

# Conwy Deposit Local Development Plan 2007 – 2022 (Revised edition 2011)



## REVISED BACKGROUND PAPER 29 – SUBMISSION

### Minerals

August 2012

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# **1. Introduction**

## **1.1 Overview**

- 1.1.1 Minerals are naturally occurring materials in, or on the Earth's crust. Our ability to exploit these natural resources has helped shape communities and remains of significance today, particularly in Wales. There are a variety of mineral types in the UK which are currently exploited for a wide range of uses, for example, limestone and other aggregates are used in the construction industry, coal is used for energy production, silica sand may be used in specialist industrial applications. The supply of minerals is important to the economy of Wales and Minerals Planning Policy Wales seeks to ensure an adequate supply of minerals is maintained to assist economic growth.
- 1.1.2 Mineral extraction differs from many other forms of development in that it can only take place where the mineral is found to occur. This can lead to conflict with non-mineral development and historically has resulted in the sterilisation of potentially important deposits of mineral across the UK. In order to address this conflict and avoid the loss of important mineral deposits which society may need, Planning Policy Wales requires Local Planning Authorities to safeguard potential mineral resources from other types of permanent development which would either sterilise them or hinder extraction. Since a safeguarding approach has consequences in terms of the potential to allocate land for other purposes, it is imperative that it is integrated into the development plan process.
- 1.1.3 Minerals Planning Policy Wales (MPPW) groups minerals into Energy Minerals and Non-Energy Minerals. There are no known deposits of coal in Conwy and Energy Minerals are therefore not considered further in this document. Non-Energy Minerals are grouped into Aggregates and Non-Aggregates and are discussed in turn below.
- 1.1.4 Aggregates are particles of rock or other inorganic manufactured material used for construction processes. Mineral resources which are worked directly to provide aggregates are known as primary aggregates, and include sand, gravel and crushed rock. Aggregates are not only used in constructing buildings, but also play an essential role in coastal and flood defences, providing rail ballast and surfacing

roads. Non-Aggregates may also be used in construction and include dimension stone, slate, and clay. Other Non-Aggregate minerals include industrial limestone and peat.

- 1.1.5 The Background Paper begins by introducing the local context. It then provides an overview of national and regional policies and guidance. The implications for the Local Development Plan (LDP) are discussed and the relevant policy approaches outlined

## **2. The local context**

### **2.1 Overview**

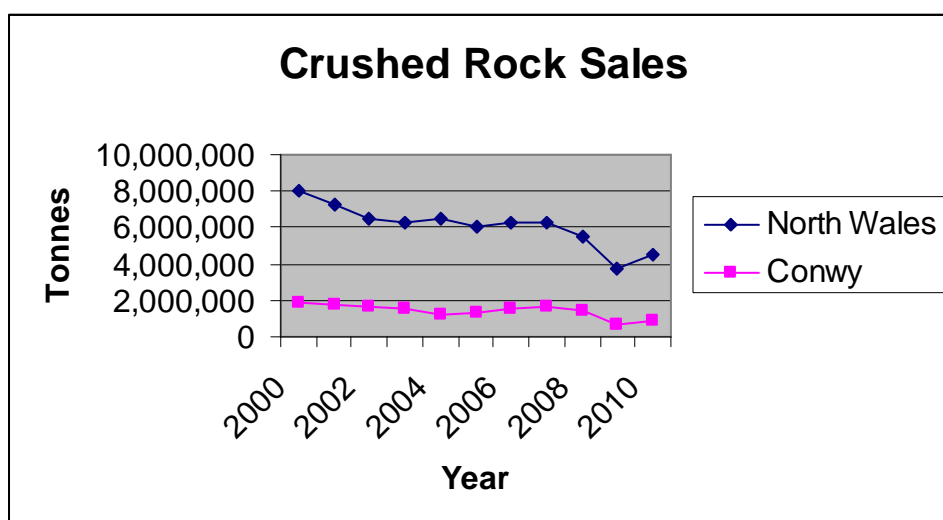
- 2.1.1 Mineral working in the LDP area has historically been concentrated along the coast, taking advantage of opportunities for sea and rail transport. The coastal area still contributes significantly to the regional production of aggregates, and is where all three of the remaining active hard rock quarries are located.
- 2.1.2 Penmaenmawr produces an igneous rock, known as micro-diorite. It is worked to provide a range of products, including roadstone, concrete, fill material and rail ballast. Penmaenmawr is the only quarry in North Wales to have its own rail loading facilities. The planning permissions extend until 2042.
- 2.1.3 Raynes is a large limestone quarry, east of Colwyn Bay. It is the only quarry in North Wales to have a working jetty, from where it ships crushed limestone for a variety of uses to the south of England and beyond. The planning permissions extend until 2028.
- 2.1.4 St George Quarry, east of Abergele, also produces limestone for a range of products. Unlike the other two active quarries, it relies entirely on road transport, and mainly serves North East Wales. The planning permission extends until 2035. Although quarrying operations have been suspended temporarily, they are expected to resume within the lifetime of the LDP.
- 2.1.5 In addition to the active quarries, the LDP area contains a significant inactive quarry at Llanddulas. Until 1997, Llanddulas was worked to provide both general quality

