

PROPOSED EXTENSION TO CAER GLAW QUARRY, GWALCHMAI

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

February 2023

Prepared by:

House Associates

Hill Farm, Mill Lane

Moston

Sandbach

Cheshire CW11 3PS

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APPENDICES

CAE'R GLAW QUARRY LANDSCAPE AND VISUAL IMPACT ASSESSMENT

1. INTRODUCTION

- 1.1 This Landscape and Visual Impact Assessment (LVIA) has been prepared by House Associates on behalf of the Hogan Group and Cae'r Glaw Ltd in support of a planning application to extend the existing operational quarry to the north east.
- 1.2 A Screening Opinion was sought from Anglesey Council on 2nd June 2021 in pursuance of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. The Council subsequently advised that an Environmental Impact Assessment was not required.
- 1.3 The Council's Landscape Officer provided comments as part of the Council's Pre-Application advice (attached in Appendix 1 of this report) and in a subsequent telephone conversation and these have been taken into account in the preparation of this LVIA. The findings of this LVIA have been instrumental in the design of the quarry extension and its restoration proposals.
- 1.4 The main objectives of the LVIA are as follows:
 - To identify and assess the likely significance of the effects of change on the landscape as an environmental resource in its own right resulting from quarrying (landscape character impact); and
 - To identify and assess the likely significance of the effects on people's views and visual amenity resulting from the proposed development (visual impact).
- 1.5 The LVIA refers to the method of working, phasing and restoration all of which are set out in the Planning Supporting Statement.
- 1.6 This LVIA has been prepared by Christine House, Chartered Member of the Landscape Institute and has been undertaken in accordance with the best practice as set out in Guidelines for Landscape and Visual Impact Assessments (3rd Edition 2013). Field and photographic surveys were undertaken in July 2021.

2. APPROACH AND METHODOLOGY

- 2.1. The methodology for this LVIA follows the recommendations and guidance set out in the following documents:
- Guidelines for Landscape and Visual Impact Assessment¹
 - Photography and Photomontage in Landscape and Visual Impact Assessment²
- 2.2 The LVIA process has been carried out utilising a detailed desk study to identify the potential areas from which the proposed mineral extraction would be visible. This involved an analysis of Ordnance Survey information at a scale of 1:25,000. This helped to define the area that might be influenced by the proposed mineral extraction, hereinafter to be called the “Study Area” for the purposes of this LVIA.
- 2.3 In addition to this desk-based assessment, Zones of Theoretical Visibility (ZTVs) have been prepared without screening, taking into account existing buildings and woodlands. These have been used to identify potential areas of visibility from roads, properties, public rights of way, heritage assets and open access land.
- 2.4 The Landscape Character Area of relevance to the site was also identified. The description of this Area was verified during the site survey.
- 2.5 Prior to the site survey being carried out, a telephone discussion was held with the Landscape Officer from Anglesey Council to agree the initial viewpoints. As a result of this discussion, an additional viewpoint to the north of the site was added.
- 2.6 The site survey was undertaken on 21st July 2021. The information gathered from the desk study was used and verified on site. A representative series of panoramic photographs were taken from public viewpoints illustrating views towards the site (Photoviews 1-7 Appendix 2).
- 2.7 Each Photoview has been produced to show a 90° angle of view. The images are intended to represent a view towards the proposed area of mineral extraction and have been used as a basis for both the landscape and visual impacts. Each photoview is accompanied by a tale and location plan. The table describes the location and details of the viewpoint, the existing components of the view within the photograph and the anticipated components of the view that would occur during mineral extraction and following restoration. This has been assessed using the methodology and guidance set out in Section 3 below.

¹ Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute and Institute of Environmental Management and Assessment (2013)

² Photography and Photomontage in Landscape and Visual Impact Assessment; (Landscape Institute Advice Note 01/11)

3. GUIDANCE

Guidelines for Landscape and Visual Assessment (2013) – GLVIA 3

3.1 GLVIA 3 states that when undertaking a LVIA, this should consider:

- Landscape effects (i.e. the effects on the landscape as a resource); and
- Visual effects (i.e. effects on views and visual amenity).

3.2 It also states that: *“LVIA must deal with both and should be clear about the difference between them”*.³

3.3 The guidelines explain that both landscape and visual effects are dependent upon the sensitivity of the landscape resource or visual receptors and the magnitude of impact.

Landscape Sensitivity

3.4 The sensitivity of the landscape resource is defined by the 2013 Guidelines as follows:

*“Landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape...”*⁴

3.5 In respect of Susceptibility to Change, GLVIA 3 states that:

“this means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic or perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.

