

**FLINTSHIRE COUNTY COUNCIL**

**REPORT TO:** **PLANNING AND DEVELOPMENT CONTROL COMMITTEE**

**DATE:** **7 NOVEMBER 2012**

**REPORT BY:** **HEAD OF PLANNING**

**SUBJECT:** **CONSOLIDATION OF MINERAL EXTRACTION AND PROCESSING OPERATIONS, INCLUDING ANCILLARY DEVELOPMENT AT CEFN MAWR QUARRY, CASTLE CEMENT, CADOLE ROAD, GWERNAFFIELD, MOLD**

**APPLICATION NUMBER:** **047536**

**APPLICANT:** **CASTLE CEMENT LTD**

**SITE:** **CEFN MAWR QUARRY, CADOLE ROAD, GWERNAFFIELD, MOLD**

**APPLICATION VALID DATE:** **18/05/2010**

**LOCAL MEMBERS:** **COUNCILLOR N MATTHEWS**  
**COUNCILLOR A DAVIES-COOKE**

**TOWN/COMMUNITY COUNCIL:** **GWERNYMYNYDD COMMUNITY COUNCIL**  
**GWERNAFFIELD COMMUNITY COUNCIL**

**REASON FOR COMMITTEE:** **EIA SCHEDULE 1 DEVELOPMENT MAJOR MINERALS APPLICATION**

**SITE VISIT:** **NOT REQUIRED**

**1.00 SUMMARY**

1.01 This applicant seeks to consolidate all of the current mineral extraction and processing operations at Cefn Mawr Quarry, including all ancillary development associated with the quarry operations under a single, all encompassing planning permission to continue to permit limestone extraction until 21<sup>st</sup> February 2042. The application relates solely to the quarry area which already has planning permission, therefore no additional operational development is sought. Furthermore, the application would not extend the quarry boundary in any way, or extend the life beyond what it already is consented. This proposal would slightly reduce the extraction area as part of the site to the north has been excluded due to nature conservation interests.

**2.00 RECOMMENDATION: TO GRANT PLANNING PERMISSION, SUBJECT TO THE FOLLOWING:-**

2.01 The applicant entering into a legal agreement under the terms of the Town & Country Planning Act 1990 (as amended) Section 106 to:-

- a) revoke the existing Section 106 agreement completed on 19 January 1999 which existing operations are governed;
- b) revoke the existing Section 52 agreement of the Town & Country Planning Act 1971 completed on 13 November 1973
- c) The Site of Special Scientific Interest and the Special Area of Conservation shall be managed in accordance with the Management Plan appended to the legal agreement and the plan shall be reviewed and updated at five-yearly intervals.

2.02 Conditions including:

1. Duration of permission
2. Approved Plans
3. Plans to be kept on site
4. Extraction Limit; area and depth
5. Hours of operation – quarrying for cement manufacture
6. Hours of operation – other uses
7. Dust control
8. Dust mitigation
9. Noise mitigation
10. Noise Limits
11. Noise limits for temporary working and temporary working zones
12. Restricted working zones
13. Blasting hours of operation
14. Blast vibration limits
15. Blast monitoring
16. Oil storage
17. Ground water monitoring
18. No dewatering or excavation below 200m AOD until further investigations have been undertaken
19. Soil stripping areas
20. tree felling only if restricting quarrying
21. Permitted Development rights removed
22. Surface of the quarry road and mud on the highway prevention
23. Quarry waste to be retained on site for use in restoration
24. Continuous progressive vertical face restoration
25. Phased restoration
26. Restoration Masterplan
27. Final restoration and removal of plant and buildings
28. Restoration should winning and working cease prior to approved restoration levels being achieved
29. Standard tree/hedge aftercare condition
30. Five year aftercare
31. Annual meeting and reporting to review aftercare

- 32. Programme of archaeological works
- 33. Biosecurity Risk Assessment
- 34. Nature conservation mitigation
- 35. Quarry Liaison Committee

### 3.00 **CONSULTATIONS**

#### 3.01 **Local Member**

**Councillor Nancy Matthews** has been consulted as local member for the Gwernymynydd area, and has agreed that the application could be determined under delegated powers. However, as the development is EIA development, under the scheme of delegation the application is required to be determined by the Planning Committee.

#### 3.02 **Town/Community Councils**

**Gwernymynydd Community Council** has been consulted and have raised no objections to the continuation of mineral extraction at Cefn Mawr Quarry but have expressed a number of concerns in relation to:

- blasting and the long term effect on properties in the surrounding villages; the Community Council request surveys to be undertaken of vibration levels;
- the increase in vehicle movements in Cadole and Gwernymynydd and the related nuisance of noise from heavy goods vehicles especially between the hours of 06:00am and 07:00am. The Community Council have request that a traffic survey is undertaken to determine traffic movements in the locality, with the aim of putting control measures in place where necessary to reduce nuisance;
- the suspension of constructing a noise mitigation bund to screen the quarry for noise attenuation purposes;
- fugitive dust released to the atmosphere that may contain metals such as cadmium, lead and antimony.

3.03 **Gwernaffield Community Council** noted that whilst it was understood that the quarry company already has the necessary permissions in place, and that no additional development was being sought, the prospect of potential increased activity (should the quarry commence extraction of limestone for aggregate production) does raise some obvious concerns with regards to noise, blasting and traffic. The Community Council have requested that, as far as is technically practicable, Hanson should be required to provide an undertaking to proactively maintain the workings of Cefn Mawr Quarry Liaison Committee. It is felt to some degree that there has been a recent lapse in the frequency of these meetings and that as a consequence there no longer seems to be a flow of information to the community in regards to the quarry's activities.

#### 3.04 **Chief Highways and Transportation Engineer**

From a highway operation perspective, there is unlikely to be any

problems with regards to the proposed operation although there are concerns regarding pedestrian use of Cadole Road due to the increase in the Heavy Goods Vehicle (HGV) traffic. The A494 is a trunk road. The A494 (T) has recently be re-surfaced through to the junction with Cadole Road and, with minor discrepancies the junction layout currently conforms with the requirements of Design Manual Roads and Bridges. With regards to junction capacity the assessments have concluded that the existing junctions and road network would have sufficient capacity based on predicted flows. The additional traffic analysis indicates that there is unlikely to be any significant queue of right turning vehicles, and therefore the existing junction layout is deemed to be appropriate.

- 3.05 **Chief Environment and Resources Officer**  
**Environmental Protection** – does not object to the proposal. It is recognised that the in the north west of the quarry there would be an exceedance of the daytime dB noise limit and would therefore recommend that working in this area be restricted to the temporary working limits as specified in MTAN1. The night time noise limit of 42 dB (A) should also be incorporated into the planning permission and it is recommended that the existing silo side noise barriers and site boundary barriers be upgraded.
- 3.06 **Environment Agency Wales (EAW)** has no objection to the proposal but has concerns with regards contamination of controlled waters from fuel and oil storage tanks and surface water road run-off. Also, there appears to be no reference to the undertaking of periodic and proactive nature conservation surveys for protected and BAP species over the duration of the quarrying operations to keep abreast of the changes to the local ecology which may occur over time which may be relevant to these operations. Following the further consultation, EAW has no objection to the additional aggregate operations proposed, provided all pollution prevention measures are employed to ensure protection to the aquifer.
- 3.07 **Countryside Council for Wales (CCW)** do not object in principle to the proposed consolidation application subject to a number of conditions in relation to ground water, Regionally Important Sites, protected species, invasive non-native species and aftercare management. They also welcome the proposal to reduce the extent of land that would be used for future mineral extraction.
- 3.08 **The Clwydian Range Area of Outstanding Natural Beauty (AONB)**  
**Joint Advisory Committee (JAC)** supports the intention to consolidate the planning permissions for this long established major quarry adjoining the AONB, and welcomes the opportunity to update and modernise the conditions for the site via this planning application. In addition, the applicant's intention to exclude the currently permitted northern extension of the quarry as part of the new permission is particularly welcome.