and high-purity limestone. A landfill site occupies most of the quarry void. However, part of the void, to the south of the landfill site, contains some remaining limestone reserves. A Section 106 agreement severely restricts quarrying operations at Llanddulas. However, this should not preclude a safeguarding approach. Like Raynes Quarry, Llanddulas was served by a jetty. However, the jetty has now been removed.

2.1.6 In addition to hard rock, Conwy also has deposits of sand and gravel and sandstone with the potential for high Polished Stone Value (PSV), which is used for its skid resistance properties in road construction. Conwy does not have permitted reserves of sand gravel or sandstone. The LDP area has historically relied on sand and gravel supplies from Gwynedd and North East Wales, and it is expected will continue to do so in the foreseeable future.

## 2.2 Hard rock sales

2.2.1 Between them, the three active quarries produce the second highest tonnage of hard rock sales of the mineral planning authority areas in North Wales. As the graph below shows, the decline in hard rock sales in Conwy over the last decade has been more gradual than for North Wales as a whole. This resilience may reflect the fact that quarries in Conwy may be less dependent on providing for particular construction contracts than some sites elsewhere in the region during the earlier part of the decade.



Source: North Wales Regional Aggregates Working Party Annual Report 2010<sup>1</sup>

<sup>1</sup> The NWRAWP use the terms crushed rock, however, MPPW uses the term hard rock.

2.2.2 The North Wales Regional Aggregates Working Party publish permitted reserves and estimate a landbank based upon those reserves and past sales. In 2010, Conwy had a landbank of 68 years for hard (crushed) rock. It is therefore evident that quarries in Conwy make a significant contribution to serving regional, and some of the national, need for aggregates, and that that contribution will continue throughout the foreseeable future.

### 3. The policy context

#### 3.1 Overview

3.1.1 The policy context is provided by:

- **National policy** is issued by the Welsh Government (WG). It includes Mineral Planning Policy Wales (MPPW), together with more detailed advice in Mineral Technical Advice Note 1 (Wales): Aggregates (MTAN1).
- **Regional policy** is prepared by the North Wales Regional Aggregates Working Party (North Wales RAWP). The RAWP issued a Regional Technical Statement (RTS) in 2009, which assesses the need for future mineral working and safeguarding in each mineral planning authority area.
- **Local policy** is currently provided by the Gwynedd Structure Plan and the Clwyd Structure Plan, which were prepared by the respective former county councils. When adopted, the LDP will supersede both Structure Plans in relation to the area of the Plan Area, that is, the area of Conwy County Borough outside of Snowdonia National Park. The LDP must have regard to national and regional policies.

