects.
- 13.1.3 Unlike other chapters of the Environmental Statement, this assessment is not supported by a separate technical report and can be read in isolation. It considers the likely beneficial and adverse socio-economic effects of the Proposed Development at the local and regional level. For the purposes of this assessment, the effects are classified as follows:
- Direct impacts: which are those primarily attributable to employment generated at the Site;
 - Indirect and induced impacts: which arise from changes in economic activity within the supply chain and the wider economy as a result of the Proposed Development, including the provision of goods and services; and,
 - Potential adverse impacts: on local economic receptors, including any effects on nearby businesses.

13.2 Baseline Conditions

Labour Demand and Supply in Denbighshire

- 13.2.1 Denbighshire has a relatively strong labour market, with around 43,700 people in employment, representing an employment rate of approximately 74%, and unemployment of around 3.1-3.8%. The County's workforce is therefore broadly considered to be near full employment, with many employers reporting challenges in attracting and retaining skilled labour.
- 13.2.2 The County has a resident population of approximately 98,000 people, of whom around 56,000 are of working age (16-64).
- 13.2.3 Denbighshire's working-age population is proportionally lower than the Welsh and UK averages, reflecting demographic pressures associated with an ageing population and reinforcing the importance of retaining and creating skilled employment opportunities.

Importance of Minerals and Quarrying

- 13.2.4 Whilst mining and quarrying represent a relatively small proportion of total employment within Denbighshire, the sector performs a strategically important role within the wider economy.

- 13.2.5 Mineral extraction supports the supply of essential raw materials required for construction, infrastructure delivery, manufacturing and housing development across North Wales and into England.
- 13.2.6 The industry also generates indirect employment through haulage, plant maintenance, equipment supply, fuel distribution, engineering services and environmental management.
- 13.2.7 Quarries in the United Kingdom typically provide stable, skilled and relatively well-paid jobs in rural areas where alternative employment opportunities can be limited. The sector therefore contributes disproportionately to local economic resilience compared with its direct employment numbers. In addition, mineral operations support broader regional supply chains and reduce reliance on imported aggregates and industrial minerals from more distant sources.

Economic Value of Quarrying

- 13.2.8 Denbighshire's economy generates approximately £2 billion of output annually, although productivity remains below UK averages. The retention and development of productive sectors, including mineral extraction, is therefore important in supporting economic growth and maintaining employment opportunities within the County.
- 13.2.9 In the context of a minerals development such as Maes y Droell Quarry, the principal socio-economic benefits are likely to arise through:
- Direct employment at the quarry;
 - Indirect employment within transport, maintenance, engineering and professional services;
 - Expenditure with local suppliers and contractors;
 - Supporting the construction sector through the supply of locally sourced minerals;
 - Retention of specialist skills and training opportunities within North Wales; and,
 - Contributions to wider economic activity through employee spending and business investment.
- 13.2.10 Overall, although quarrying forms only a small component of Denbighshire's employment base, it is an important enabling industry that supports construction, infrastructure and economic development across the region, with benefits extending throughout the wider supply chain and local economy.

13.3 Assessment of Socio-Economic Impact

Introduction

- 13.3.1 The economic minerals present at the Site are a very high-grade industrial sand and fine clay, which is suitable for porcelain products. The maximum annual capacity of the quarry will be 300,000 tonnes per annum of all products. The industrial sand mineral reserve is

equivalent to approximately 15 - 20 years of production and contributes to the national reserve.

- 13.3.2 Industrial sand is a nationally important mineral resource that supports a range of manufacturing, industrial and construction sectors. The British Geological Survey (2025) identifies industrial sand as an essential raw material for uses including:
- glass manufacture;
 - foundry production;
 - filtration products;
 - chemicals; and,
 - specialist construction materials.
- 13.3.3 Given the limited geographical distribution of suitable industrial sand resources, individual extraction sites can play an important role in supporting regional and national supply chains and wider economic activity. Industrial minerals, including silica sand, are of particular economic significance because they serve specialist markets and often have limited geological availability.
- 13.3.4 The British Geological Survey Mineral Planning Factsheet (2025) confirms the economic importance of industrial sand. Because deposits capable of meeting specialist chemical and physical specifications have a limited geographical distribution, individual silica sand quarries can play an important role in maintaining resilient regional and national supply chains.
- 13.3.5 Whilst quarrying more widely represents a relatively small proportion of total employment within Denbighshire, the sector's economic significance is disproportionate to its employment share. Minerals extraction provides essential raw materials that support construction and manufacturing activity across North Wales and the wider UK, whilst generating productivity and value-added benefits through extensive supply-chain linkages. The contribution of silica sand extraction is therefore of importance at local, regional and national scales.
- 13.3.6 The overall effect of the Proposed Development would be to increase the supply of industrial sand and extend the economic benefits of mineral extraction over a longer period of time.

Direct Impacts

- 13.3.7 The quarry currently employs no one. At full production, it is expected 6-7 (full-time equivalent) staff would be employed in connection with the Proposed Development. This would include employees across a variety of roles associated with the extraction of minerals and their subsequent processing and sales.
- 13.3.8 There will also be up to six long-term temporary workers during the periods of full extraction (as opposed to land-forming).
- 13.3.9 In the short to medium term, the Proposed Development would secure investment, employment and the productive use of the Site. In the longer term, it would deliver a safe, restored landscape with enhanced environmental and biodiversity value. The development

would therefore provide beneficial social, economic and environmental effects compared with the existing condition of the Site.

- 13.3.10 This represents a beneficial direct economic effect.