- 3.09 The JAC's principal area of concern, is the impact of the quarry on views from the AONB, notably Moel Famau Country Park and the Offa's Dyke National Trail. Therefore, the JAC would wish to see the continuation of the good work to progressively restore the visible upper quarry faces at the earliest opportunity, to mitigate visual impact from the AONB. This should be given priority in the restoration scheme and associated programme of work. The final restoration proposals are supported, but the JAC would suggest that further consideration be given to providing public access to the site via permissive footpaths for quiet enjoyment of the site in the future.
- 3.10 The applicant's recognition of the biodiversity and geodiversity value of the site and the approach to conservation, including the preparation of a Geodiversity Action Plan (GAP) and Ecological Management Plans, is to be commended. These plans should be regularly monitored and updated during the life of the quarry and for a period beyond. In addition, the JAC would recommend that the preparation, implementation and monitoring of the GAP should be undertaken in partnership with NEWRIGS and the AONB Geodiversity Officer. The JAC would also urge the planning authority to consider the use of an agreement under S.39 of the Wildlife and Countryside Act to secure the long term management of the site.
- 3.11 **NEWRIGS** (North East Wales Regionally Important Geodiversity Sites) have commented on the planning application and is pleased that there is a GAP for Cefn Mawr Quarry and would welcome a partnership approach with Hanson and Castle Cement for the overall enhancement of the Geodiversity and improve educational links.
- 3.12 **The Welsh Government Transportation, Housing and Regeneration Department**  
As the Transport Statement does not indicate that there is an unacceptable impact on the trunk road network, the Welsh Government has no further comments with regards to the proposal.
- 3.13 **Clwyd Badger Group** does not object to the proposals and concurs with the findings of the Environmental Statement (ES).
- 3.14 **The Clwyd-Powys Archaeological Trust** do not object to the application but have requested a condition added to require the submission of a programme of archaeological work in accordance with an approved written scheme of investigations to record any archaeological remains that are discovered. The archaeological recording undertaken on site would be carried out by mining archaeological specialists.

#### **4.00 PUBLICITY**

- 4.01 This application was initially advertised by way of a press notice, site notices, and neighbour notification letters were dispatched to nearest residential receptors. The application was advertised in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 on 3 June 2010.
- 4.02 There was a second phase of consultation from 16 November 2010 undertaken in accordance with the above Regulations following the submission of a revised Transport Statement and an additional Night-Time Noise Assessment which notified consultees and neighbours of this additional information received.
- 4.03 Subsequently, the Council requested additional information under Regulation 19 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 as it was considered that the Environmental Statement had not assessed the potential impacts relation to the use of the quarry for aggregate limestone extraction. Therefore, once this information was submitted, there was a requirement for further consultation on this additional information received. The application was advertised in accordance with the EIA Regulations on 13 June 2012.
- 4.04 Over the duration of the consideration of this application, a total of 9 local residents have made representation against the proposed consolidation application. The main planning issues raised include:
- blasting and the affects of blasting including ground vibration, damage to properties and the cumulative effects on properties
  - the regulation of blasting and the monitoring
  - blasts being above acceptable levels and controls on explosions
  - dust
  - increase in heavy goods vehicle movements and traffic causing noise pollution and vibration
  - future developments at the quarry for aggregate and/or tarmac/asphalt production
  - the impact the quarry has on the Cadole Conservation Area
  - health concerns in relation to emissions from the cement works and dust pollution from quarry blasting and cadmium contamination
  - hours of operation – 24 hour operation
  - bank holiday working
  - hazardous waste that has been tipped at adjacent Pant y Buarth Quarry and potential contamination from any leaching
  - Run-off from the restored Pant y Buarth Quarry causing traffic hazards in winter months from freezing and causing ice hazards
  - Noise from loading of limestone from silos and the movement of heavy goods vehicles, especially through the night
  - Lack of noise attenuation
  - As traffic movements are unrestricted concerns have been raised with regards to conflict with Policy MIN3 of the Flintshire UDP.
  - Speed in which quarry vehicles travel along local roads

- 4.05 Concerns raised also include the potential intensification of activity at the quarry when nearby Aberduna and Trimm Rock Quarries close this year. Concerns have been raised with regards to the future use of Cefn Mawr Quarry for aggregate production once these nearby quarries are closed, which may result in the intensification of the operations at the quarry by additional plant and machinery such as crushers and screeners. Residents state that intensifying operations on the site would give rise to more blasts, more traffic movements, vibration, noise and dust. Also, it is considered that should this happen, the types of vehicles that would be used for aggregate production would be much smaller and potentially noisier than those delivering stone to Padeswood Cement Works. Therefore traffic would increase, resulting in more noise, dust and nuisance.

## **5.00 SITE HISTORY**

- 5.01 The site has a long a complicated planning history with a number of planning permission associated with limestone extraction and processing. There are a number of permissions relating to the built development on site and ancillary development associated with the limestone extraction. The main permissions pertinent to limestone extraction are detailed below:
- Interim Development Order (IDO) Permission ref H633 for Quarrying; Granted 24 January 1947
  - Permission ref H70/212 for extension to workings to the north-west; Granted 26 February 1971
  - Section 52 agreement dated 13 November 1973
  - Permission ref 3/MR/436/77 for extension to the south-east; Granted 20 September 1977
  - Registration of IDO permission 3/177/92; dated 22 May 1992
  - Determination of IDO permission ref 3/742/93; dated 27 March 1995
  - Section 106 agreement 5/99/19/133; signed 19 January 1999

## **6.00 PLANNING POLICIES**

- 6.01 Adopted Flintshire Unitary Development Plan  
Policy STR 7 - Natural Environment  
Policy STR 10 - Resources  
Policy GEN 1 - General Requirements for Development  
Policy GEN 3 - Open Countryside  
Policy D 3 - Landscaping  
Policy D 4 - Outdoor Lighting  
Policy TWH 4 - Woodland Planting and Management  
Policy L1 - Landscape Character  
Policy L2 - Areas of Outstanding Natural Beauty  
Policy WB 1 - Species Protection

Policy WB 2 - Sites of International Importance  
 Policy WB 3 - Statutory Sites of National Importance  
 Policy WB 4 - Local Sites of Wildlife and Geological Importance  
 Policy WB 5 - Undesignated Wildlife Habitats  
 Policy WB 6 - Enhancement of Nature Conservation Interests  
 Policy HE 1 - Development Affecting Conservation Areas  
 Policy HE 7 - Other Sites of Lesser Archaeological Significance.  
 Policy HE 8 - Recording of Historic Features  
 Policy AC 2 - Pedestrian Provision and Public Rights of Way  
 Policy AC 13 - Access and Traffic Impact  
 Policy EM 7 - Bad Neighbour Industry  
 Policy MIN 1 - Guiding of Minerals Development  
 Policy MIN 2 - Minerals Development  
 Policy MIN 3 - Controlling Minerals Operations  
 Policy MIN 4 - Restoration and Aftercare  
 Policy EWP 12 - Pollution  
 Policy EWP 13 - Nuisance  
 Policy EWP 16 - Water Resources  
 Policy IMP1 – Implementation and Planning Obligations

6.02 ***Regional***

North Wales Regional Aggregates Working Party Regional Technical Statement – Aggregate Minerals (2009)

6.03 ***National***

Planning Policy Wales (2010)  
 Wales Spatial Plan (update 2008)  
 Minerals Planning Policy Wales (2001)  
 MTAN 1 – Aggregates (2004)  
 TAN 5 – Nature Conservation and Planning (2009)  
 TAN 11 – Noise (1997)  
 TAN 18 – Transport (2007)  
 TAN 21 - Waste (2001)  
 Welsh Office Circular 601/96 (1996) Planning and the Historic Environment: Archaeology  
 PPS23 – Planning and Pollution Control (2004) (England)  
 MPG 9 – Planning and Compensation Act 1991 – Interim development order permission (IDOS) conditions  
 MPG10 – Provision of Raw Material for the Cement Industry  
 MPG 14 - Review of Mineral Planning Permissions

6.04 The main policies to be considered in the determination of this application are the emerging policies of the Flintshire Unitary Development Plan (FUDP) particularly: Policies MIN1 – MIN4, Policy L1 and L2, and Policies WB 1-4.

7.00 **PLANNING APPRAISAL**

**Introduction**



- 7.01 The planning application would effectively consolidate all of the various permissions pursuant to current mineral extraction and processing operations at Cefn Mawr Quarry. This would include the method of working, the quarry design and the final restoration concept and ancillary development associated with the site i.e. the minerals processing plant, concrete storage silos, site offices and canteen, weighbridge, workshop and garage, fuel/oil storage tanks, stores, magazine and site access road, under a single all encompassing planning permission which would permit limestone extraction until 21 February 2042. This represents the default date and limit under the provisions of the Planning and Compensation Act 1991 for IDO permissions and mineral planning permissions which had no working life limitation when originally granted.
- 7.02 The quarry extracts high purity limestone to supply Padeswood Cement Works with a constant and consistent source of limestone to manufacture cement. The remaining reserves within the mineral extraction area are at approximately 30 million tonnes of saleable limestone, which at a production rate of 1.3 million tonnes per year, would equate to a reserve life of 23 years. Operations in the past have seen an average of 850,000 tonnes of minerals transported per year but more recently, due to the recession, production figures have dropped significantly. In 2009 production was at approximately 433,000 tonnes, but by 2010 production was down to 234,000 tonnes. However, in 2011 production was up slightly to 278,297 tonnes, thus showing some signs of economic recovery.