#### 3.2 National policy

3.2.1 MPPW introduces the principles of ensuring supply, safeguarding, quarry buffer zones and maintenance of landbanks. MTAN1 defines the roles of the RAWPs and the RTSs. It requires that the RTS identifies the need for future aggregates provision in each mineral planning authority. Local authorities are expected to work together to reach agreement regarding non-aggregate minerals. MTAN 1 sets out the minimum landbank that should be maintained during the plan period, either within the local authority area or outside through agreement with other local planning authorities. MTAN 1 specifies that a minimum of **10 years of crushed**

**rock** and minimum **7 years of sand and gravel** should be maintained during the **entire** plan period.

3.2.2 With regard to safeguarding, MPPW states:

*“It is important that access to mineral deposits which society may need is safeguarded. This does not necessarily indicate an acceptance of working, but that the location and quality of the material is known, and that the environmental constraints associated with extraction have been considered. Areas to be safeguarded should be identified on proposals maps and policies should protect potential mineral resources from other types of permanent development which would either sterilise them or hinder extraction, or which may hinder extraction in the future as technology changes. The potential for extraction of mineral resources prior to undertaking other forms of development must be considered.”*

3.2.3 The concept of buffer zones are introduced in MPPW to help reduce conflict between mineral workings and other land uses as a result of the environmental impact of noise and dust from mineral extraction and processing and from blasting operations. MTAN 1 sets out further detail regarding buffer zones and advises that a minimum distance of 100 metres should be adopted for sand and gravel and a minimum of 200 metres should be adopted for hard rock quarries unless there are clear and justifiable reasons for reducing the distance.

### **3.3 Regional policy**

3.3.1 The North Wales Regional Technical Statement (RTS) was published in 2009 and provides apportionment guidance to local authorities regarding aggregates. The document was based upon data obtained up to and including 2005. Since the RTS was produced the market has changed and sales of aggregates in North Wales have declined significantly. Nevertheless, the RTS is still considered a robust basis to assist in the production of the LDP, particularly as landbanks have not declined in the region, and in some cases have actually increased.

3.3.2 The RTS notes that both the limestone and igneous rock deposits are very largely concentrated along coastal Conwy. The large permitted areas of both rocks are



confined to relatively small parts of this band of the county, which they share with the main coastal settlements and key communications routes.

- 3.3.3 The RTS notes that the proximity of the quarries to the coast has facilitated sea and rail transport. It considers that there is probably potential for additional transfer by rail and sea, but this would involve exporting additional quantities beyond the region. Where this could substitute for existing road borne exports, it could be regarded as relatively sustainable; the RTS notes that long-term increases would need to be assessed in the context of the proximity principle.
- 3.3.4 Away from the coast, the RTS notes that there are areas of Pre Carboniferous sandstones, often alternating with smaller igneous rock outcrops. There are also deposits of sand and gravel which have been identified in the Conwy Valley, but the RTS stated that at present provision is not possible from these materials. The RTS provides the following recommendation:

***Recommendation:***

*On the basis of the information on permitted reserves available and in the light of MTAN1 policy (para 49), and applying Method A and Method B apportionment, no rock resource allocation is required at present. However, in preparing Local Development Plans, consideration should be given to whether the factors in Box 1 (para 4.16) above give rise to any requirement for resource allocations for rock or sand and gravel.*

*Rock (mainly igneous rock and limestone) and sand and gravel resources should be safeguarded in LDPs.*

*Existing and potential wharves, rail links and railways should be identified for safeguarding in the LDP. This includes facilities, the transfer of waste slate from other areas, through Conwy.*

*Where appropriate possible measures should be taken to improve access routes between quarries and, the primary road network, and major rail or ship loading points.*

### **3.4 Local policy**

3.4.1 Both Structure Plans were prepared during the 1990s, and therefore precede MPPW. Both of the Structure Plans largely rely on criteria based policy to control mineral development and require proposals to demonstrate a need at the local, regional or national level. Both Structure Plans also make some reference to safeguarding. Policy MIN8 of the Clwyd Structure Plan states:

*“Mineral resources of regional or national importance will be safeguarded from non-mineral development in order to prevent the sterilisation of unworked resources.”*

3.4.2 By contrast, the Gwynedd Structure Plan follows a different approach in that it proposes the designation of Mineral Consultation Areas (MCAs) in which there will be a presumption against development prejudicial to the subsequent exploitation of the identified resource. The process of designating MCAs was carried out independently of the Structure Plan, and they are not identified on the key diagram.

