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Introduction

3.1 This Environmental Impact Assessment Report (EIAR) provides supporting information to accompany a planning application in respect of a proposed development at an existing sand and gravel pit at Mounthall and Cummer townlands, Camross, Co. Laois.

3.2 The proposed development being applied for under this planning application will consist of:

- Continued use and extension to existing permitted sand and gravel pit registered under Section 261 of the Planning & Development Act 2000, as amended (site ref. QY05/10) within an overall application area of c. 12.2 hectares;
- Extraction of sand and gravel (dry working) over an area of c. 8 hectares with processing and washing of material on site (closed loop water recycling system with associated silt storage lagoons 1,952.25m^2), and all ancillary works and structures;
- Site facilities consisting of mobile processing plant, portacabin site office (6.25m²), portacabin welfare facility (18.9m²), serviced portaloo toilet, bunded fuel storage and refuelling pad with hydrocarbon interceptor, weighbridge, wheelwash, water supply borehole, perimeter berms, vegetation planting and fencing;
- Access to the site will be via the existing sand & gravel pit entrance;
- Restoration of the site to agricultural lands; and
- The proposed extraction operational period is for 10 years plus 1 year to complete restoration (total duration sought 11 years).

3.3 In the consideration of alternatives below, the need for the development, the do-nothing alternative and the issues of alternative sources of aggregates and alternative site locations have been addressed.

Need for the Development

3.4 Project Ireland 2040 was published in February 2018 and is the overarching policy and planning framework for the social, economic and cultural development of the country for the next 20 years and further. It includes the National Development Plan: a ten-year strategy for public capital investment to 2027 and the 20-year National Planning Framework.

3.5 The National Planning Framework 2018 is the high-level strategic plan for influencing future growth and development up to the year 2040. The framework is intended to guide public and private investment, to protect and enhance the environment and create and promote opportunities.

3.6 The National Planning Framework states that:

"Extractive industries are important for the supply of aggregates and construction materials and minerals to a variety of sectors, for both domestic requirements and for export. The planning process will play a key role in realising the potential of the extractive industries sector by identifying and protecting important reserves of aggregates and minerals from development that might prejudice their utilisation. Aggregates and minerals extraction will continue to be enabled where this is compatible with the protection of the environment in terms of air and water quality, natural and cultural heritage, the quality of life of residents in the vicinity, and provides for appropriate site rehabilitation".

3.7 The extractive industries are considered important not just as a source of supply to a variety of sectors both domestic and for export, but extractive industries supply aggregates that are

an essential requirement for Irelands future. Project 2040 will not happen without a secure supply of aggregates.

3.8 The recovery in output in the Irish construction industry since 2013 has led to increased demand for construction aggregates and it is anticipated that demand will increase further in coming years following the pressure to increase residential housing output and the planned spend of almost €116 billion between the State and State-owned commercial companies under the National Development Plan and Project Ireland 2040 in the ten years from 2018 to 2027.

3.9 It is estimated that each new residential house typically requires 300-400 tonnes of aggregate. Every new school typically requires some 3,000 tonnes of aggregates and every 1km of roadway requires up to 30,000 tonnes of aggregates. On average each person within the EU consumes 6 tonnes of aggregate per year, however the current demand for aggregates in Ireland is twice that figure, at 12 tonnes per capita per year.

3.10 Based upon an average consumption rate of c. 350 tonnes of aggregates for every new house, the proposed extension development at Mounthall is equivalent to supplying enough building aggregates to construct nearly 2,300 houses.

Essential Aggregates: Providing for Ireland's needs to 2040

3.11 It is estimated that Ireland will need to produce an estimated 1.5 billion tonnes of aggregates to meet housing and infrastructure targets set down under the Government's Project Ireland 2040 plan, according to the Irish Concrete Federation[1] (ICF) in a major publication issued by them in October 2019.

3.12 "*Essential Aggregates: Providing for Ireland's needs to 2040*" is an industry led call for Government to ensure that Ireland's future supply of aggregates (crushed rock, sand and gravel) is planned, monitored and managed in a sustainable manner, to provide for Ireland's future infrastructure development.