#### **Site Location**

- 7.03 The quarry is located 0.6km north east of Loggerheads, 0.6km north west of Cadole, 0.8km south west of Gwernaffield, 0.9km south east of Pantymwyn and approximately 3km to the west of Mold. It is situated to the north of the A494, and between the villages of Cadole and Gwernaffield. Padeswood Cement Works is situated 8.5km to the east of Cefn Mawr Quarry, south of the village of Buckley.
- 7.04 The quarry is also located within and adjacent to the boundaries of the Alyn Valley Woods and Alyn Gorge Caves Sites of Special Scientific Interest (SSSI) and Alyn Valley Woods Special Area of Conservation (SAC). The Clwydian Range Area of Outstanding Natural Beauty (AONB) is situated to the immediate south and west of the quarry. The Milwr Tunnel is located to the east of the site at 26m AOD. Cadole Conservation Area lies approximately 300m away from the boundary of the quarry to the south east and is considerably lower topographically than the quarry.
- 7.05 Mold Golf Club lies to the immediate north of the site and the Loggerheads Country Park to the immediate south west. Alyn Valley Woods follow the route of the River Alyn to the west of the site. Recreation is a dominant land use surrounding the site. Elsewhere, the land surrounding the site is used for agriculture.

### **Site Description**

- 7.06 The application site covers an area of 93.64 hectares, with a permitted extraction area of 33.8 hectares. The plant site and offices are situated just off Cadole Road, which provides access to the A494 (T) to the south. To the west of the plant site area is the main quarry excavation area. The quarry is surrounded by broadleaved woodland, some of which is part of the Alyn Valley Wood, and some planted by the operator as part of the advanced planting for screening purposes and ongoing restoration at the site. Progressive restoration work have been carried out on the southern and western faces of the quarry by a combination of restoration blasting, earthworks, planting and natural regeneration of plant species on the quarry bench and shelves. This method of progressive restoration would continue throughout the development of the quarry.

### **Details of Proposed Development**

- 7.07 This planning application would effectively consolidate all of the current mineral extraction and processing operations and all ancillary development associated with the Cefn Mawr Quarry under a single, all encompassing planning permission, to continue to permit limestone extraction until 21 February 2042 at a depth of 173m AOD. The application relates solely to the area which has already been permitted and does not propose to extend the quarry boundary in any way, therefore no additional operational development is sought. The full extent of the currently consented extraction area has actually been reduced in the north of the site due to nature conservation interests.
- 7.08 The proposal would not alter the existing site infrastructure or the method of mineral working, extraction or restoration proposed. The limestone released from the extraction area would be processed through the existing plant and machinery as per the existing operation.
- 7.09 Carboniferous limestone is extracted from the quarry to be used primarily for the manufacturing of cement at Padeswood Works. As the chemistry of the limestone is important in cement manufacture, requiring a high purity limestone with low levels of contaminants, there are occasions when the quarry needs to be worked from two or more separate faces and the limestone blended in order to maintain a consistent mix of materials and to ensure that the chemical balance of the limestone remains consistent.
- 7.10 Generally, mineral working would be to the north-west to south-east direction by blasting, usually undertaken on a campaign basis; the frequency of which would depend on demand and the part of the quarry being worked. Blasted rock is crushed and loaded into the storage silo's ready for loading directly in the heavy goods vehicles, to then deliver the limestone to Padeswood.
- 7.11 The quarry does have the flexibility with in the existing IDO consent

and Section 106 agreement to supply limestone for alternative uses other than for the manufacture of cement. Therefore, the applicant would wish to continue to have this flexibility in any subsequent planning permission, hence the request by the Council for additional information to assess potential impacts of this operation.

- 7.12 For example, in 2011 the quarry supplied approximately 8,300 tonnes of armour stone to the coastal defence works at Colwyn Bay. Should planning permission be granted, the applicant would wish to be able to continue to supply armour stone for projects such as this in the future. Furthermore, they would also wish to be able to use poorer quality Cefn Mawr Limestone for other uses such as aggregate.
- 7.13 The supplementary information submitted by the applicant assessed the potential operational and development implications and effects of the production limestone for aggregate at a rate of 250,000 tonnes per annum, operating alongside the production of limestone for use in cement manufacture. At present the quarry does not have the infrastructure or equipment to process and supply aggregates on a large scale, and therefore this was a hypothetical scenario for the purposes of assessing the application, should the applicant wish to do so in the future.

### **Issues**

#### ***Principle of Development, suitability of location, Policy Context***

- 7.14 The principle of limestone extraction at Cefn Mawr has been deemed acceptable by virtue of previous planning consents. The proposal would not extend the extraction area further than is already permitted; as stated previously, the extraction area would actually be reduced slightly in the north of the site. It would not extend the life of the quarry beyond that of the existing consents.
- 7.15 MTAN1 recognises that the plan-led system in dealing with applications for new mineral extraction is best placed in determining the most suitable locations and that future extraction should only take place in the most environmentally acceptable locations. Whilst it is recognised that the existing active quarry is sited in close proximity to various environmental and landscape designations, these designations have been elected since the opening of the quarry, and indeed, some have occurred partly as a result of the operations at the quarry. Furthermore, mineral extraction can only take place where the mineral is found to occur.
- #### ***Need for the application***
- 7.16 As the site was governed by a number of planning permissions and a legal agreement, it was considered necessary for the operator to submit a consolidating application to avoid any confusion as to which permission was relevant. One single all encompassing planning permission would also aid monitoring and compliance.

- 7.17 The Section 106 agreement signed in 1999 required the operator to undertake a 10 yearly review. Furthermore, with the provisions of the Environment Act 1995, this requires mineral sites to be reviewed every 15 years. This application effectively provides the mechanism for reviewing both the IDO permission and the Section 106 agreement as required, and opportunity to apply more modern and relevant conditions, if necessary, in accordance with MPPW and MTAN1.
- 7.18 Should planning permission be granted, a Section 106 agreement would be required to effectively revoke the existing 1999 Section 106 agreement, and Section 52 agreement. The IDO permission would lapse via the passage of time, and the sole consent would provide the means of controlling and regulating operations at the quarry, until a further review is required in 15 years.
- 7.19 In terms of the need for Limestone, MPPW and MTAN1 provide clear policy guidance to ensure that future supplies of minerals are planned to meet society's needs. Cefn Mawr Quarry is the sole supplier to Padeswood Cement Works. Other limestone quarries in the area, whether within the control of the applicant or not, lack the capacity to supply the necessary quantity and quality of limestone. Therefore, there is a clear need for the continuation of limestone extraction at Cefn Mawr to continue to supply Padeswood with a consistent and constant pure supply of limestone. Furthermore, MPPW highlights the specific importance of Cefn Mawr Quarry for the high purity limestone that is present; to continue to supply the cement works, thus highlighting the national importance of the extraction of limestone at Cefn Mawr specifically for cement manufacture in relation to the economy of Wales and beyond.

#### ***Landscape and Visual Impact Assessment***

- 7.20 The ES assesses both the landscape and visual impact of the proposal to identify the magnitude of change and sensitivity of the receptors in order to establish the significance of the proposed development in bringing about change to the character of the existing landscape and the visual resources.
- 7.21 The Clwydian Range AONB is situated to the immediate south and west of the quarry. The site is also adjacent to the Alyn Valley Wood SSSI and SAC, which is located to the immediate south, east and west of the quarry. Whilst these are not specifically landscape designations they do contribute to the importance of the landscape.
- 7.22 Landscape impacts are essentially changes in the fabric, character and quality of the landscape. The overall landscape evaluation including scenic quality is considered to be low as the land is in poor condition due to limestone extraction. It is considered that the quarry has a weak sense of place and little landscape character with regards to visual and sensory. However, when assessing the cultural

landscape aspect of the quarry, it is considered to have a high landscape character due to its sense of place, and its historical and cultural significance for an understanding of Flintshire and its heritage. The impact on landscape features is considered to be neutral since the majority of the quarry footprint has already been opened, and forms the extraction area, which is well established.