...Since landscape effects in LVIA are particular to both the specific landscape in question and the specific nature of the proposed development, the assessment of susceptibility must be tailored to the project. It should not be

³ GLVIA 3 para 2.22 page 21

⁴ GLVIA 3 para 5.39, page 88

recorded as part of the landscape baseline but should be considered as part of the assessment of effects.”⁵

3.6 GLVIA 3 comments on the value of the landscape receptor as follows:

- *“The value of the Landscape Character Types or Areas that may be affected based on the review of any descriptions... where there are no designations judgement based in criteria that can be used to establish landscape value;*
- *The value of individual contributors to landscape character, especially the key characteristics...”⁶*

Magnitude of landscape effects

3.7 The methodology used for the quantification of the magnitude of landscape effects is based on the :

- Size and scale of the change to the landscape resource;
- The geographical extent of the area influenced (the Study Area); and
- Its duration and reversibility.

Size and Scale

3.8 Impacts on existing landscape elements contributing to landscape character are relatively easy to assess, e.g. number of mature trees and length of hedgerow lost as a result of the development compared with the extent of replacement planting. However, aesthetic or perceptual aspects of the landscape can be altered by the removal/addition of these landscape elements to the extent that this can affect the key characteristic of landscape character e.g. removal of hedgerows changing a small-scale landscape into an open landscape dominated by a large field system.

Duration and Reversibility

3.9 Duration is judged in terms of short, medium or long term. For the purposes of this assessment, the proposed mineral extraction is considered to have a long-term impact on the landscape.

⁵ GLVIA 3 para 5.40 and 5.42, page 88 and 89

⁶ GLVIA 3 para 5.44 page 89

3.10 The following provides examples of the approach taken in this assessment when determining the magnitude of landscape change within the defined Study Area. These effects may be permanent or reversible (short, medium or long term):

- High – major alteration to key elements/characteristics of the baseline and/or introduction of uncharacteristic elements to the landscape
- Medium – alterations to key elements/characteristics of the baseline and/or introduction of elements that may be prominent but significantly uncharacteristic of the landscape
- Low- minor alterations to key elements/characteristics of the baseline and/or introduction of elements that may not be characteristic of the landscape
- Negligible – very minor alteration to key elements/characteristics of the baseline and/or minimal change resulting from introduction of elements that is not uncharacteristic of the landscape

Level of Landscape Effects

3.11 A consideration of the sensitivity of the landscape receptors to the proposed development and the magnitude of the change resulting from the proposed development, determines the level of effect of the predicted impact.

3.12 Within this assessment, thresholds of landscape effects are determined from the different combinations of sensitivity and magnitude to which different combinations of sensitivity and magnitude to which different emphasis may apply. The following provides examples of the approach taken in this assessment:

- Very substantial effect, where effects are both of high sensitivity and high magnitude
- Substantial effect which can be a product of high sensitivity or high magnitude
- Moderate effect where effects can be a result of medium sensitivity and magnitude or low sensitivity with high magnitude
- Slight significance where effects can be the result of low sensitivity or low magnitude coupled with low or medium sensitivity/magnitude
- Negligible effect where the impact of the development is minimal
- Nil/no effect

Visual Sensitivity

3.13 For visual impacts, the sensitivity of visual receptors is classified as follows:

High Sensitivity	e.g. users of outdoor recreational facilities or attractions including public rights of way, open access land or heritage assets (whose interest or attention is focused on landscape); communities where the development would result in changes in landscape setting or; occupiers of residential properties (ground floor views)
Medium Sensitivity	e.g. people travelling through or past the affected landscape by car, train or other means of transport; upper storey views from residential properties
Low Sensitivity	e.g. users of sporting and other recreational facilities (whose interest or attention is not focused on the landscape); people at their places of work

Magnitude of Visual Effective

3.14 The quantification of magnitude for visual impacts is classified as being of high, medium or low magnitude according to the following criteria:

- Size or scale of the visual change
- The geographical extent of a visual effect from a viewpoint; and
- Its duration and reversibility

3.15 This relates to size and scale:

- The scale of change in the view with respect to the loss or addition of features in the view and changes in its composition including the proportion of the view occupied by the proposed development; and
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics

3.16 This will be dependent upon geographical extent:

- The angle of view in relation to the main activity of the receptor;
- The distance of the viewpoint from the proposed development; and
- The extent of the area over which the changes would be visible

Duration and Reversibility

- 3.17 Duration is assessed in terms of short, medium or long-term. For the purposes of this assessment the proposed development is considered to have a medium term and semi/permanent effect on the view.
- 3.18 As an example of how the above contributes to magnitude of visual effect, a low magnitude of visual change may arise from a new feature which is not discordant with the surrounding view and is visible over a small area. By contrast a high magnitude of visual impact may be generated by a contrasting new feature visible over a larger area.