3.13 The report identifies that demand for aggregates in Ireland at 12 tonnes per capita is twice the current EU average, due to Ireland's infrastructural deficit, dispersed pattern of settlement and resulting large road network. The Federation warns that scarcities of some aggregates are now emerging in the Eastern and Midland regions, due to natural shortages, a lack of forward planning and delays and other shortcomings in the planning process. The report also highlights that:

"Ireland has abundant natural reserves of high-quality aggregates, but their future accessibility must be planned for and protected by Government. A lack of future planning and priority in the planning process and delays in achieving prospective quarry planning permissions will result in future shortages in the supply of some types of construction aggregates in certain areas of the country. The future supply of aggregates needs to be prioritised and addressed in a planned manner if we are to reach the ambitious construction targets as laid out in Project Ireland 2040".

Laois County Development Plan 2021-2027

3.14 The Laois County Development Plan (LCDP) 2021-2027 is the statutory plan detailing the development objectives/policies of the authority, covering the application area. The plan was adopted on 25th January 2022 and came into effect on 8th March 2022. The aim of the plan relates to the promotion of socially sustainable communities, sustainable economic

[1] Breedon is a member of the ICF

development and heritage, sustainable resource management and the protection of both urban and rural areas.

3.15 In Section 9.5 of the LCDP (Mining and Aggregates) the Council acknowledges the need for extractive industries in terms of the supply of aggregates for the construction sector, delivering transport infrastructure and other projects locally, as well as for the export market. The LCDP acknowledges the potential for conflict in the operation of these industries with wider environmental issues needs careful consideration. By their nature, aggregates can only be worked where they occur, and the cost of haulage affects economic competitiveness in this sector. Section 9.5 of the LCDP states:

"The Council recognises that the aggregate and concrete products industry contribute to the development of the national, regional and local economies by the proper use and management of natural resources for the benefit of the community and the creation of employment opportunities. These products are required as essential building materials in the social and economic development process including the provision of housing and infrastructure. Laois County Council will seek to safeguard these valuable resources for future extraction.

The National Guidelines on Quarries and Ancillary Activities for Planning Authorities (DOEHLG, 2004) is the guiding document against which applications for quarries and ancillary activities will be considered.

Aggregate extraction can only take place where suitable aggregate resources exist; they are a 'tied' resource. It is considered, therefore, that planning policies should be carefully constructed to avoid adverse effects on aggregate resources and the related extractive industries and added value production that are essential for the built environment, infrastructure and future economic development.

Like many forms of development, extractive industries have the potential to cause harm to the environment, heritage and the landscape if not appropriately designed and managed. However, aggregates are a necessary resource and are of great importance to the economy and society. In addition, well managed and designed quarry sites minimise environmental effects. There is also the potential for habitat creation through the restoration of quarry sites following the cessation of operations.

The following National Guidelines (as may be superseded and/or updated) should be complied with:

- *Environmental Management (EPA 2006);*
- *Quarries and Ancillary Activities: (DOECLG Guidelines 2004);*
- *Environmental Code (ICF 2006);*
- *Geological Heritage Guidelines (ICF & GSI 2008);*
- *Archaeological Code of Practice (ICF & DOECLG 2009);*
- *Sections 261 & 261A Planning and Development Acts 2000 – 2013.*

Construction Aggregates

3.16 Natural rock, sands and gravels (called aggregate in the extraction industry) are important, valuable and highly prized resources in the construction materials sector. The aggregates have a use in almost all residential, commercial, retail and industrial building, including the manufacture of ready-mixed concrete, mortar, blocks, pipes, pre-cast floors, slabs, walls and tanks, construction of road foundations, production of road surfacing materials (asphalt), use as rail bedding, backfill to structures and trench support for water supply / wastewater pipes, use for surface water and land drainage etc.

3.17 The supply of high-quality aggregates has presented problems for the Irish construction sector in the past and continues to do, principally as a consequence of;

- the relative shortage of such permitted resources nationally;
- their distance from key markets;
- their occurrence in environmental sensitive areas; and
- deficiencies in connecting road transport infrastructure.

3.18 The construction end-use ultimately determines specific requirements for the grade and quality of the aggregates to be used in construction. The sand and gravel which occurs at the site is of a quality that is suitable for multiple uses including concrete, mortar, and asphalt production. The continued and ever-increasing regulation of the construction industry and construction materials sector is also driving the requirement and demand for high-grade construction materials.

3.19 The current planning application is principally for the continued use and extension of the existing sand and gravel pit, provision of mobile processing plant and ancillary welfare facilities on site, with ultimate restoration of the site to an agricultural use.