## **4. Maintaining an adequate supply of minerals**

### **4.1 The evidence base**

4.1.1 Planning policies must be evidence-based. Matters to be considered in the evidence base include the distribution of the resource, the commercial viability of working the resource, the accessibility of resources to transport networks and the presence of physical constraints, such as settlements. Potential sources of evidence include the following:

- i) Geological maps – The Minerals Map for Wales, published by the BGS, illustrates the distribution of each resource, and includes material of intrinsic economic interest<sup>2</sup>. The information shown on the maps includes mineral resources which are inferred from available geological information, where levels of confidence regarding the quality, extent and accessibility of the resources are low.
- ii) Planning application records – The Council maintains records of planning applications for mineral working, since the introduction of the planning system

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<sup>2</sup> The Minerals Resource Map of Wales (2010) report by the British Geological Society.

in the 1940s. Planning application records vary greatly in the extent to which they contribute to the evidence base. The earliest planning applications showed little more than the lateral extent of proposed working, and typically did not provide much supporting information. As planning controls have developed, operators are expected to provide greater detail to accompany their applications, including the amount and quality of the resource. Planning application records therefore provide a useful, albeit patchy, contribution to the evidence base.

- iii) Aggregate Survey returns – The Council participates in an annual survey of aggregate producers, in which operators are asked to provide data of sales for the previous year together with an estimate of remaining reserves. The returns are forwarded to the Secretary of the RAWP and the finding presented in an annual report.
- iv) Existing research – In 2004, a report was published on *The Sand and Gravel Resources of North West Wales*<sup>3</sup> (encompassing Anglesey, Conwy, Gwynedd and the Snowdonia National Park). The report makes recommendations on the most appropriate means of ensuring an adequate supply of sand and gravel is maintained in the sub-region.
- v) Liaison with mineral operators – The British Geological Survey’s guidance for England stresses that mineral operators can provide an important contribution to the evidence base. The Council has engaged with the mineral industry at key stages in the LDP process, and also wrote to mineral operators on the 25<sup>th</sup> May 2005, inviting suggestions for the inclusion of resources within a safeguarding policy. No responses were received.

4.1.2 Whilst the evidence base currently available is incomplete, the Council considers that it provides a reasonable basis for forward planning.

4.1.3 Conwy has a number of mineral types which are of economic importance, including limestone, igneous rock, sand and gravel and sandstone each of which will be discussed in turn below. Currently only igneous rock and limestone are exploited within the LDP area.

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<sup>3</sup> Enviro Consulting plc and University of Liverpool, *The Sand and Gravel Resources of North West Wales*, 2004

## **4.2 Crushed Rock**

### **Igneous rock**

- 4.2.1 Penmaenmawr Quarry is the only active igneous rock quarry in the LDP area, and is the only substantial igneous rock resource that has been worked during the last 60 years. Most of the site operates under a planning permission granted in 1949. This permission extends to an area of 225 hectares, and includes areas shown for quarrying, tipping and processing activities. Only a small proportion of the total site area has been quarried, mostly within the area known as Pen Dinas. The Pen Dinas excavation has a total area of approximately 26 hectares.
- 4.2.2 In 1998, the Council granted planning permission for a 3 hectare extension to the Pen Dinas excavation, which had extended beyond the area of the 1949 permission. At the same time, the Council exercised its powers under the Environment Act 1995 to review the conditions of the 1949 permission. It was anticipated that, within the 15-year period covered by the review, quarrying would be restricted to the existing Pen Dinas excavation, with the possibility of some exploratory working to the west.
- 4.2.3 The 1949 permission was granted without a restriction on working depth. As any new restrictions on working rights imposed through the Environment Act review would have resulted in a prohibitive liability for compensation, the review decision does not prescribe an ultimate depth for the quarry floor. The future development of the quarry will be determined by future periodic reviews under the Environment Act.
- 4.2.4 For these reasons, a precise assessment on the extent of the permitted reserves at Penmaenmawr cannot be made. However, since only a small proportion of the permitted lateral extent of the reserves have been worked, it is reasonable to conclude that significant reserves will remain well beyond 2042.

