Waste Planning Assessment – Denbigh Quarry, Denbigh

Compliance with 'Towards Zero Waste'

There are two stages in the policy which relate to the years of 2025 and 2050. 2025 is seen as "an intermediate step on the way towards 'zero waste'" at which point there will be maximum recycling, minimising the amount of residual waste and landfilling as close to zero as possible. By 2050 the aim includes full recycling or reuse such that there is no landfilling of any waste. The current proposals seek to meet/support the 2025 target and are anticipated to be complete before the 2050 date so are not in conflict with this aim.

The use of the inert waste as infill to bring part of the land back up to original ground levels in the north of the existing quarry is more accurately described a 'recovery' because, without the availability of this material the restoration would have to be low-level, consisting of several benches which would make the restoration to woodland both challenging and non-viable.

The waste hierarchy, first set out in the European Waste Framework Directive, was transposed into Welsh legislation and guidance by Technical Advice Note 21. Whilst landfill is the least sustainable option, the use of inert material for the restoration of mineral sites is classified as recovery. Whilst this is not the most sustainable option the producer will seek to minimise the production of waste at source and then reuse or recycle those materials where possible. The fraction of the waste that is imported will be those that are residual from these processes and is not, therefore, capable of beneficial use other than recovery.

Need and location

Denbigh Quarry is an active limestone quarry, north of the town of Denbigh in Denbighshire. See Figure M18.155.D.001 appended to the Planning Supporting Statement.

The existing site comprises 28.3 hectares and is located within the administrative area of Denbigh Town Council. The need for the mineral extraction is explored in the main Planning Supporting Statement accompanying the application in the context of the Regional Technical Statement (2nd Review).

The need for the importation of inert waste is in two parts, firstly to aid the restoration of the site by raising levels in part of the quarry back to original ground levels , allowing continuity between areas of woodland and, secondly, as a means of managing waste arisings from the catchment area.

That catchment area is informed by the Denbighshire Local Plan 2006 -21 and is influenced by the emerging Replacement Local Development Plan 2018 – 33. Policy VOE7 identifies the application site as an allocated site for waste management for the local area. This allocation, whilst not guaranteeing the grant of planning permission adds weight to the acceptability of the proposed use.

Site Description and Context

This is a consolidating application that covers the operations in both the existing quarry and the extension area. The permitted site comprises approximately 28 hectares of land and the proposed extension area is approximately 5ha in extent. To the north, west and south the contiguous land is

rural, predominantly agricultural fields and woodland comprising pasture and a mix of ancient and more recent woodland. Craig Mawr Wood to the north of the proposed extension site is a Site of Special Scientific Interest (SSSI) and another SSSI (Graig Quarry) is situated 150m to the southeast of the proposed extension area. Part of the woodland within the consented site, outside the extraction area and to the south of the existing site, is the subject of a Tree Preservation Order

Further to the south, at a distance of approximately 250m from the southern boundary of the application site is the northern boundary of the town of Denbigh. The eastern boundary of the proposed extension is the existing quarry which is, itself, bounded on the east by Graig Road, with the Colomendy Industrial Estate further to the east.

The existing quarry is accessed off Graig Road via a purpose-built access road that is owned by the applicant Company and all access to the extension area would be via the existing site. Use of this access is exclusive to Breedon Southern Limited and dedicated to its operations at Denbigh quarry.

The proposed extension area consists of agricultural fields in use for pasture, to the west of the existing working area but also within the administrative area of Denbigh Town Council and to the south of the Crest Mawr woodland. The surrounding area comprises pasture and arable fields.

The existing quarry operations have been established in the local landscape over the last 70 years. The closest residential dwellings to the proposed extension are located at the northern end of Bryn Seion approximately 250 to the south of the application boundary. The amenity of these and other local properties would be safeguarded through mitigation measures including standoff areas and the use of temporary landscape screening landforms within the application boundary ie more than 250m from the edge of these properties.

There is one public footpath within the application site boundary (footpath ref: 508/6) which helps to connect Denbigh to the northern rural area. At the point where footpath 508/6 departs the development envelope of Denbigh another footpath (508/5) departs in a northwesterly direction passing within 50m of the proposed extension. Footpath 508/6 is on the boundary between the existing quarry and the proposed extension running north to south.

Development proposals

The combined existing and extension areas will release approximately 5.0 million tonnes of saleable mineral giving an overall life of mineral extraction of 25 years. To allow for market fluctuations and the completion of restoration an end date of 31st December 2048 is requested.

The predicted/proposed phasing of the extraction, from both the existing quarry and progressing through the extension, is shown on Drawings M18.155.D.024 to 027 and 040. Minor amendments may be required, from time to time, under other regulatory processes to take account of geological changes. However, the general sequence and location of phases will follow the phases as shown on the drawings.