Level of Visual Effects

- 3.19 The sensitivity of visual receptors to the proposed development and the magnitude of the change resulting from the proposed development, determines the level of visual effect of the proposed development.
- 3.20 Within this assessment, thresholds of levels of visual effect are determined from different combinations of sensitivity and magnitude to which different emphasis may apply. However, the following provides examples of the approach taken in this assessment:
- Very substantial effect where impacts are of both high sensitivity and high magnitude;
 - Substantial level of effect which can be a product of high sensitivity or high magnitude;
 - Moderate effect where impacts can result from medium sensitivity and magnitude, or low sensitivity with high magnitude;
 - Slight effect where impacts can be the result of low sensitivity or low magnitude coupled with low or medium sensitivity/magnitude;
 - Negligible effect where the impact of the development is minimal; and
 - Nil/no effect

Presentation of Results

- 3.21 The result of the landscape assessment of the scheme is discussed below in Section 6 of this report.
- 3.22 Photo-views 1-7 (Appendix 2) determine the visual impact of the proposed development taking into account factors such as local topography, vegetation and existing development.
- 3.23. A table and a location plan accompany each Photo-view. The table describes the location of each vantage point, the existing view of the site and existing visual impacts compared with visual impacts generated by the proposed development during its operational life and following restoration.

4. PLANNING POLICY ANALYSIS

Anglesey and Gwynedd Joint Local Development Plan 2011 – 2026

- 4.1 On 31 July 2017 Gwynedd and Isle of Anglesey County Council adopted a Joint Local Development Plan. The LDP forms the development plan for Gwynedd and Anglesey Local Planning Authority areas and will be the basis for decisions on land use planning in this area (excluding the Snowdonia National Park).
- 4.2 **Policy PCYFF 4: Design and Landscaping** states that development proposals that fail to show (in a manner appropriate to the nature, scale and location of the proposed development) how landscaping has been considered from the outset as part of the design proposal will be refused.
- 4.3 The application is supported by this Landscape and Visual Impact Assessment which demonstrates that the visual impact of the proposed quarry extension will be negligible and that the revised landscape restoration scheme for the whole quarry will ensure that in the longer term the quarry will be integrated into the wider landscape.
- 4.4 **Strategic Policy PS 19: Conserving and Where Appropriate Enhancing the Natural Environment.** The LDP advises that key role of the planning system is to ensure the natural environment is protected effectively by managing the type, design and location of development. This section incorporates a range of policies including protecting and enhancing local landscape character, biodiversity and sites of regional or local significance.
- 4.5 The 30-year Local Environmental Management Plan for the site which is submitted with this planning application will ensure that the progressive restoration of the quarry will provide significant benefits in terms of landscape improvements and biodiversity gain. The proposed quarry extension will also have less adverse impact on biodiversity than the previously approved extension to the north west of the site which will be relinquished.
- 4.6 **Policy AMG 3: Protecting and Enhancing Features and Qualities that are Distinctive to the Local Landscape Character** states that proposals that would have significant adverse impact upon landscape character as defined by the Landscape Character Areas included within the current Landscape Strategy for the relevant authority, must demonstrate through a landscape assessment how landscape character has influenced the design, scale, nature and site selection of the development. The Landscape and Visual Impact Assessment

carried out for the proposed development concludes that the quarry extension will not impact the local landscape character.

- 4.7 **Policy AMG 5: Local Biodiversity Conservation** Proposals must protect and, where appropriate, enhance biodiversity that has been identified as being important to the local area by:
- a. Avoiding significant harmful impacts through the sensitive location of development.
 - b. Considering opportunities to create, improve and manage wildlife habitats and natural landscape including wildlife corridors, stepping-stones, trees, hedges, woodlands and watercourses.
- 4.8 The preliminary ecological appraisal carried out for the site highlighted potential issues to ecological receptors on or adjacent to site, specifically amphibians, badgers, breeding birds, reptiles and plant communities and protected habitats. In addition detailed studies have been carried out in respect of all potential species using the site and its immediate surroundings. These studies have found that no direct harm will be caused by the proposed quarry extension. The Ecological appraisal concludes that these issues can be addressed through compensation and mitigation measures detailed within the LEMP and EDS prepared for the site and the development may proceed without adversely impacting these ecological receptors.
- 4.9 **Policy MWYN 3: Mineral Developments** advises that extensions to existing operations will be granted to maintain the Plan area's landbank of aggregates, or to meet a demonstrated need for other minerals provided that certain criteria are met. This criterion is identified below:
1. There is no unacceptable harm to the amenity or health of local residents in terms of visual impact, levels of dust, noise, vibration, and light as a result of the operation itself or the resulting traffic movements;
 2. There is a suitable buffer between mineral development and sensitive development;
 3. There is no unacceptable harm to the stability and support of adjacent land;
 4. The development is sensitively screened and landscaped;

Comment: The quarry extension will be sensitively landscaped upon restoration and during its operational life only a small part of the proposed quarry extension will be visible from a public road.