### **Limestone**

- 4.2.5 Raynes Quarry operates predominantly under a planning permission granted in 1946. In 1993, Clwyd County Council granted planning permission for two extensions to the 1946 permission. At the same time, it exercised its powers under the Planning and Compensation Act 1991 to review the conditions of the 1946 permission.

- 4.2.6 The operator has not indicated the extent of the permitted reserves in the area of the 1946 permission. However, in the 1993 extension application, the operator indicated that the extensions would increase the reserves by a net amount of 7.25 million tonnes. The operator stated that this would extend the life of the quarry by about 7 years, assuming a production rate of 1.0 million tonnes per annum.
- 4.2.7 The areas covered by both permissions currently operate under similar sets of planning conditions. These include a requirement that no minerals shall be worked after 2028 (the two sets of conditions differ slightly as to the precise date).
- 4.2.8 In 2009, the operator submitted an application for the periodic review of conditions, pursuant to the Environment Act 1995. This application was approved in 2012 and the conditions of the periodic review will supersede the existing conditions. The conditions approved generally reflect the previous condition. With regard to the end date, the operator proposes that no development shall be carried out after 31<sup>st</sup> December 2028.
- 4.2.9 On that basis, it is reasonable to conclude that Raynes Quarry has sufficient reserves to enable working to continue throughout the LDP plan period, but that its reserves will be exhausted by around 2028.
- 4.2.10 St George Quarry now operates under a single planning permission, which was granted in 2005. The area of the 2005 permission includes land which was quarried under previous permissions, together with an 11.6 hectare extension to the south. The application was submitted in 2002, and the application documents state that the quarry was then producing around 400,000 tonnes per annum. It was anticipated that the extension would extend the lifespan of the quarry by around 30 years. The planning permission is subject to an end date of 31<sup>st</sup> December 2035.
- 4.2.11 On that basis, it is reasonable to conclude that St George Quarry has sufficient reserves to enable working to continue throughout the LDP plan period, but that its reserves will be exhausted by around 2035.

4.2.12 Of the historic quarries that are no longer working, the largest comprises Llanddulas. Llanddulas Quarry operated under a series of planning permissions, the most recent of which was granted in 1990. Since 1997, the quarry has only operated for very brief periods, principally in order to provide engineering rock and void space for the landfill site. In 2004, the owner of the mineral rights entered into a Section 106 agreement, which prohibits the removal of quarried stone from beyond the site boundary. The agreement was negotiated in the context of the called-in application for St George Quarry, and sought to redress concerns expressed by the Welsh Government that the regional landbank for hard rock at the time was excessive.

4.2.13 Collectively, the quarries identified above (excluding Llanddulas) provided permitted reserves of 67.43 million tonnes<sup>4</sup> in 2010, giving Conwy a landbank of approximately 68 years. This is far in excess of the landbank requirements identified in MTAN 1. MTAN 1 states that “*Where landbanks already provide for more than 20 years of aggregate extraction, new allocations in development plans will not be necessary.*” Further more, The RTS recommended that no resource allocation for hard rock is required. The RTS advises that consideration should be given to whether factors such as the ability to interchange one material for another, may give rise to any requirement for resource allocations.

4.2.14 In addition to limestone and igneous rock, there are deposits of sandstone with the potential for high PSV, locally known as ‘Denbigh Grits’. The deposits are sporadic, interspersed amongst peat deposits and located in areas where accessibility to markets is a potential issue. To date, there has been no pressure from the industry to exploit these deposits in Conwy, or in Denbighshire where they also occur. There are significant deposits of high PSV sandstone in South Wales which are currently exploited and exported across the UK. Given the sporadic nature of the deposits, potential issues regarding accessibility and the lack of demand to date, it is considered inappropriate to include an allocation for extraction of sandstone within the LDP. As such, no allocations for crushed rock extraction are proposed within the LDP.