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, saleable product is loaded onto road-going HGV transport which then proceed to the public highway via the weighbridge adjacent to the site office.

The first operation in the extension area will be to install the footpath diversion along the approved route. Pre-commencement screen planting, in the first available planting season following the grant

of planning permission, would take place along the southern application boundary to allow for a period of maturation before soils are disturbed.

Subsequently, the soils would be stripped from the whole extension area and used for one of three purposes – peripheral screening mounds, immediate placement to complete restoration phases or storage within the base of the quarry for use in later restoration. All soils would be handled when they are dry and friable in accordance with the MAFF Good Practice Guide for Handling Soils (April 2000). The external toe of the screening/attenuation bunds has been moved from the position as described in the Scoping Report to a distance of 30m from the boundary of the Crest Mawr SSSI.

The peripheral bund, as shown on Drawing Ref. M18.155.D.024 will be grass seeded in the first available season following the formation of the bunds. Screen planting will also be carried out in order to break up the straighter lines of the bunds. Surplus overburden will be directly placed in the next restoration phase in the main quarry.

Restoration

The proposed extension occupies agricultural land to the west of the existing Denbigh Quarry operations, currently used for pasture. The proposed restoration for the extension area would adopt the principles expressed in the scheme as shown on drawing M18.155.D.007. Those are;

- Creation of a Priority Habitat (Calcareous Grassland) along the quarry floor with a gentle slope to allow for natural drainage;

- Creation of a large waterbody which reflects the naturally fluctuating groundwater level;

- Natural regeneration of trees and shrubs assisted by the addition of soil forming materials on quarry benches.

- Lower cliffs, benches and predicted waters' edge blasted in selected areas to form areas of scree at the base of the quarry and variation in substrate/shallows depths.

- Retention of a water attenuation feature near the existing entrance that functions in the same way as the current water attenuation lagoon but is shaped and landscaped in a more sympathetic manner than the current 'industrial' feature.

- The importation of up to 100,000 tonnes of inert waste to achieve graded restoration in the northern end of the site from 2022.

<u>Timescale</u>

The period of time for which the site is likely to be operational is dependent on the quarry output and the output is, unsurprisingly, dependent upon demand. The demand fluctuates and using historic output, over an extended period, is the only realistic means of predicting future demand. It is prudent to add a small amount of contingency but unforeseen market forces and Governmental decisions on infrastructure can lengthen or shorten lifespans.

It is intended that inert restoration material be imported to the site only during the period of extraction and restoration of limestone from the area covered by this consolidating application. Therefore, the importation of waste would cease within 18 months of the cessation of extraction. The exact date is difficult to predict as the extraction process is at the mercy of economic fluctuations, but the anticipated end date is 31st December 2047.

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 existing consented mineral.

The phasing of extraction and, particularly, the depth of extraction are limiting factors on the availability of tipping space but the applicant is aware of the MTAN1 requirement (para 101) that restoration should keep pace with development on the understanding that minimum practicable operational areas are maintained.

Waste acceptance would take place only within the permitted operating hours of the quarry. This application is seeking replication of those hours of operation set out in planning condition 30 of planning permission 01/2009/1424 dated 15 March 2010;

Operation	Mon to Fri	Saturday	Sunday/Public Holiday
Emergencies, essential maintenance, pumping	24 hr	24 hr	24 hr
Mineral extraction and processing	0600 to 1800	0600 to 1200	Nil
Agricultural lime processing	0600 to 2200	0600 to 1600	0900 to 1700*
Agricultural lime loading	0600 to 1800	0600 to 1200	Nil