- 7.23 With regards to landscape character, although the character of the wider landscape is dominated by the Clwydian Range AONB and the Alyn Valley Woods, the landscape impact of the continuing extraction at the quarry is also neutral as it would involve no significant changes to the landscape characteristics within the wider landscape. The impact on the local landscape would also be considered to be neutral due to the negligible change in characteristics with regards to the continuation of operations at the site. The existing quarry footprint area does have an impact on the surrounding landscape character; however, the deepening of these workings as proposed to continue would have no greater impact than already exists.
- 7.24 Visual impacts relate to specific changes in the character of views and the effects of those changes on visual receptors. The visual appraisal submitted with the ES identified a number of locations from which the quarry is visible. Whilst the site is considered to be well contained by surrounding woodland and topography, and views into the site are limited, the most direct views are from the AONB, and particularly from the viewing area at Moel Famau, and also from public rights of way that are located close to the quarry. The large silos in the quarry are visible from the valley floor surrounding the quarry.
- 7.25 The main views of the quarry from the immediate surrounding area include those from the immediate east of the site, including properties along Cadole Road, Hafod Road, and the properties and public footpaths on the hillside between the two roads where the top section of the processing plant and silos are obscured by boundary woodland. It is considered that the visual impact from these areas and from long distance footpaths on the AONB would be neutral as ongoing extraction operations would not create a change in the actual view. Future working would involve the progressive deepening of the existing quarry footprint. Furthermore, the progressive and vertical face restoration would continue, which would continue to mitigate impacts from the AONB. It is therefore considered that the impact of the proposal on statutory landscapes would be reduced and improved by restoration works undertaken at the site.
- 7.26 The visual impacts from areas that have views onto the top section of the quarry's northern extraction areas including views from the south west by Tafarn-y-Gelyn, properties on Frith Mountain, Mold Golf Club, and properties along Hafod Road, Gwernaffield and Pant-y-Buarth to the north would be considered to be intermediate-minor nature, as ongoing extraction operations would involve a minor change in view.

- 7.27 The submitted landscape and visual impact assessment is considered to be satisfactory. Much of the limestone above the surrounding ground level has already been extracted and therefore the working face is below ground level and it is considered that distant views of the site from lower levels would not be affected. Should the quarry commence processing aggregate, mobile plant would be located within the existing quarry void, vehicles would enter the quarry via the internal haul road which is well screened by existing mature trees and woodland, and distant views would be unaffected. There is the potential for an increase in the visible dust plume; however mitigation required by condition can required mechanisms to control dust to an acceptable level. Therefore, it is considered that the production of aggregates would have no significantly greater impact on visual impact or landscape.
- 7.28 The JAC for the AONB support the consolidation application. It is considered that the proposal would not have an adverse impact on the landscape character of the surrounding area or on the visual impact. As such the proposal complies with Policies L1, L2 and MIN2 of the Flintshire Unitary Development Plan.

***Ecology, biodiversity and Nature Conservation***

- 7.29 The quarry is immediately adjacent to three Wildlife Sites. The locality is ecologically rich and there are opportunities for enhancing the existing habitats through appropriate management. A full ecological assessment of the effects of the proposed development has been submitted as part of the ES, and concludes that the quarrying activities at the quarry would result in little adverse impact on any habitats or species found within or adjacent to the application area.
- 7.30 Should the quarry commence operations as an aggregate quarry, crushing and screening operations, together with the stockpiling and subsequent loading and transportation of aggregate from the quarry void has the potential to give rise to increase the risk of fugitive dust emissions from the site. Dust mitigation and dust suppression measures successfully employed at the quarry, including the use of water bowsers to dampen down internal haul roads would continue, which would manage any increased risk of fugitive dust that may arise from the production and sale of aggregates. It is considered that the potential operation is unlikely to give rise to any significant effects on features of ecological or nature conservation interests.
- 7.31 Using naturally regenerated vegetation within restoration, a range of habitats would be created which would maximise opportunities species already present at the quarry and enhance existing habitats. The unique vertical restoration techniques proposed would encourage new species to colonise which would contribute to the UK Biodiversity Action Plan and Flintshire Local Biodiversity Action Plan.

- 7.32 A Site Ecological/Biodiversity Management Plan is being prepared to ensure the maintenance and enhancement of the ecological interests of the site and surrounding areas. The ES is considered to be very comprehensive and appears to cover the current situation with regards to protected sites, and protected and priority Biodiversity Action Plan (BAP) species. The Management Plan would be part of the Section 106 legal agreement and would ensure that periodic and proactive surveys are undertaken over the duration of the quarrying operation to keep abreast of changes to the local ecology which may be relevant to these operations.
- 7.33 It is considered that the provision of the avoidance, reduction, mitigation and compensation measures, outlined within the ES have the potential to reduce the identified significant effects to have no significant impact. In the medium to long term, mitigation measures coupled with the implementation of the Management Plan, should provide an overall benefit for biodiversity within, and adjacent to the application area. As such, subject to conditions on implementation of mitigation measures as detailed within the ES, it is considered that the proposal accords with the provisions of Policies WB4, WB5 and WB6

***Statutory Sites of Ecological Interest and Protected Species***

- 7.34 As the site is located within and adjacent to the Alyn Valley Wood SAC the Local Planning Authority must have regard to the effect this proposal would have on the SAC, and consider if an appropriate assessment should be carried out in accordance with Regulation 61 of the Conservation of Habitats and Species Regulations 2010.
- 7.35 A test of likely significant effects has been carried out and concluded that with the mitigation measures proposed, there would be no significant environmental effect on the designated sites from the proposal. The main risk to the sites would be from dust. The quarry's operational permit, and also the permit for the plant and machinery used on site issued by the Local Authority would control and monitor dust emissions. A planning condition would also require dust mitigation and management to be employed on the site at all times to reduce dust. A Management plan would be required by the provisions of Section 106 and would be implemented in agreement with CCW which would enhance the SAC features in the long term.
- 7.36 Should planning permission be granted, the existing obligations requiring that no de-watering or excavation below 200m AOD shall be undertaken until a hydrological report has been submitted to and approved by the MPA. This would investigate the potential for impact on water features, including the Afon Valley Woods SAC, the Afon Alyn and also the River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC and the Dee Estuary SAC. The report would also require the quarry to address the need for the monitoring of water features/sources which may be at risk from derogation and identify and implement potential mitigation measures to an agreed timetable.

- 7.37 The quarry is surrounded by high quality habitat, which, if managed correctly would enhance the SAC and SSSI features, as well as benefit a number of associated habitats and species which would recolonise the quarry as natural restoration progresses. Ecological management plan required by the Section 106 discussed above would ensure the holistic management of all the nature conservation features including local, national and international designations. It would link the SSSI/SAC management ideals with the land within Hanson's control. Furthermore, Hanson Cement and CCW will be entering into a management agreement for the SSSI/SAC land within the control of the Quarry.
- 7.38 With regards to protected species, the application site has been subject to survey and assessment in respect of species protected under the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010, and the Protection of Badgers Act 1992. As part of the assessment, ecological sensitive areas containing rare species have been found. As such, the quarry design has been amended such that the quarry would not be worked to its originally planned northern limit.
- 7.39 The application includes proposals that aim to demonstrate that operations would not be detrimental to the maintenance of favourable conservation status (FCS) and habitats management. It is considered that, based on the overall provision of information within the application, the proposal would not be detrimental to the maintenance of the FCS.
- 7.40 It is considered that the future operation of the quarry accords with various national and local policies, and that, provided sensitive operations and restoration is implemented, the quarry and the various designations can co-exist without undue conflict. Should planning permission be granted, the quarry would be permitted to work to a depth of no more than 200m AOD unless hydrological investigations have proved that there would be no detrimental impacts on hydrology and ultimately to a maximum depth of 173m AOD, which would ensure that there would be no conflict with the relevant wildlife policies of the FUDP, namely policies WB1, WB2 and WB3.

#### ***Invasive Non-Native Species***

- 7.41 Due to the presence of *Crassula* in ponds, and other non-native species in woodland habitats on site, should planning permission be granted, a condition would require the submission and implementation of a bio-security risk assessment. Any non-native species planted for screening purposes would be removed as restoration progresses.

#### ***Geology and Regionally Important Geological (RIG) Sites***

- 7.42 The area surrounding the quarry has historically been the subject of much geological interest, particularly because the area can be



correlated with limestone across the country. The extraction of limestone at the quarry has exposed some interesting marker horizons in the strata. The exposure of the quarry face has enabled the limestone structures to be examined in detail.