Indirect and Induced Impacts

- 13.3.11 The renewed operation of Maes y Droell Quarry would generate indirect beneficial effects through demand for local goods and services. Suppliers benefiting from this expenditure would, in turn, generate further demand within their own supply chains.
- 13.3.12 For a project such as that at Maes y Droell Quarry, the significance of employment effects is not derived solely from the number of onsite jobs. Mineral extraction is typically a high-value, supply-chain intensive sector in which each direct job supports additional employment across transport, engineering, maintenance, environmental and professional service industries.
- 13.3.13 This is particularly important for mineral developments because a relatively small direct workforce can support a much larger network of downstream employment. The wider UK extractive industry supports substantial supply-chain activity and remains strategically important to construction and infrastructure delivery.
- 13.3.14 Within a predominantly rural economy such as Denbighshire, where productivity remains below national averages, these higher-value industrial jobs can make a disproportionate contribution to local economic output and business activity relative to their employment share.
- 13.3.15 *The Office for National Statistics: Employment Multipliers and Effects in the UK* (2023 Edition) data allows the relative importance of 133 industries to be interpreted. It can be understood that whilst not labour-intensive the industry has a substantial wider positive economic impact. As summarised in **Table 13-1 Multiplier Effects of the Quarrying Industry** 'Other mining and quarrying' (B08) has a distinctly important upstream supply-chain role with its multiplier effect higher than most industries. Mining Support Service Activities (B09) has a less impactful role in terms of employment but generates a greater volume of direct jobs than on-site quarry roles.

Table 13-1 Multiplier Effects of the Quarrying Industry

Industry Grouping	Multiplier	Multiplier Rank out of 133
All-industry median	1.707	N/A
All-industry mean	2.259	N/A
Mining group mean (B05–B09)	3.365	N/A
Other Mining and Quarrying (B08)	2.799	17 th highest
Mining Support Service Activities (B09)	2.055	36 th highest

Potential Adverse Impact on Economic Receptors

- 13.3.16 It is recognised that the Proposed Development has the potential to affect nearby receptors through site-related emissions, operational disturbance and temporary changes to the character and appearance of the local area.
- 13.3.17 No businesses would be displaced as a result of the Proposed Development.
- 13.3.18 While a number of businesses are located within the vicinity of the Site, many are reliant on visitors, passing trade or paying patrons. Such patrons would be attracted to the area for work and service provision.
- 13.3.19 The EIA process undertaken as part of the wider planning application has identified and assessed the likely environmental effects of the Proposed Development and informed the incorporation of appropriate mitigation measures. Consequently, although some localised impacts may arise, these are appropriately mitigated. Therefore, the overall socio-economic effects of the Proposed Development are expected to be positive. They are not considered likely to be significant from an EIA Regulations perspective.

Social Considerations

- 13.3.20 In addition to the direct and indirect economic benefits arising from the Proposed Development involving the resumption of quarrying operations, the extraction of industrial sand supports a wide range of essential industries and public infrastructure.
- 13.3.21 Minerals are fundamental to the construction and maintenance of homes, schools, hospitals, transport infrastructure and other community facilities, thereby contributing to wider social and economic wellbeing. Industrial sand is recognised by the British Geological Survey (BGS) as an essential raw material for UK manufacturing and other strategically important sectors.
- 13.3.22 Industrial sand is a key raw material in the manufacture of glass, glass fibre, ceramics and foundry products. In addition to Welsh markets, the North West of England hosts a significant concentration of specialist glass manufacturers that rely on a secure supply of high-quality industrial sand meeting stringent chemical and physical specifications. Maes y Droell could help to satisfy demand from these markets.
- 13.3.23 Industrial sand is also used in water filtration, food processing and a range of specialist industrial applications, including road-marking products and rail braking systems. Many of these sectors require sand with highly specific characteristics that can only be sourced from a limited number of quarries.
- 13.3.24 Beyond manufacturing, industrial sand is widely used in the sports and leisure sector, including for golf courses, equestrian surfaces, sports pitches, artificial turf and children's play areas. The BGS identifies leisure uses as one of the largest markets for industrial sand in the UK, reflecting its importance to community recreation and sporting infrastructure.

Cumulative Impacts

- 13.3.25 No cumulative socio-economic impact has been identified as a result of the Proposed Development.

13.4 Summary and Conclusions

- 13.4.1 The Proposed Development would bring Maes y Droell Quarry back into productive use and enable the extraction of a nationally important, high-grade industrial sand resource over an estimated 15–20-year period, with a maximum annual output of 300,000 tonnes of all products. Likely production would typically be lower. This would support the security of supply of a specialist mineral used in glass manufacture, foundry production, filtration, chemicals, construction products and a range of community, sporting and infrastructure applications.
- 13.4.2 The development would generate a beneficial direct economic effect through the creation of approximately 6–7 full-time equivalent jobs at full production, together with up to six long-term temporary roles during periods of full extraction. These skilled employment opportunities would be supported by wider indirect and induced benefits arising from expenditure on haulage, engineering, plant maintenance, environmental management, professional services and other local and regional supply-chain activities. Such benefits are important in Denbighshire, where the working-age population is proportionally lower than the Welsh and UK averages and productivity remains below national levels.
- 13.4.3 No existing businesses would be displaced. Although quarry operations have the potential to cause localised disturbance and environmental effects, these matters have been assessed through the wider EIA and appropriate mitigation has been incorporated into the Proposed Development. Accordingly, no significant adverse socio-economic effects are anticipated. No cumulative socio-economic effects have been identified.
- 13.4.4 Overall, the Proposed Development would have beneficial socio-economic effects through direct and supply-chain employment, expenditure in the local and regional economy, the retention of specialist skills and an increased supply of an essential industrial mineral. Restoration would subsequently provide a safe landscape with enhanced environmental and biodiversity value. After mitigation, no significant adverse or cumulative socio-economic effects have been identified; the overall beneficial socio-economic effect is not considered significant for the purposes of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (as amended).