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<sup>4</sup> North Wales Regional Aggregates Working Party Annual Report 2010

### **4.3 Sand and gravel**

- 4.3.1 The Mineral Resource Map of Wales shows that there are sand and gravel deposits in Conwy, including high quality deposits of national importance. There are extensive superficial sub-alluvial sand and gravel deposits in the Conwy Valley, however, these deposits are naturally located at or just above the water table and this provides considerable economic and environmental problems. Furthermore, the suitability of such deposits are questionable as they are likely to be primarily composed of silts and clays and are therefore unlikely to be suitable for mineral extraction. There are also more limited glaciofluvial and river terrace deposits along the Conwy Valley and along the coast at Colwyn Bay, much of which has been sterilised by alternative development.
- 4.3.2 A study carried out on behalf of the local authority and partners in 2003 sought to evaluate the location and volume of potentially workable resources of land-based sand in the area of Conwy, Gwynedd, Snowdonia National Park and Anglesey. The study identified a number of potential sand and gravel resource blocks, including 2 potential resource blocks in the Conwy Valley at Llanrwst and Tal-y-cafn-uchaf. However, three quarters of the resource block at Llanrwst has already been sterilised by alternative development and the resource block at Tan-y-cafn-uchaf is constrained by environmental designations, the presence of 2 scheduled ancient monuments and a number of listed buildings. Both resource blocks have limited exposure and as a result there are uncertainties in estimating the reserves. The study concluded that the majority of potential reserves in North West Wales are located in Gwynedd and that Conwy is deficient in potential reserves of possible commercial value.
- 4.3.3 The RTS did not recommend that Conwy include an allocation in its LDP for sand and gravel. In order to ensure an adequate supply of sand and gravel is maintained within the region it was recommended that Gwynedd make provision for between 1.0-1.5 Million tonnes (Mt) sand and gravel and Denbighshire make provision for approximately 1Mt. Gwynedd are at an early stage in the development of their LDP and their UDP was too far advanced to incorporate the recommendations contained within the RTS on its publication. Denbighshire, at the time of writing this report, are going through their Examination in Public. The Denbighshire LDP includes the identification a preferred area for the extraction of up to 1Mt sand and gravel.

4.3.4 To date, there has been no pressure from the industry to exploit sand and gravel in the LDP area. There are no active quarries in the area and there is little evidence of former working. There are sand and gravel resources in other North Wales authorities of better quality, which are closer to the markets, and which have been historically exploited. Such resources are within reasonable proximity of Conwy and have historically supplied demand in Conwy. It is therefore recommended that no allocation for sand and gravel is included within the LDP as there is considerable doubt as to the deliverability of any allocation, which gives rise to potential issues of blight on nearby communities. Although no allocation will be included within the LDP this will does not mean that no extraction of sand and gravel will be permitted within the LDP area should an application for extraction be made.

#### **4.4 LDP Policy approach**

4.4.1 It is considered unlikely that further planning permissions for extraction will be required, however, should the need for further extraction arise, Policy MWS 2 – Minerals will enable proposals for mineral extraction to be considered on a case by case basis, taking into account the need to maintain supply of the mineral concerned. The monitoring proposed will enable Conwy to ensure that it is continuing to contribute to the regional demand for minerals, and if it is found that it is not meeting that need, to be able to respond accordingly.

### **5. Safeguarding minerals**

#### **5.1 Overview**

5.1.1 Minerals can only be worked where they occur, whereas for other forms of development, such as housing, alternative locations may be available. The purpose of safeguarding minerals is therefore to ensure that important resources are not sterilised by development which can be suitably located elsewhere. Historically, the presence of minerals has not always been given adequate consideration during the planning determination process, resulting in the unnecessary loss of mineral. National government is trying to address this through the safeguarding requirement. A decision will then need to be taken as to whether the need to protect the resource outweighs the need for the development and vice versa. There are three steps in developing the safeguarding approach for the LDP:



**Step 1:** Identify the resources to be safeguarded (sand and gravel, limestone, igneous, sandstone)

**Step 2:** Determine whether the allocations put forward in the LDP are appropriate given the safeguarding requirements

**Step 3:** Remove settlement boundaries

## **5.2 Step 1: Determine minerals to be safeguarded**

5.2.1 The first step in the approach to safeguarding was to identify those resources which are to be safeguarded. The main information source regarding mineral resources in the County was obtained from the BGS Mineral Resource Map of Wales. The maps, which cover the whole of Wales, are published at a scale of 1:100,000 and include material of intrinsic economic interest<sup>5</sup>. The information shown on the maps includes mineral resources which are inferred from available geological information, where levels of confidence regarding the quality, extent and accessibility of the resource are low. Further investigation may therefore be necessary at the planning application stage in order to help determine whether the need to protect the resource outweighs the need for the development.