- 7.43 The operator is committed to the Geodiversity Action Plan (GAP) process. At the time the application was submitted, it was noted however that the Cefn Mawr GAP did not include any reference to the two RIG sites at Cefn Mawr Quarry. RIG 97 is situated on the western side of the quarry within a final face of the quarry. RIG 69 relates to the mineralisation on some of the boulders that can be found on site including fluorite, sphalerite, calcite and barite.
- 7.44 However, as this has now been drawn to the attention of the Quarry, they now have copies of the two RIG designations. Should planning permission be granted, the Cefn Mawr GAP would be revised to include reference and consideration to the RIGs, and the the GAP would be monitored and updated on an annual basis during the life of the quarry and during the aftercare period.
- 7.45 During the consideration of the planning application, over the past 2 years, the quarry company has improved links with the North East Wales Regionally Important Geological Sites (NEWRIGS) and the Clwydian Range Geo-partnership, and there has been representation from NEWRIGS on the liaison committee.

#### **Residential Amenity and Buffer Zones**

- 7.46 This section of the report will examine issues relating to residential amenity including impacts of the quarry of ground vibration from blasting, noise, dust/air quality and hours of operation.
- 7.47 MPPW establishes the principle of Buffer Zones around permitted and allocated mineral extraction sites to protect land uses or developments that are most sensitive to the impact of mineral operations by establishing a separation distance between potentially conflicting land uses to reduce the impact on residential amenity. MTAN1 defines the extent of the buffer zones where there should be no new mineral extraction, or sensitive development. Policy MIN10 of the FUDP echoes the advice provided within MTAN1 and states that Mineral Buffer Zones for hard rock quarries, such as Cefn Mawr Quarry are set at a minimum distance of 200m, within which no new mineral extraction or sensitive development will be permitted.
- 7.48 Whilst it is noted that there are some residential properties located within the 200m mineral buffer zone around the extraction and processing area of Cefn Mawr Quarry, this application is a pre-existing quarry. The Policy only applies to new mineral extraction and the proposal actually reduces the extraction, area thus providing some benefit. Furthermore, as will be examined in the following section, mitigation measures employed at the site, and additional measures

required by condition would mitigate any adverse effects of quarrying on residential amenity to acceptable levels, and would ensure that the quarry would operation within limits published by guidance.

### ***Ground Vibration and Blasting***

- 7.49 The quarry undertakes controlled explosions within the working face to release the limestone. This method of extraction is referred to as blasting. Blasting is undertaken periodically throughout the year depending on the demand. There are typically between 70 to 100 blasts per year which are usually undertaken on a campaign basis; the frequency required is dictated by which particular part of the quarry is being worked and demand. Should the quarry work a further 250,000 tonnes of limestone each year for aggregate sales, this could give rise to up to an additional 16 blasts per annum. This modest increase is achievable by increasing the area and yield of the existing blasts undertaken for cement production.
- 7.50 The effect of blasting at the quarry felt by local residents is from the blast causing ground vibration and what is known as air overpressure. The quarry currently operates to a planning limit with regards to ground vibration of 4mm/s peak particle velocity (ppv) when calculated with a 95% confidence limit. Should planning permission be granted, this limit of 4mm/s ppv would continue to be imposed. National Planning Policy is set out in MTAN 1 and recommends a limit of 6mm/s ppv. Therefore, the conditional limit of 4mm/s ppv proposed is below recommendations set at a national level.
- 7.51 Cefn Mawr Quarry monitors each blast from one of an established group of properties located around the quarry. On occasions additional blast monitoring equipment is used to take more than one measurement. The results of the blasting assessment within the ES has shown that all sensitive receptors further than 225m from the blast site are unlikely to experience maximum ppv levels above 4mm/s using a 30kg charge.
- 7.52 With regards to air overpressure, whilst all blasting operations undertaken by the quarry would be designed to minimise air overpressure, so far as is reasonably practicable, there are a number of factors outside of the control of the quarry which mean that predicting air overpressure levels are very difficult. As air overpressure is transmitted through the atmosphere, weather conditions such as wind speed and direction, cloud cover and humidity will all affect the intensity of the impact. Due to this unpredictability, planning conditions to control air overpressure are not considered to be enforceable. However, the results from monitoring presented in the ES demonstrates that air overpressure at sensitive receptors is predicted to be up to 104 dB, indicating that air overpressure from blasting at the quarry is unlikely to cause complaint in accordance with the suggested 120 dB outlined in British Standard 6472 "Guide to evaluation of human exposure to vibration in

buildings”. Further to the measurements taken to support the ES, blast monitoring has shown levels are typically between 106 dB and 110dB. Air overpressure can cause physical damage to properties at high level, this is typically at levels between 140 dB and 150 dB which is well above what is experienced at properties as a result of blasting at Cefn Mawr Quarry.

- 7.53 Residents have questioned the validity of the operator self monitoring their blasts. The North Wales Minerals and Waste Shared Planning Service undertake regular and ad hoc monitoring of blasting at all quarries in the region, including Cefn Mawr. The independent monitoring undertaken by the Shared Service indicates that the blasts at Cefn Mawr Quarry are well within the safe and permitted limits. Furthermore, through the monitoring of each blast operation, Cefn Mawr Quarry is able to continually improve and refine the blast design for each subsequent blast as far is reasonably practical.
- 7.54 Gwernymynydd Community Council and residents have raised concerns in relation to blasting and the long-term and cumulative effects on properties in the surrounding villages from blasting over time, thus attributing damage to properties from the quarry blasts.
- 7.55 MTAN1 draws upon advice set out in British Standard 7385 Part 2, 1993 Evaluation and Measurement for Vibration in Buildings entitled “Guide to Damage Levels from Ground Borne Vibration in Buildings”. The guidance sets out vibration limits to preclude the onset of damage to the types of structures encountered around quarries, including residential properties. It recognises that there is a major difference between the relatively low levels of vibration that are perceptible to people, and the far greater levels at which the onset of damage is possible. The guidance sets out the lowest vibration levels above which damage has been credibly demonstrated. Cosmetic damage, or hairline cracks in plaster or mortar joints, should not occur at vibration levels lower than 20mm/s ppv at a frequency of 15Hz and lower than 50mm/s ppv at 40Hz and above. This is significantly higher compared to the 4mm/s ppv limit which is set at Cefn Mawr Quarry.
- 7.56 Further research has been undertaken by the United States Bureau of Mines which concluded that no damage to buildings has occurred in any of the published data at vibration levels less than 12.7mm/s ppv; again significantly higher than the levels set at Cefn Mawr Quarry.
- 7.57 To put the blasting data into perspective with by comparing this with everyday events which produce vibration; measurements taken at 1m from someone walking on a wooden floor gives a max ppv of 2.3mm/s ppv, a door slamming measured at 1m away on wooden floors gives a ppv of 5.3mm/s ppv and a foot stamp on a wooden floor measured at 1m away gives a ppv of 52.7mm/s and when measured at 6m away it diminishes to 5.6mm/s ppv.

7.58 The quarry company continually seeks to minimise blast vibration and air overpressure through blast design and there is no evidence to prove that continued ppv levels of 4mm/s (well below guide values) can cause damage to properties. In the interests of local amenity, it is standard industry practice to limit the time of day during which a blast can take place. At Cefn Mawr Quarry blasting is limited to between the hours 10:00 and 16:00 hours Monday to Friday (excluding public holidays). Should planning permission be granted, these limited hours for blasting would continue. Further efforts have also been made by the quarry to inform local residents of the schedule of blasts so that residents are prepared for the blast to occur on a given day. Improved communication through the Quarry's Liaison Committee has reduced complaints with regards to blasting.

### **Noise**

7.59 The applicant proposes that existing noise limits are imposed. Existing noise limits are:-

- 55 dB LAeq, (1 hour) (free field) as measured 3.5 metres from the nearest noise sensitive property between 0700 and 1900 hours
- 50 dB LAeq (1 hour) (free field) between 1900 and 2000 hours
- 45 dB LAeq (1 hour) (free field) between 2000 and 0700 hours.

The maximum noise level at any noise sensitive property excluding noise attributable to blasting shall not exceed 70 dBLA max (free field) during the permitted hours of work

7.60 MTAN 1 provides advice on noise limits for aggregate extraction. The guidance recommends a maximum daytime (0700-1900) noise limit of 55 dB(A). Night-time (1900-0700) working limits should not exceed 42 dB(A). During temporary and short-term operations, higher levels may be reasonable but should not exceed 67 dB(A) for periods up to 8 weeks in a year at a specified noise sensitive property. These are slightly different to the limits the applicant is requesting.

7.61 A noise assessment was undertaken as part of the ES which considered the worst case average noise levels at nearby sensitive receptors from the quarry operations associated with both operations as an aggregate quarry, and that of the existing supply of limestone for cement manufacture, including movements along the quarry haul road and site access road.