3.20 The existing site is located in an area favourable to extraction activities, due to, *inter alia:*

- previous history of sand and gravel extraction at this site and in the general geographic location;
- application site is a proven source of high-quality sand and gravels;
- ongoing and continued increases in the level of construction and development activity in the midlands and eastern regions is generating ever increasing demand for construction materials;
- within an appropriate topographic setting i.e. well screened from surrounding areas;
- remote location, but with access to the regional and national roads network and a low annual extraction rate will minimise HGV traffic movements on the local road network;
- best practice industry standard extraction methods can be used; and
- the proposed development will be carried out by a long established and experienced operator in the extractive and ancillary concrete / asphalt manufacturing industry with a proven track record in planning and environmental compliance within their overall pit/quarry portfolio.

Do Nothing Alternative

3.21 If the proposed development does not take place, the existing pit would remain as is and the extension lands would remain in use for agricultural purposes, and there would be a loss of a proven and valuable aggregate supply to the region going forward.

Alternative Sources of Aggregates

3.22 In the medium term there are no real alternatives to the current land-based sources of construction aggregates.

3.23 Until such time as end of waste criteria in respect of construction & demolition (C&D) materials is formally implemented, these materials cannot be relied upon and for the foreseeable future there are no real alternatives to primary naturally won aggregates.

3.24 Notwithstanding the above, the volume of C&D waste suitable for recycling into secondary aggregates would be considered very low in comparison to the overall demand for aggregates. The demographic spread of the population results in only the large urban centres potentially being capable of generating sufficient volumes of construction and demolition (C&D) waste to justify a commercial operation producing secondary aggregates going forward.

3.25 In the longer term (>25 years), there may be some scope for extraction of minerals from marine sources.

3.26 In the absence of significant volumes of aggregates from recycled / secondary and marine sources, it is clear that land-based deposits (such as the proven reserves at Mounthall) will continue to be the main source of construction aggregates in Ireland, including Laois and the wider midlands and eastern regions.

Alternative Locations

3.27 This development is not comparable to a factory or other commercial enterprise that can be located at many potential locations. It is a resource-based development and therefore the aggregates can only be worked (extracted) where they are present in-situ, as acknowledged in Section 9.5 of the LCDP 2021-2027.

3.28 It is further recognised within paragraph 4.13 of the *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* prepared by the Department of Housing, Planning and Local Government in August 2018:

"For example, some projects may be site specific so the consideration of alternative sites may not be relevant."[2]

3.29 Aggregates can only be worked where they exist and where the environmental effects of working them can be minimised. However, this is not the only prerequisite which determines a suitable location for an aggregates site. Others include a willing vendor, distance from market, required quality and quantity to justify capital investments, etc. It is usually the case that a number of these prerequisites are not met, and the alternative is discounted.

3.30 The provision of aggregates is essential to meet the needs of society. As reserves of sand and gravel and rock are finite resources and eventually become exhausted at their location, it is therefore necessary for quarry operators to continually seek out new greenfield sites in tandem with maximising or extending extraction at existing established sites. Both options are essential and required to replace existing supplies that are being worked out and to provide a security of supply of aggregates and building materials to the construction sector.

3.31 At the current time, there is no suitable alternative replacement sand and gravel location available to the applicant.

3.32 The existing site at Mounthall is an established pit in a remote location and has a local road network providing access to and from it that has proven to be suitable for this type of development previously.

3.33 Notwithstanding the continual search for suitable development sites, the lands at Mounthall are proven to contain an economically viable volume of quality sand and gravel reserves. The site is deemed appropriate for the following reasons:

- suitability of the economic sand and gravel reserve;

[2] Guidelines for Planning Authorities and An Bord Pleanála on carrying out EIA, August 2018

- extent of the lands over which the applicant has an interest in, and which are available for development;
- access and road infrastructure with proximity to the national road network and key transport corridors, namely the M7 motorway and R440 regional road;
- low environmental impact: topography assists with screening of the development (no significant visual intrusion), no recorded monuments within the application or landholding area; and not within a designated ecological or landscape area (albeit, adjacent to the Slieve Bloom SPA);
- detailed water and ecology studies indicate the development can proceed without impacts on the surrounding hydrogeological and ecological regimes.

3.34 On the basis of the above, it is considered that the proposed continued use and extension development of the existing pit, subject to implementation of best environmental management practice and compliance with appropriate planning controls (i.e. planning conditions and standard emission limit values for the sector) can be carried out without any significant environmental impacts on the surrounding area.

Environmental Designations

3.35 The application site is adjacent to the Slieve Bloom SPA, which is host to the qualifying interest of hen harrier SPA. This species is known to be ground-nesting species, and most likely to be found in moorland habitats. Given the long standing grazing nature of the site, having been used for grazing cattle and comprising mostly short sward grassland, it is not considered as a potential nesting site for hen harrier.