5. The development will not have a significant adverse impact on sites of international, national, regional or local environmental, nature conservation, landscape and /or heritage importance;

Comment: The quarry extension will not have any adverse impacts on sites of environmental, nature conservation or heritage importance.

6. The proposal does not sterilize or otherwise prevent the working of other significant mineral deposits;

7. There is no unacceptable harm to land drainage groundwater and water resources;

Comment: The original quarry extension design would have involved the loss of a small area of mire to the north east of the site. However the quarry design has been modified to ensure that this is retained without compromising visual impact to the west of the quarry.

8. The proposal ensures that the potential use of the resource is maximised and there is satisfactory disposal of any waste arising from the mineral operation;

Comment: The potential use of the resource is maximised and all quarry waste will be utilised in the restoration of the site.

9. Where blasting is proposed, the proposal includes a scheme of blasting to demonstrate that it can be controlled to meet the conditions detailed in Mineral Technical Advice Note MTAN (Wales) 1: Aggregates, or any amendments;

Comment: blasting will continue to be carried out in accordance with conditions attached to the current planning consent for the operations.

10. The proposal includes a scheme for the after-use of the site and details of the restoration and aftercare required to achieve it in accordance with Policy MWYN 9;

Comment: the application provides for the sensitive and ecologically beneficial restoration of the site and its long- term management.

11. Wherever economically feasible, mineral waste or products should be transported by rail or water.

4.10 **Policy MWYN 9: Restoration and Aftercare** identifies the need to ensure appropriate restoration and aftercare of sites. Applications for mineral working will be refused unless a comprehensive scheme for restoration, aftercare and after use, including details of proposed funding where necessary is included. Schemes must show progressive working and restoration unless it can be demonstrated that this is not practical without sterilising permitted reserves. The scheme should address the following matters:

1. The existing use of the site;
2. Adjoining land uses;
3. The proposed after-use of the site;
4. The surrounding landscape character;
5. The proposed final landform;
6. The in-situ soil resource, its conservation during site working, and its use in the progressive restoration and after-use;
7. Timetable detailing the progressive restoration of the site to a high standard;
8. The potential for natural re-colonisation or for enhancing or providing wildlife habitats, agriculture, forestry, geo-conservation and amenity use;
9. The potential for community economic and recreational benefit; and
10. Other policies of the Plan.

Comment: The application contains full details of the restoration of the site for wildlife and a 30-year Landscape and Ecology Management Plan has been prepared and submitted with the application.

PLANNING POLICY WALES (EDITION 10, DECEMBER 2018)

4.11 The primary objective of Planning Policy Wales (PPW) is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation. A well- functioning planning system is fundamental for sustainable development and achieving sustainable places.

4.12 Section 2 of PPW sets out Key Planning Principles for achieving the right development in the right place and growing the economy in a sustainable manner. These principals are:

- Making best use of resources
- Facilitating accessible and healthy environments
- Creating & sustaining communities
- Maximising environmental protection and limiting environmental impact

4.13. PPW states that the role of the planning authority in relation to mineral extraction is to balance the fundamental requirement to ensure the adequate supply of minerals with the protection of amenity and the environment. Key principles to be followed include:

- protecting environmental and cultural characteristic of places, including those highly cherished for their intrinsic qualities, such as wildlife, landscapes, ancient woodlands and historic features, and protecting human health and safety and general well-being; and
- achieving, without compromise, a high standard of restoration and aftercare so as to avoid dereliction and to bring discernible benefits to communities, heritage and/or wildlife, including beneficial after uses or opportunities for enhancement of biodiversity and the historic environment.

Minerals Technical Advice Note (Wales) 1: Aggregates March 2004

4.14 The advice note highlights that the overarching objective in planning for aggregates provision is to ensure supply is managed in a sustainable way so that the best balance between environmental, economic and social considerations is struck, while making sure that the environmental and amenity impacts of any necessary extraction are kept to a level that avoids causing demonstrable harm to interests of acknowledged importance.

4.15 The methodology of the proposed mineral extraction from this site has been designed to minimise its visual impact in the locality and the restoration proposals are of a high quality which will be beneficial to biodiversity.