7.62 The assessment concluded that noise levels are predicted to be within planning limits (55dB(A)) except at some receptors when the limit is marginally exceeded when extracting at the 265m AOD bench (56.7 dB(A)). However, when the mineral extraction moves down into the quarry void, the noise from site activities is predicted to be below the existing planning limits and those recommended by national policy.

7.63 Mitigation measures are recommended within the ES to ensure that the site operates within proposed limits. The assessment establishes temporary working zones on the upper northern and western benches

of the quarry, where slight exceedences have been predicted to occur, within which the duration of mineral working should be limited to periods of up to eight weeks in a year. This would be considered to be in line with national guidance set out in MTAN 1 as detailed about for temporary operations. It is worth noting that the assessments undertaken predicted that no receptors would experience noise levels above the temporary limit of 67 dB (A) defined by MTAN 1 criteria.

- 7.64 During the hours of 1900–2000, the assessment results demonstrate that all receptors are predicted to be within the existing planning limits, again, with the exception of some nearby sensitive receptors. In order to remain within the 50 dB(A) limit as requested, between 1900–2000 a restricted working zone has been proposed. It is recommended that soil stripping, mineral extraction and restoration works within the restricted working zone should not take place between these hours. Only limestone extracted for uses in the cement manufacture would be occurring after 1800 hours and it is not normal practice for the quarry to be operating until 2000 hours.
- 7.65 Local residents have raised concerns with regards to night time loading of limestone, and they have questioned whether this is above acceptable levels. The findings of the subsequent night time noise survey was such that the quarry is operating in compliance with the existing noise limits and it also recommended some practical steps and good house keeping measures to further reduce noise levels from the operations. The quarry company has taken some of these recommendations on board and has been working with the haulage company to implement mitigation measures, and they have also been liaising with key sensitive receptors to try to resolve the issue of disturbance of night time loading. Additional noise mitigation measures employed on the site include loading procedures, reduction in particle size, improvements to existing acoustic barriers, and using trailers that are rubber lined. Since the implementation of noise reduction measures, complaints from loading during the night have reduced considerably with an overall noise reduction of 10.5dB.
- 7.66 The existing night time noise limit is set at 45 dB LAeq (1 hour) (free field) as opposed to the recommended limit within MTAN1 of 42 dB LAeq (1 hour) (free field). The night time noise assessment which accompanied the ES recommended that the current silo side noise barriers and boundary barriers could be upgraded, or enlarged. Should this be implemented the report predicted a 4-5 dB reduction could be gained. However, since the recent night time noise survey demonstrated that the quarry could operate at night within the recommended MTAN1 noise limit of 42 dB LAeq (1 hour) (free field), it would be unreasonable, and unduly onerous to require further noise mitigation to be implemented. A condition would however ensure that noise output is monitored and reviewed annually to ensure that noise mitigation would continue to be effective.

- 7.67 With the exception of night time noise limits which should be reduced to 42 dB LAeq (1 hour) (free field), it is recommended that the existing planning limits should continue to apply, should planning permission be granted. However, soil stripping, mineral extraction and restoration works, within the proposed temporary working zone be limited to up to 8 weeks per year at 67 dB LAeq (1 hour) (free field), in line with national guidance.
- 7.68 Cefn Mawr Quarry produces high purity limestone for use in cement manufacture and as such, is noted as a nationally important strategic resource. MPPW provides that it is essential for the national economy that limestone of the quality and quantity required continues to be produced and safeguarded for future use. MTAN 1 sets out detailed advice on the mechanism for delivering the policy for aggregate extraction which includes recommended noise limits. As detailed above, applicant proposes that existing noise limits are imposed, rather than those recommended in MTAN 1. The proposed limits, with the proposed mitigation measures, temporary and restricted zones are considered to be acceptable when balancing the national strategic need for limestone as detailed in MPPW. The noise assessment predicts only slight exceedances at some noise sensitive properties. However, operations, at identified locations and working heights within the quarry have been predicted not to exceed the temporary working limit as recommended in MTAN1. It is worth noting also that there have been no complaints received with regards noise from the mineral extraction process.

***Air Quality; Dust***

- 7.69 A qualitative dust impact assessment of the effects of activities at Cefn Mawr was undertaken to determine the potential effects of operations on site. This was subsequently undertaken with regards to the potential aggregate production and operations associated with aggregate sales.
- 7.70 The assessment concluded that the existing environmental management practices on site which includes dust mitigation and management from a water bowser to dampen internal haul roads, and the use of filters on the mineral processing plant to collect dust, are considered to be adequate to prevent adverse air quality effects at nearby sensitive properties. The effective mitigating effect of local topography, existing vegetation, and the environmental control measures employed on site have resulted in the conclusion that the impact of dust emissions upon the environment would be low to negligible.
- 7.71 Furthermore, all plant, either fixed or mobile would either carry an individual environmental permit, or would be required to operate in compliance with the conditions of the quarry's permit, which comprise of 41 conditions associated with emissions limits and controls, monitoring, sampling, stockpile management and measurement of

emissions, material handling and operational controls. Should planning permission be granted, a condition would require all dust mitigation measures to be reviewed annually to ensure that measures are still appropriate for current operations.

### ***Impact on Health***

7.72 Health impacts as a consequence of quarrying include the effects of uncontrolled releases of dust and noise. The primary mineral at Cefn Mawr is limestone, composed mostly of calcium carbonate. Mineral related dust produced from limestone tends to be larger in size and tends to settle to the ground due to its weight and density rather than remaining suspended and therefore less susceptible to being transported outside of the quarry boundary. Furthermore, limestone dust is soluble and does not pose the same risk presented by silica rock. With regards to noise, provided that it is kept to limits, as indicated within published guidance, noise is not predicted to be at levels that would be expected to give rise to adverse health effects.

7.73 It is noted that potential impacts on health must be considered in relation to proposals for aggregate extraction, and that health impact assessments should be carried out for new quarries located within one kilometre of an existing community. This application is for the consolidation of existing consents at the quarry and no new development or extraction is proposed. As such, it was considered that a full health impact assessment was not required. However, as stated above, the applicant has considered the impact on dust and noise and concluded that existing dust management and noise mitigation and limits would ensure that the proposals should not cause adverse effects on health.

### ***Hours of Operation***

7.74 Working hours in relation to the quarrying of material for the manufacture of cement are restricted to:

- 0700-2000 hours Monday to Saturday, and no working of Sunday and Public/bank holidays except for 12 occasions per year between the hours of 0800-1800 (the dates of such operations shall be notified to the local planning authority in advance);
- Loading and lorry dispatch, essential maintenance and repair work are unrestricted and may be undertaken on any day, and carried out at any time, provided such work is carried out in a manner as to minimise disturbance to nearby residential properties;
- Soil stripping and overburden removal shall only be carried out for a maximum of 8 weeks in any calendar year between 0800-1800 hours Monday to Friday, and 0800 hours to 1200 hours on Saturdays, provided that no operations are carried out during the hours of darkness. No operation shall be carried out in relation to soil stripping and overburden removal on any Sundays or Public/Bank Holidays.

- 7.75 With regards to the extraction and processing of limestone and loading/lorry dispatch for any other purposes other than cement manufacture, working hours are restricted to:
- 0700-1800 Monday to Friday, and 0700-1200 Saturday, with no working on Sunday and Public/bank holidays except for maintenance or in the event of an emergency, unless prior approval from the Local Planning Authority has been obtained.
- 7.76 The application does not propose to change these existing working hours. The unrestricted times for the transportation of limestone for cement are a reflection of the specific requirements of the cement manufacturing process. This has been deemed acceptable by virtue of previous planning consents on the site.
- 7.77 Hanson Cement have a contract with a designated haulage company which serves the quarry for transportation to Padeswood to the cement kiln. These vehicles are standardised vehicles as they are part of a fleet which serves Cefn Mawr Quarry. These large modern vehicles, which minimise the number of movements to and from the site, and have rubberised floors to reduce the sound of loading of limestone, reversing beepers are silenced during night time hours, and are modified to reduce the impact of night time loading. Any complaints received by the Quarry or the Council with regards to vehicles associated with the Quarry operations are reported to the haulage company and also discussed at the quarry liaison meetings in order to resolve issues that may be experienced in the locality.
- 7.78 Furthermore, the vehicles are fitted with Satellite navigation systems which allow the haulier to monitor the location and speed and vehicles at any time. Additional measures are in place such as cameras fitted inside the cabs to record the journey. Both can be used to verify any complaints received and taken any necessary subsequent action.
- 7.79 Concerns have been raised with regards to the unrestricted lorry loading and dispatch of limestone, and local residents have questioned compliance with the minerals policies within the Flintshire UDP. Policy MIN 3 of the Flintshire Unitary Development Plan states that mineral working will be permitted where the movements of vehicles to and from the site do not cause unacceptable harm to the living conditions of nearby residents. The ES demonstrated that with conditions there should be no harm caused to nearby residents. Unrestricted loading and dispatch is required due to the need to maintain a steady supply to material to the Padeswood cement works. As stated previously, the cement industry is important to both the local economy of Mold and the national economy and supplies at Cefn Mawr are recognised by national policy as strategically important.