5.2.2 The maps show that there are deposits of limestone, igneous rock, sand and gravel, sandstone and peat in the LDP area. MPPW advises that peat bogs are of significant nature conservation interest and should be protected and conserved for future generations. Peat will therefore not be considered further. Limestone deposits in Conwy are carboniferous, including high purity limestone at the Great Orme. Limestone deposits have been worked historically across North East Wales and remain of economic importance today. Limestone will therefore be safeguarded. Sand and gravel deposits in Conwy vary, predominantly comprising sub-alluvium deposits, with more limited deposits of blown sand, river terrace and glaciofluvial sand and gravels, much of which have already been sterilised by alternative development. A key issue in relation to sand and gravel extraction now is the low value relative to transport costs. However, this may change over time, and as a result all sand and gravel deposits have been included within the safeguarding policy. There are relatively limited deposits of igneous rock in Conwy, outside of National Park. Igneous deposits are currently worked at Penmaenmawr, and therefore remain of economic importance in the locality. Given their limited

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<sup>5</sup> The Mineral Resource Map of Wales (2010) report by the British Geological Society

occurrence outside of the national park and their importance locally, deposits of igneous rock will be safeguarded. Deposits of high PSV sandstone, known locally as Denbigh Grits, occur sporadically in Conwy. Given the high specification of the sandstone and its limited occurrence in North Wales, deposits will be safeguarded.

5.2.3 It is anticipated that the majority of proposals which will come forward over the Plan period will be located within the Development Boundary, as identified on the proposals maps. The majority of development boundaries are already built up with existing development, and where mineral resources exist, these have effectively been sterilised. Areas which have already been sterilised have therefore not been considered during the safeguarding exercise<sup>6</sup>. New allocations have been considered in more detail below, however, the general approach taken through the LDP has been to expand existing settlements, which means that the allocations proposed are adjacent to existing development, many of which include sensitive development such as housing. The extraction of minerals in close proximity to other forms of development, particularly housing, is therefore unlikely to be acceptable due to the impact on residential and visual amenity.

### **5.3 Step 2: Review allocations**

5.3.1 The need for additional housing and employment land has been identified by the local authority and the sites put forward considered the most appropriate and likely to be delivered over the life of the LDP. Conwy is constrained by flood plain and topography and the area of land suitable for development is limited largely to the coastal area, which is where the majority of the allocations are proposed. A number of smaller allocations are identified in more rural parts of the county where the scale of proposals reflect access and topographical issues.

5.3.2 A number of allocations fall within areas of mineral resource, as indicated on the Minerals Map of Wales, and range from less than 1ha to approximately 9ha. All of the allocations which fall within the mineral resource are extensions to existing settlements which have already sterilised part of the mineral resource. The majority of the mineral resource contained within the allocations has already been sterilised by proximal development and because of the size and shape of the allocations and

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<sup>6</sup> Large scale regeneration projects can include the extraction of mineral in urban areas

their relationship with the existing urban area, the majority are considered unlikely to greatly increase the area of resource that is sterilised.

5.3.3 The relatively small size of the allocations and the proximity to existing settlements makes them unsuitable for prior extraction, particularly for crushed rock. The length of time it takes to extract crushed rock and the resultant landform means that prior extraction of limestone and igneous rock is not feasible. Whilst sand and gravel extraction can be undertaken on a smaller scale and is easier to restore compared with hard rock extraction, all the allocations are considered unsuitable either because of proximity to residential development, or proximity to other sensitive receptors. Furthermore, due to the practicalities of extracting sand and gravel and the need to remove and store a larger area of overburden, the impact on the surrounding residential areas is likely to be unacceptable, with limited benefit in terms of the quantity of sand extracted. A summary of each allocation is included in appendix 1.