5. LANDSCAPE AND VISUAL BASELINE

The Site

- 5.1 The site is located immediately to the north of the A5 on the western periphery of the village of Gwalchami. The existing quarry is screened from view from the village by intervening high ground which rises to 85m AD adjacent to a communications/radio mast and associated compound.
- 5.2 To the north east of the site, there is predominantly open agricultural land, interspersed by a small number of farms and cottages. The land is predominantly gently undulating with rocky outcrops. Fields are divided by scrub and gorse hedgerows with a few isolated trees.
- 5.3 Immediately to the south of the operational quarry, there is a municipal waste recycling centre and a Concrete Batching Plant operated by Hanson. The south eastern area of the quarry supports a small lake surrounded by well-established vegetation cover.
- 5.4 To the west of the quarry, the land falls away from the 65mAOD ridgeline on the quarry's western boundary to 50m AOD at the unclassified road which runs northwards from the A5 to the B5112 to the east and the B5109 to the north. To the west lies the isolated farmstead Clegir Mawr and to the north west Bodfeillion.
- 5.5. The land to the north of the quarry is predominantly agricultural with gentle rolling topography interspersed with rocky outcrops and areas of wet marsh. The fields are typically small and defined by banks and hedgerows.

The Surrounding Area

- 5.6 The landscape surrounding the site is typical of the landscape character area identified as NLCA02 by Natural Resources Wales⁷. The quarry itself sits within a series of ridges running north east to south west. Typical of this landscape character type are areas of fen plateau. An example of this, Cors Bodwrog (SSSI), lies approximately 1.5 km to the east of the site.
- 5.7 The landscape is predominantly agricultural with rocky outcrops and is primarily used for grazing and rough grazing. This type of landscape dominates the land to the north, east and west of the site. To the south of the A5, field sizes are generally larger and supports a more intensive agricultural activity.

⁷ National Landscape Character, Natural Resources Wales, March 2014

5.8 The surrounding landscape is relatively free of industrial influences. The island’s main arterial route, the A55, lies approximately 1.5 km to the south of the site. The local urban form consists of small villages such as Gwalchmai and the Mona airfield which lies to 3.5km to the east of the site.

Description of the Proposed Development

5.9 The proposed development principally involves a north eastern extension to the existing Cae’r Glaw Quarry. The quarry extension will be worked in six phases as set out on Plans CG-10-17 to 22. The development provides for the progressive restoration of the existing benches within the main quarry void. The details of the progressive restoration are set out in the text below and in Plan No. **A 04-P1.**

5.10 The upper benches of the proposed extension will be restored progressively utilising soils stripped from each of the faces, thus ensuring that the soils are compatible with the existing quarry. It is the intention that these soils will be allowed to regenerate naturally. Natural regeneration of soils has been successful elsewhere in the quarry and provides the optimum ecological solution.

Landscape Character Baseline

5.11 Landscape character studies provide guidance on the physical, historical and cultural land use and settlement patterns within an area. They also provide an indication of the potential capacity of an area to accommodate different types of development. Natural Resources Wales (NRW) has published a Landscape Character Study for the whole of Wales in 2014 for use at a regional level.

5.12. The site of the proposed quarry extension lies within Landscape Character Area NLCA02 Central Anglesey in the NRW Study. The Key Characteristics of this area are set out in the table below.

Key Characteristics
The land-locked central part of Anglesey - part of the largest island in Wales (720km2).
Rock outcrops and a distinct geological grain - the gentle topography, low lying and near flat in places, follows a north-east to south-west ‘grain’ imposed by major faults. Contrasting rock types include Ordovician sandstones and shale, bands of volcanic tuffs and Carboniferous Limestone. In various places there are many craggy rock outcrops.
Extensive drumlin fields - thick layers of glacial boulder clays, especially in north-west Anglesey, result in a classic ‘basket of eggs’ rolling drumlin landscape.

Lowland pastures and mixed field patterns - silty and peat soils underlie lowland pastoral grazing land bounded by a strongly geometric pattern of medium to large scale and, more occasionally, small scale fields.

Minor rivers and fens - A number of minor rivers and streams cross the landscape, whose alignment is influenced by the north east to south west trend. There are many shallow hollows and fens with wetland features including rush pasture and valley mires, for example Cors Erddreiniog NNR.

Hedgerows and cloddiau - This is generally a rolling, open landscape with a well established pattern of field boundaries, predominantly of hedgerows but with cloddiau in some areas.

Few woodlands - Woodlands larger than a small copse are an exception, being notably around Llangefni Dingle and Llyn Cefni reservoir, together with estate woodlands at Presaddfed (Bodedern). Except in sheltered areas, individual trees are few.