**Conclusion for Residential Amenity**

- 7.80 MPPW recognises that it may not be possible for mineral workings to



avoid adverse environmental or amenity impacts, but where it is not possible, working needs to be carefully controlled and monitored so that any adverse effects on local communities are mitigated to acceptable limits.

- 7.81 It is considered, as discussed above, that whilst there are residential properties within the defined mineral buffer zone, all potential affects from noise, dust, blasting and vibration can be controlled and mitigated by the measures outlined above to acceptable limits as set out in guidance. It may be possible for local residents to hear operations, to feel the effects of vibrations from blasting, and to experience dust. However, it is considered that the mitigation methods employed at the site at present, and via the mitigation measures proposed above, that the mineral activity would not cause unacceptable adverse effects. As such, it is considered that the proposal accords with the provisions of Policies GEN1, MIN 3 and MIN10 of the FUDP.

#### ***Traffic and Transportation***

- 7.82 Limestone destined for Padeswood Cement Works is collected in standard 28 tonne articulated vehicles, using a single dedicated haulage fleet. As stated above, lorry loading and dispatch is continuous in order to maintain the supply to the cement works which operates on a 24 hour basis. Based on the maximum capacity at the cement works, the maximum heavy goods vehicle movements would be 10 loads (20 movements) per hour between 0700–1700 hours. The assessments have been based on a worst case scenario. Between 1700–0700 hours there would be a maximum of 5 loads (10 movements) per hour as the quantity of materials exported is restricted to the size of the silos (4 silos storing up to 500 tonnes).
- 7.83 The current site access leads directly from the Cadole Road and is designed such that it provides good visibility in either direction for vehicles to move safely to and from the quarry. The majority of traffic using the site turns right onto Cadole Road to gain access to the A494 and then travels eastwards towards the Padeswood Cement Works.
- 7.84 An assessment has been undertaken on the highway capacity using the above worst case scenario. It concluded that during normal operation, the quarry traffic flows generated on the A494 (T) are not considered to be significant. During the potential peak quarry output flows, the traffic generated on the A494 (T) increases by 5.9% which although considered to be a significant increase, it is still within the capacity of the A494 (T) at this location.
- 7.85 A further assessment was undertaken on the potential vehicle movements associated with limestone sales for non-cement uses. This was based on an assumption of 20 tonne loads during a ten hour day. This would equate to potentially 5 loads per hour (10 movements) in addition to the vehicles transporting limestone to

Padeswood Works. The additional assessment revealed that there would be considerable spare capacity during both peak periods at both the site access junction, and the A494 (T)/ Cadole Road junction to accommodate additional development related traffic.

- 7.86 The assessments have been based on a worse case scenario and it is unlikely that the quarry would operate at those rates. However, the assessments have demonstrated that there is sufficient capacity on the highway.
- 7.87 At present HGVs only enter the concrete yard area to load. HGVs collecting aggregate would need to use the internal haul road to access the quarry void, should the quarry start to sell limestone for aggregate. As discussed above, a water bowser is used on site to dampen internal haul roads, the quarry entrance and access road. To date this has proved effective and would continue to be used. However, there remains the risk that vehicles entering the quarry void may carry mud or other debris from the quarry, into the yard area and thus on to the highway.
- 7.88 At present lorries used to transport armour stone from the site also enter the quarry void in order to be loaded. A road sweeper is used at site to ensure that the access road and the entrance are free from any mud or debris deposits. Should planning permission be granted, this would continue, but it may be appropriate to require other measures, such as a wheel wash to be installed, or re-surfacing of internal roadways, and therefore a condition would be required that no material would be carried on the highway and mitigation methods shall be reviewed annually.
- 7.89 The road between Cadole and Gwernaffield is used by pedestrians and does not have a pavement which gives rise to concern, in relation to pedestrian safety, especially during hours of darkness. However, efforts made by the Quarry Liaison Committee and Ward Member, have facilitated the construction of a segregated pedestrian footpath, which is a permissive footpath on the Quarry land which was funded by the Sustainable Aggregates Levy fund. The quarry provided the materials for the footway which improves pedestrian safety along the Cadole Road.
- 7.90 Concerns have been raised in relation to alleged run-off from Pant y Buarth tip causing traffic hazards in winter months from freezing and causing ice hazards. The company has investigated this issue jointly with FCC highways department. It has been established that the water was coming from a spring on the company's land. To resolve the problem the company agreed with FCC's highways department to dig a trench and install a small soak away along the edge of the road. This was carried out in April 2011 and there has been no evidence of further run-off or traffic hazards since.

- 7.91 The assessments submitted with the planning application and further assessments undertaken as part of the planning process concluded that there is no evidence to suggest that the quarry traffic is, or would have a detrimental impact on road safety or amenity of the local highway network and that there is adequate capacity on the road network. As such, it is considered that the proposal would accord with the provisions of the FUDP Policies GEN1 and MIN3.

***Public Rights of Way***

- 7.92 A number of public rights of way run close to the quarry (Public Footpaths, 5, 7, 8, 9, 22, 30D, 41, 41D, 42 and 43), including public footpaths that run through the woodland to the south and north west of the extraction boundary. A number of public footpaths run through Mold Golf Club. As there are no public footpaths within the application site area, it is considered that the proposal would not affect the functionality or integrity of any public rights of way.

- 7.93 The AONB JAC requested that the company consider public access via permissive paths through the application area once the quarry has been restored. Unfortunately deep limestone quarries are inherently hazardous and dangerous places, especially closed sites. The company considers that future access to the site, once restored should be restricted for health and safety reasons, and that no public access should be provided for. Furthermore, public access may also conflict with the nature conservation objectives of the restoration and aftercare which will be discussed in the following section. There are however many footpaths that surround the quarry site which provide views into the site and access to the nature conservation designations.

***Restoration and aftercare of the Site.***

- 7.94 Cefn Mawr Quarry has been undergoing successful progressive vertical face restoration which would continue. The restoration to date is to be commended and is an example of good practice in the industry, especially as it allows natural regeneration which is in keeping with the surrounding semi-natural habitats and designations including the AONB.

- 7.95 The continuation of this method of restoration would ensure that the site would be high in biodiversity. To the south and west of the quarry, the lateral extent of the quarry footprint has been reached and the upper benches have already been restored. The vertical restoration technique employed at the site has been designed to maximise the wildlife potential of the site and it utilises naturally regenerated vegetation. This involves restoration blasting and translocation of naturally regenerated plants on the edge protection bunds and 'nursery stock' that has developed naturally elsewhere on the site. This produces a vertical restoration where the quarry face can quickly become 'greened' with locally sourced plants. To date this restoration technique has proved successful and would be continued to be

employed at the site in the future. The restoration proposals and site management plan would create new habitats and enhance existing habitats within and adjacent to the quarry.

- 7.96 All restored areas of the quarry would be subject to a formal five year aftercare period to ensure that the intended habitats are successfully established.
- 7.97 The application and supporting documents provides details of the restoration concept, Masterplan and methodology and also aftercare details. The quarry would be restored in line with the Restoration Masterplan, but should planning permission be granted, detailed phased restoration plans would be required to be submitted every five years which would sit along side the Section 106 Management Plan. A condition would require five yearly submissions of the details of the restoration and aftercare that would be expected to be carried out within the following five year period. The Section 106 Ecological Management Plan would ensure that the site is managed in a holistic manner to ensure nature conservation enhancements throughout the life of the quarry. This would provide the overarching framework for any future potential after-use of the site.
- 7.98 Both CCW and the AONB JAC have requested that the Council consider ensuring the long term management of the site via a Section 106 or Section 39 agreement of the Wildlife and Countryside Act 1981. However, since the quarry would be operational for another 23 or more years, and would be subject to on-going progressive restoration and by the Section 106 Ecological Management Plan, which would be monitored annually and reviewed every five years, it is considered that the requirement for longer term management would go beyond what is required by planning policy and would be unjustifiable in planning terms to meet the necessary planning tests.
- 7.99 As the quarry is restored progressively, more habitats would be developed and the Section 106 Management Plan would include the developing habitats and would be updated every five years. The plan would include details of management undertaken during the plan period and include proposal for the next five years. Due to the duration of the life of the quarry, this continuous management is considered sufficient to ensure the site is managed in the long term during the life of the quarry. As such, it is considered that the proposal accords with the provisions of MTAN 1 and Policy MIN 4 of the FUDP.