*Not public holidays

Types and quantities of waste to be managed

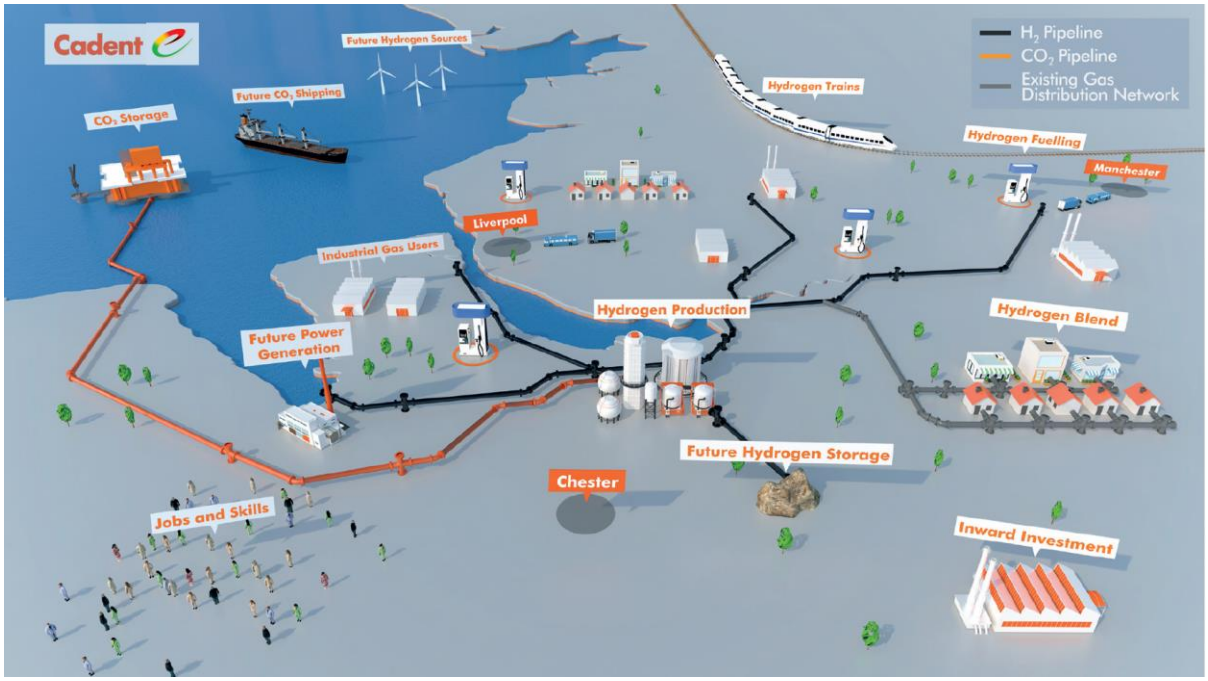
The waste to be imported will be inert waste derived from Construction, Demolition and Excavation (CDE) operations. The anticipated quantity is 100,000 tonnes per annum with an average density of 1.5 tonnes per cubic metre.

The applicant operates the Maes Mynan quarry with the benefit of planning permission and an Environmental Permit for the importation of inert (Construction, Demolition and Excavation, CDE) waste. Upon completion of waste acceptance at that site, which is anticipated to occur before the end of 2021, the applicant will seek a new Environmental Permit to allow the importation of the same types of waste to this application site.

The rate of importation will vary through the extraction phases, as shown on the submitted drawings accompanying the application. During Phases 2and 3 the rate of importation would be approximately 50,000 tpa. This figure increases to 100,000 tpa during Phases 4 and 5.

The proposed restoration profile requires the overall importation of 1.5 million cubic metres of inert waste.

Potential sources of material include the project for the redevelopment of the North Wales hospital site and part of the HyNet North West pipeline and hydrogen project which is centred to the north of Chester.



Source: Progressive Energy Ltd: Phase 1 report for BEIS v2, undated

The operational areas of the Hy-Net proposal are close enough to provide restoration materials but are at a distance where there will be no environmental in-combination or cumulative effects other than transport which has been considered in the EIA process. Residential development at Old Ruthin Road may also provide some overburden.

Design, layout, buildings and plant

TAN21 is not specific towards the type of operation that is proposed and there will be no additional buildings required for the waste management operation. The placement will be undertaken by the existing plant on site and the compaction will involve the occasional use of a vibrating roller.

Air Pollution

The planning application is accompanied by an assessment of the air quality impacts of the development making reference to the permitted levels of export of mineral. The journeys associated with the expected levels of export and import remain significantly below the permitted level so an assessment of air quality in terms of vehicular traffic has been scoped out in accordance with the agreed methodology.

The waste will not be processed so there is limited opportunity for the deposition and handling to create air quality emissions. The nearest residential properties are more than 250m from the point of deposition so a disamenity dust assessment is not required.

Proposed restoration and aftercare

The restoration is described above and it is anticipated that any planning permission issued would be subject to a planning condition requiring a five year period of aftercare. The restoration of the site that is facilitated by the import of inert waste will be undertaken progressively such that when an area of sufficient size become available the restoration will be undertaken in that area rather than waiting until the whole profile is completed. The changes in levels and phasing of the restoration are shown on the phasing drawings accompanying the planning application.

The restoration profile is influenced by the quantity of imported material with no intention to continue exporting beyond the extraction period. However, the space that is needed in the base of the quarry to continue safe operations, determines the quantity that can be imported. At the completion of quarrying the stored imported material will be placed in the approved landform, over the former working area and soils applied from store.

Declaration

This statement sets out how the waste hierarchy has been considered in developing the proposals currently forming this planning application.

Signed: …….

Date: …….