Generally rural settlement patterns - The only urban settlement is the county town of Llangefni, in the centre of the island. It's nucleated historic core contrasts with modern peripheral housing and expanding light industrial and business park developments. There are only a few villages, but numerous scattered hamlets and farms throughout the area. Linear, ribbon villages concentrate along Telford's the A5 road across the island.

Prehistoric and funerary sites - ritual and funerary monuments including cairns and round barrows, Iron Age hill forts and Early Christian churches, burial grounds and inscribed stones.

Historic windmill towers - including some restored examples, form local features.

Modern wind farms - generally limited to an area north of Llandeusan, but are seen in longer distance views from a much wider area.

Llyn Alaw – a large reservoir, nearly 3 miles long and a notable visual feature, providing significant over wintering habitat for wildfowl. Llyn Cefni is a smaller example of the same.

5.13 In respect of the area's Visual and Sensory Profile, NLCA02 states that:

“the landscape is one of large skies, which often reinforce the exposed nature of the island as clouds scurry acrossit has a gentle, rolling topography, occasionally broken by a few rocky outcrops and low ridges (associated with the north east to south west geological trend and the drumlin fields) and a number of flat fens. Each of these types has its own distinctive land cover and, apart from the fens, a well-established field boundary pattern.”

5.14 It goes on to state that:

*“More typically the area is seen as enclosed farmland, rural in character, tranquil in feel, with scattered farms throughout. The area has a few nucleated villages (e.g. Llanerchymedd) and linear villages (e.g. Gaerwen), the latter type characteristic along the A5 road. The main places of noise or movement and night lighting are the A5 and the more recent A55 Expressway, the expanding urban settlement of Llangefni with its visually conspicuous new industrial estates and, more intermittently, the Mona airfield. Jet aircraft from nearby RAF Valley (on the Anglesey Coast) also cross this area, as do main line trains to Holyhead. **Though there are two quarries near Gwalchmai, these are not widely visible.**”*

5.15 This last statement is of particular relevance to Caer Glaw, where the guiding design principal is to ensure that its visual impact is minimal and that betterment is created through progressive restoration.

5.16 With regard to Geological Landscape Influences, NCAL02 notes that:

“The underlying geology is formed from an ancient and complex structure of contrasting rock types ranging in age from Precambrian to Carboniferous....this structure has been largely masked and levelled by thick layers of glacial boulder clays deposited by melting ice sheets at the end of the last Ice Age, and occasional peats. This has created a gently undulating and in places near flat landform, which superficially has little variation except for the north east to south west ‘grain’ imposed by major faults, such as the Berw Fault, and variations in rock types.”

5.17 In respect of Landscape Habitats Influences, NCAL02 observes that:

“ Central Anglesey is dominated by low-lying, rolling farmland, much of it agriculturally improved livestock grassland on silty soils and bounded by hedgerows. These, and the limited numbers of small woodland copses, and areas of less agriculturally improved grassland, provide ecological interest.”

5.18 Again, as set out in the Ecological Assessment, the quarry and its immediate environs provides an important area for biodiversity and contains habitats which are not replicated on adjacent agricultural land.

5.19. Anglesey County Council published a Landscape Strategy Update in 2011. The Update was carried out in response to changes within the Welsh LANDMAP

methodology (subsequently superseded by the NRW Landscape Character Area Assessment for Wales (2014)).

- 5.20 The Quarry is located within Landscape Character Area 17 of the Strategy which is defined as West Central Anglesey. The topography of this area is described as *“generally undulating which reflects its underlying geology, particularly the Coedana Granites. This results in a number of rocky outcrops that typify the landscape of this part of the island. These, together with small areas of semi-natural habitats – hedges, trees, mires – are scattered throughout the area within a matrix of improved agricultural grassland.”*
- 5.20 In the Landmap Aspect Area Matrix for Landscape Character Area 17, Caer Glaw Quarry is assessed as having a “Low” landscape impact.

6. LANDSCAPE AND VISUAL IMPACTS

LANDSCAPE IMPACT ASSESSMENT

6.1 This section analyses the sensitivity and Landscape Character Areas within the study area affected by the proposed quarry extension.

6.2 The extent of the study area is defined by Gwalchmai to the south, Bodwrog to the east, Gwyndy to the north and Hen Felin to the west. The nature of any landscape impacts has been determined by assessing the magnitude of the effect and the sensitivity of the landscape resource.