3.36 An extensive ecological assessment has been undertaken to determine the potential use of the site for foraging and for potential pathways for contamination / disturbance to the SPA and other ecologically designated sites. The Appropriate Assessment / Natura Impact Assessment and information submitted in Chapters 5, 8 and 10 of this EIAR contain information on the measures that have been taken to ensure that no development proposed will cause detrimental impacts to the ecological sensitivities surrounding the application site.

Alternative Designs / Layouts

3.37 Alternative designs, including alternative layouts within the site were considered with particular attention being paid to the location of the processing plant and ancillary facilities in general being located away from the public road and nearest residences where possible, along with the direction of working within the extension area.

3.38 The design layout that was chosen for the proposed extension area is considered to best minimise the potential impacts on the environment from noise, dust, visual and landscape impacts, through the phased design proposed.

3.39 All of the site ancillary facilities, and product stockpiles will be located on the pit floor, screened by the existing pit faces and set back from the public roads and therefore will be mostly screened from view due to the topography of the area. Similarly, the processing plant will be located on the pit floor within the proposed extension area, located centrally within the site and where the pit faces and proposed screening mounds and vegetation will be used to mostly screen the plant, as is evident in cross sections provided in EIAR Chapter 2, **Figure 2-4**.

Residence Consideration

3.40 Perimeter screening berms will be constructed using soils stripped from the Phase 1 extraction area. The screening berms will be c. 2m in height and will be located along the

northern boundary of Phase 3 adjacent to residence R1, and along the eastern boundary of Phase 2 adjacent to residences R2/R3.

3.41 Provision of acoustic fencing adjacent to residences R1 to the north and R2/R3 to the east. The acoustic timber fencing will be c. 2-3m in height and will be constructed with high quality boards in such a way that eliminates gaps that sound can easily travel through.

3.42 Vegetation planting with native species will be carried out around the periphery of the application area. The planting will be carried out in Year 1 to allow the maximum time for the vegetation to become established. The vegetation will be retained indefinitely following the completion of sand and gravel extraction operations at the site.

3.43 Additionally, no extraction operations are planned for Sundays or Public Holidays.

Landscape & Visual Consideration

3.44 It is proposed to extract the sand and gravel in 3 phases as shown on EIAR **Figure 2-2** and where extraction operations will progress in an anti-clockwise direction from Phase 1 to Phase 3.

3.45 To minimise the visual impact and help mitigate any potential impacts from noise and dust emissions it was decided to progress the extraction to ensure that the deposit itself could provide maximum protection to outside views and adjoining land uses from the working area. As can be seen in **Figure 2-2** the centre of the development area is proposed to be worked first during Phase 1. Extraction thereafter will radiate out in an anti-clockwise direction from here which will have the benefit of leaving the external portions of the extraction areas to provide natural screening. Commencing the sand and gravel extraction operations in the southeast area (Phase 1) will allow for the perimeter acoustic fencing, screening berms and vegetation to be established at the earliest opportunity along the northern and eastern boundaries closest to the residences R1 and R3.

Ecological Consideration

3.46 All existing mature external boundary hedgerows will be retained through the proposed development. The dense woodland external boundary lines will also be retained.

3.47 All proposed vegetation planting as shown on EIAR **Figure 2-5** will be permanent and will be carried out within the first year. The planting will be with native species and carried out at the earliest opportunity to allow for the vegetation to become well established prior to extraction operations in the vicinity of the nearest residences, and the requirement to remove existing vegetation within the extraction areas during Phases 2 and 3.

3.48 The proposed design is to work the pit in a gradual manner so that it will lead only to a gradual land take at any one time over the life of the development, instead of immediate overburden stripping and extraction over the full extraction footprint. This gradual land take will help to ensure that a dramatic sudden impact on the fauna of the area does not occur, instead allowing them to adapt to the workings and relocate to adjoining lands.

3.49 The need for removal of habitats has been minimised as far as possible. Ecological surveys and assessment during the course of the EIA process has influenced the final layout of the proposals. Of most significance, the ecological assessment has resulted in the retention of several mature beech trees along the northern and southern boundary of Phase 2 due to their bat roost potential.

Alternative Processes

3.50 Breedon Ireland are a company with expertise and experience in the field of quarrying, aggregates production and the manufacture of value-added products.

3.51 As the proposed development comprises the continued use and extension of an existing pit with standard extraction and processing methods to be implemented, alternative processes are not considered relevant in this instance.