***Hydrogeology, Hydrology and drainage***

- 7.100 The site is located on the Karstic Carboniferous Limestone, designated as a Principal Aquifer, and potentially vulnerable to pollution. Concerns have been raised with regards to controlled waters specifically with reference to risk of contamination to enter the system from fuel and oil storage tanks and surface water run-off. It is considered that it would be necessary for the operator to follow the

Environment Agencies Pollution Prevention Guidance 2 and 5 with regards to fuel and oil storage and road drainage. This would be attached to any decision notice as an informative and controlled by the Environment Agency Wales through the operators Permit.

- 7.101 The Milwr Tunnel is located approximately 200m to the east of the site at 26m AOD and drains the local area of groundwater. The groundwater regime at Cefn Mawr is greatly influenced by the presence of mineral veins, cave systems and faults in the area. It is understood that the area drains into these features which, in turn drain into the Milwr Tunnel. Therefore, no dewatering would be required due to the effect of the Milwr Tunnel has on ground water levels in the area.
- 7.102 The River Alyn flows south east to north west at an elevation of 173m AOD, approximately 500m to the west of the quarry void. There are no abstractions or protected sites at risk from the quarry operations and whilst the quarry floor remains above the level of the River Alyn, it is considered that quarrying would not present a risk to flow in the river. As stated above, should planning permission be granted, no dewatering or excavation below 200m AOD shall be undertaken until a hydrological report has been submitted to and approved by the MPA. Furthermore, the ultimate depth of the quarry would be conditioned to 173m AOD. As such, it is considered that the proposal accords with the provisions of Policy EWP 16 of the FUDP.

### ***Archaeology***

- 7.103 Quarrying operations would involve the deepening of the existing quarry footprint. Therefore there would be no effect on undisturbed ground. Any effects upon archaeology would therefore be limited to any potential for the discovery of old mineral workings. The ES concludes that there would be no significant effects upon the cultural heritage, should mitigation measures be in place.
- 7.104 The archaeological assessment submitted states that 18<sup>th</sup> and 19<sup>th</sup> century mining remains would certainly be encountered, and that there is an unknown potential for workings of much earlier dates. Should planning permission be granted, a condition would require a programme of archaeological work, in accordance with an approved written scheme of investigations be submitted to record any archaeological remains that are discovered during the operations at Cefn Mawr Quarry. The archaeological recording undertaken on site would be carried out by mining archaeological specialists.

### ***Hazardous and Contaminated Waste***

- 7.105 Concerns have been raised by local residents with regards to tipping hazardous waste at adjacent Pant y Buarth. For clarification purposes, this site is a licensed tip that has been used for many years for the disposal of Cement Kiln Dust (CKD) which, when operational was classified as a non-hazardous waste landfill. The tip is now no

longer active; it has been capped and has been restored. The company is working with the Environment Agency Wales and they have formally closed the tip. As such, the tip has now entered a period of long term aftercare and monitoring. The company has no proposals to tip CKD waste at Cefn Mawr Quarry in the future. This application does not include the tip within the consolidation application. Any future plans for tipping CKD waste would require further planning consents.

***Impact on Cadole Conservation Area***

- 7.106 Residents have expressed concerns with regards to the impact the quarry operations have on Cadole Conservation Area. The Conservation Officer has been consulted and has no comments on the proposal. The issues that have been raised including noise, dust and lorry movements are all material planning considerations that have been considered in the assessment of this planning application as detailed above. The operation of the quarry does not affect the setting, or detracts from the visual amenity of the Conservation Area. It would be inappropriate to afford more weight to these issues in this particular conservation area compared to a similar area not covered by that status.

***Supply of Limestone other than for the manufacture of cement***

- 7.107 As two local aggregate quarries will be closing at the end of the year which are operated by Hanson Aggregates, concerns have been raised by local residents that the company may wish to supply the aggregate market with limestone extracted from the Cefn Mawr Quarry, in addition to the supply of limestone for uses in the manufacture of cement. Cefn Mawr Quarry is managed by Hanson Cement which is a separate division to Hanson Aggregate, both of which are part of the Heidelberg Cement Group.
- 7.108 Whilst the quarry does have the flexibility to supply limestone for uses other than for the manufacture of cement, and the applicant wishes to retain the flexibility as part of this proposal, it was considered that the potential operational or development implications relating to the production of limestone for alternative uses had not been considered as part of the ES. As a result, as detailed above, the Council requested additional information under Regulation 19 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 for the company to undertake an assessment of any operational or development implications relating to the production of limestone for alternative uses.
- 7.109 Therefore, the Company provided supplementary information to describe the development characteristics that would be associated with the hypothetical situation in which limestone were produced for non-cement uses. It was agreed that the most likely alternative commercial use would be for construction aggregate using the poorer quality of the Cefn Mawr Limestone. The assessment concluded that,

taking into the consideration of the recommended mitigation measures and conditional limitations as discussed above, the proposed operation, in conjunction with the production of limestone for use in cement manufacture would be unlikely to give rise to any significant environmental effects, and any adverse effects would be controlled by condition as detailed above.

- 7.110 Furthermore, it is unlikely that the Company would wish to use strategically important and more valuable pure limestone for low end uses such as construction aggregate production, when there is greater value in supplying limestone for use in cement manufacture; the main focus for the operations at Cefn Mawr Quarry. Whilst two aggregate quarries in the locality will be closing at the end of the year, Hanson Aggregate will be re-commencing operations at St George, near Abergele for their aggregate production.
- 7.111 Should planning permission be granted, existing conditions relating to hours of operations for the production of limestone, for uses other than in cement manufacture would continue, as detailed above and permitted development rights would be removed on account of the proximity to the AONB, wildlife designations and to safeguard residential amenity.

## **8.00 CONCLUSION**

- 8.01 The application seeks to consolidate all of the existing consented operations and ancillary development at the quarry into a single all encompassing planning permission. Consequently, there would be no material change to the consented operations and there are no valid planning reasons why this application should be refused.
- 8.02 Should the application be refused, the operator would submit an application under the provisions of the Environment Act 1995 to review the existing conditions of the original IDO permission and the Section 106 agreement to which the operations are governed by at present. With this consolidation application, the applicant however is offering a reduction in the working area to ensure that nature conservation interests are protected. The applicant is also willing to enter into a Section 106 legal agreement to ensure that the SSSI and the SAC is managed in a co-ordinated way in one single management document. The Section 106 Management Plan would ensure that the high quality environment surrounding the quarry is managed correctly to enhance the SAC and SSSI features, as well as benefiting a number of associated habitats and species which would recolonise the quarry as natural restoration processes
- 8.03 MPPW states that it is essential for the national economy that limestone of the quality and quantity required, continues to be produced and safeguarded for future use. MPPW highlights the

specific importance of Cefn Mawr Quarry for the high purity limestone that is present; to continue to supply the cement works, thus highlighting the national importance of the extraction of limestone at Cefn Mawr specifically for cement manufacture in relation to the economy of Wales and beyond.

- 8.04 In considering this planning application the Council has acted in accordance with the Human Rights Act 1998 including Article 8 of the Convention and in a manner which is necessary in a democratic society in furtherance of the legitimate aims of the Act and the Convention.
- 8.05 In considering this application the Council has taken into account all the environmental matters that are material to the determination of this application, as set out in the Application, Supporting Statement, Environmental Statement, and the additional information requested by the Council under Regulation 19 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.
- 8.06 The Council has had regard to the derogation tests applicable to the European designated sites, species and habitats, and is satisfied that there would be no significant adverse impacts, which would be capable of negatively affecting the features of interest, range, population, or favourable conservation status.
- 8.07 In determining this application, the Council has had regard to the Policies of the Development Plan, and regional and national policy, legislation and guidance. Subject to the applicant entering into a Section 106 legal agreement to effectively cancel the existing Section 106 legal agreement, existing Section 52 agreement, and the securing the aforementioned SSSI/SAC Management Plan and, with the imposition of conditions as listed above, there is no valid planning reason why planning permission should be refused and it is recommended that planning permission should be granted.

**Contact Officer:** Hannah Parish  
**Telephone:** 01352 703253  
**Email:** [hannah.parish@flintshire.gov.uk](mailto:hannah.parish@flintshire.gov.uk)