Landscape Character Sensitivity

6.3 The sensitivity of the landscape resource has been determined by analysing:

- The susceptibility to change; and
- The landscape value

Susceptibility to Change

6.4 Table 1 below provides a summary of those factors affecting susceptibility to change of the Landscape Character Areas within and surrounding the site and with visual connectivity to the site (i.e. the Study Area) to this type of development.

Table 1 Susceptibility to Landscape Change

Factors Affecting Susceptibility	Comment	Sensitivity
Vegetation Type		
Tree cover type/ pattern	Tree/scrub cover generally found in less exposed sheltered topography. Generally relatively scarce in this part of Anglesey	Low
Rough grassland	Predominant landcover in this locality due to presence of thin soils and rocky outcrops. Loss of X hectares, all soils and overburden retained for use in restoration of benches.	Low/medium

Enclosure pattern	Small scale field pattern divided by hedgebanks/hedgerows and isolated trees. No field boundaries will be lost apart from at the northern boundary of the existing quarry which is primarily a wire fence.	Low
Topography	Gently rolling with rocky outcrops.	Low
Adjacent Built Form		
Land use	Existing quarry with no adjacent public rights of way. Area of proposed extension currently used for rough grazing.	Low
Settlement and Infrastructure pattern	The proposed extension lies to the north west of Gwalchmai. There is a ridge of higher ground between the quarry and village. The A5 and A55 lie to the south of the site and provide the main road routes to Holyhead.	Low
Landscape Condition	Typical and widespread average condition	Low
Overall Landscape Character Susceptibility to Change		Low

Landscape Value

6.5 Components of the landscape within the Study Area which contribute to landscape value are set out in Table 2 below:

Table 2. Landscape Value within the Study Area

Components contributing to Landscape Value	Comment	Value of site and immediate vicinity
Landscape Quality Conditions	Atypical of the wider character area; gentle undulating topography, with expansive views from higher ground.	Low/medium
Scenic Quality	Expansive views, relatively free of urbanising effects with the exception of the Hanson concrete batching	Low

	plant and waste recycling facility at the southern boundary of the existing quarry.	
Rarity	The features found within and adjacent to the proposed quarry extension are replicated elsewhere within its defined Landscape Character Area.	Low
Representativeness	Fair representation of the Landscape Character type.	Low/medium
Conservation Interest	To be added	
Recreational Value	There are no public footpaths/bridleways within or adjacent to the quarry extension.	low
Overall Landscape Value		Low (within quarry void) Medium (within wider study area)

Sensitivity of the Landscape Resource

6.6 From the above analysis it can be seen that the sensitivity of the landscape resource within the Study area is influenced by a number of factors. The assessment concludes that the overall sensitivity of the landscape resource to this type of development is Low-Medium within the Study Area.

Magnitude of Landscape Change

6.7 The magnitude of landscape change has been determined by analysing:

- The size and scale of landscape effects;
- The geographical extent of any landscape impacts; and
- The durability and reversibility of such effects.

6.8. The size and scale of landscape effects within the Study Area is set out in Table 3 below.

Table 3: Size and Scale of Landscape Effects

Landscape Components	Size, Scale and Extent of Loss/Nature of Change	Magnitude of Effect Within Study Area
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Field Boundaries	These will be retained intact with the exception of the northern boundary of the existing quarry which consists largely of remnant hedge banks and post and wire fencing.	Low
Hedgerow Trees/woodland	No woodland/hedgerows will be lost. There will be some isolated loss of a few areas of Hawthorn scrub.	Low
Openness	There will be no loss of openness caused by the quarry extension	Low
Overall Magnitude of Landscape Effect within the Study Area		Low

6.9 The duration of the effect will be medium term and the loss of rough grazing land will be permanent. The final landform will be a worked-out quarry void. As part of the development proposals, the upper benches will be soiled with retained quarry overburden and soils. These will be allowed to naturally regenerate to form a wildlife habitat.

Significance of the Landscape Impact of the Scheme

6.10 Table 4 below sets out the likely landscape effect of the proposed quarry extension. Generally, impacts upon the landscape character area are limited to the loss of X hectares of rough pasture. The extension area will allow the progressive restoration of the upper benches of the existing quarry at a much earlier stage, thus providing habitat gains during the operational life of the quarry.

Table 4 Significance of Landscape Effect

Sensitivity of Landscape Resource within Study Area	Magnitude of Landscape Change within Study Area	Level of Landscape Effect within Study Area
Low-Medium	Low	Slight Adverse

6.11 Consequently, for the location, type and scale of development, landscape effects within the Study Area would be Slight Adverse.

VISUAL IMPACT ASSESSMENT

- 6.12 A number of potential vantage points have identified within the defined Study Area. The extent and general location of these vantage points have been discussed and agreed with the Landscape Officer for Anglesey Council. A total of seven vantage points has been identified, all of which are located on the local road network. All are located within 500 metres of the quarry boundary with the exception of Viewpoint 7 which is a longer distance view.
- 6.13 This section of the LVIA should be read in conjunction with Appendix X which provides details of each of the seven viewpoints.
- 6.14 As set out in paragraph X, different types of vantage point, have different levels of sensitivity. The highest level of sensitivity is designated public rights of way (PROW). Whilst there are a number of PROWs within the study area, none have views either of the existing quarry or of the proposed extension.

Visual Impacts on the Road Network

- 6.15 Views of the existing quarry and the proposed extension have been classified as being of Medium Sensitivity.
- 6.16 A series of viewpoints (nos. 1-3) have been taken from the unclassified road which runs to the west of the site. As can be seen from the detailed visual analysis associated with each viewpoint in Appendix X, all of these viewpoints have clear, albeit partial, views into the existing operational quarry. The nature of these views varies depending on the exact location. It is accepted that the existing quarry has a Moderate Adverse Impact from these viewpoints.
- 6.17. However, from all these vantage points the proposed extension area will not be visible due to intervening topography which will be retained as part of the current proposals. The impact of the proposed extension is therefore Negligible. The extension does, however, have the potential to provide a Moderate Beneficial impact during the period of extraction as the overburden and soils stripped during Phases 1 – 3 will be utilised for the progressive restoration of the existing quarry void.
- 6.18 Viewpoints 4 – 6 are all located on the unclassified road which runs from Gwachmai to Gwyndy to the east of the quarry. From all of these viewpoints, the the proposed extension will have a Negligible to Low Adverse Impact. Only from Viewpoint 4 is the existing quarry visible and as can be seen from the analysis in Appendix, this only a low impact.

- 6.19 There is the potential for some limited soil stripping operations for the proposed extension to be visible from Viewpoints 4 and 5, however in the context of the overall timescale for the development, this will be extremely limited with soil stripping for each phase to take no more than three months. During the periods of soil stripping, there is therefore potential for a Low Adverse visual impact. However, once quarrying takes place below existing ground levels, the impact will be reduced to Negligible Adverse.
- 6.20 Viewpoint 7 is located north of the site at Gwyndy on the B5109. Neither the existing quarry nor the proposed extension site are visible from this vantage point due to intervening topography and vegetation cover. Impact from this location is, therefore, Nil.

Residential Properties

- 6.21 There are very few residential properties within the immediate vicinity of the quarry which would potentially have a view of the proposed extension. The properties are as follows:
- Clegir Mawr - as per Photoview 1 (Nil impact)
 - Clegir Farm – screened by intervening topography
 - Bryn Ala - as per Photoview 5
 - Bryn Afon - screened by intervening topography
 - Bryn Goleu – as per Photoview 6
- 6.22 As with the impacts from local roads, the impact on adjacent residential properties is considered to be Negligible to Low Adverse.

7. CONCLUSIONS

- 7.1. The proposed development consists of a modest extension to Caer Glaw quarry which is situated to the north west of the village of Gwalchmai. The site is situated in an area of open countryside with no designated landscape status. It is situated in an area denoted as the West Central Anglesey Landscape Character Area by Anglesey County Council. Rocky outcrops are identified as key features of this Character Area together with small areas of semi-natural habitats – hedges, trees, mires
- 7.2. The proposed quarry extension has been carefully designed to ensure that it does not result in an incongruous feature in the landscape and does not cause any material adverse visual impacts either during its operational life as a quarry site or in the longer term. Any minor adverse impacts will be temporary in any event.
- 7.3. The overall visual impact of the development will be extremely limited. There are very few residential properties that will be impacted by the proposed development and the impact on these properties will be minimal. There are very few public vantage points from which the site is visible and where views can be obtained, these are located on the unclassified road to the west of the site.
- 7.4. The development provides for the progressive restoration of the existing benches within the main quarry void. The upper benches of the proposed extension will be restored progressively utilising soils stripped from each of the faces, thus ensuring that the soils are compatible with the existing quarry. These soils will be allowed to regenerate naturally. Natural regeneration of soils has been successful elsewhere in the quarry and provides the optimum ecological solution.
- 7.5. The proposed development will therefore not cause harm to the character of the local landscape character or have any discernible adverse visual impact. The biodiversity impact of the proposed development is positive.
- 7.6. The proposed development furthers the environmental objectives of sustainable development and will deliver significant and tangible benefits in respect of biodiversity. It is also fully in accordance with the relevant policies of the Development Plan and Planning Policy Wales with regard to landscape and visual impact.