5.3.4 On balance, the requirement for the allocations proposed is considered to outweigh the need to protect the resource because of the constrained nature of the County. The majority of resources within the allocations have already been sterilised and whilst extensions to the urban area will further sterilise the resource, such sterilisation will be limited to those areas which are unlikely to be suitable for mineral extraction anyway. Prior extraction is considered unsuitable because of the proximity of proposed development to existing urban areas and the likely impact on residential and visual amenity, the resultant landform and highways impacts.

#### **5.4 Step 3: Remove settlement boundaries**

5.4.1 The next step was to determine areas which should be safeguarded on the LDP proposals maps, in line with the requirements of MPPW. The mineral resource identified by the BGS for limestone, igneous rock, sandstone, sand and gravel has been shown on the proposals maps with the LDP settlement boundaries removed.

## 5.5 Safeguarding policy

5.5.1 Policy MWS/3 relates to safeguarding hard rock and sand and gravel resources. It states:

### **POLICY MWS/3 - SAFEGUARDING HARD ROCK AND SAND AND GRAVEL RESOURCES**

1. *The following resources and related facilities are included within the Safeguarded Hard Rock or Sand and Gravel designation:*
  - a) *The permitted reserves at Penmaenmawr Quarry, including processing areas, railhead and conveyor link;*
  - b) *The permitted reserves at Raynes Quarry, including processing areas and the areas occupied by the jetty and conveyor link;*
  - c) *The permitted reserves at Llanddulas Quarry (outside the area of the landfill site), including the areas occupied by the former jetty and former conveyor link;*
  - d) *The permitted reserves at St George Quarry, including processing areas;*
  - e) *Additional hard rock resources as identified on the Proposals Map.*
  - f) *Sand and Gravel resources as identified on the Proposals Map.*
  
2. *Planning permission will not be granted for any development within the Safeguarded Hard Rock or Sand and Gravel designation which could directly or indirectly harm the long-term viability of working those resources unless:*
  - a) *It can be demonstrated that the need for the development outweighs the need to protect the mineral resource; or*
  - b) *Where such development would not have a significant impact on the viability of the mineral being worked; or*
  - c) *Where the mineral is extracted prior to the development.*
  
3. *In cases where the quality and depth of safeguarded hard rock or sand and gravel resources has not been proven, other forms of development may be consistent with the safeguarding approach provided that the applicant submits evidence such as borehole samples, demonstrating that no commercially viable hard rock resources would be affected.*

5.5.2 The Proposals Map identifies the extent to which reserves in each of the above quarries is to be safeguarded. The rail facilities at Penmaenmawr are also shown within the safeguarding area.

5.5.3 The Plan Area does not contain any significant deposits of slate waste. There are extensive deposits of slate waste in Gwynedd, which could potentially be transported by rail through Conwy. Policy STR/6 safeguards rail freight facilities at Llandudno Junction, and the Council considers that this policy satisfies this aspect of the RTS.

5.5.4 Some types of development would have a nil or negligible impact on the safeguarded resource, either because they relate to a time-limited temporary use, or as they involve a relatively low degree of capital investment (such as farm tracks), or because existing development in the same location presents an equivalent or greater constraint upon the potential for mineral working. These include:

- i) householder development incidental to the enjoyment of an existing dwelling house;
- ii) infill housing development between existing dwellings;
- iii) replacement dwellings, where the existing dwelling retains a residential use right;
- iv) new agricultural buildings (including slurry pits etc) and extensions to existing agricultural buildings within an existing farmyard, or where a new agricultural building would replace an existing agricultural building on the same site;
- v) agricultural access tracks;
- vi) proposals for the temporary use of land (e.g. caravan sites, composting facilities), where a condition imposes a specific end-date on that use, and where any related operational development is to be removed upon the cessation of that use.

5.5.5 Planning applications falling outside the above categories are more likely to sterilise the safeguarded resource. These include, for example, applications for the erection of new dwellings, the conversion of non-residential buildings to dwellings and the installation of pipelines. These applications should be accompanied by evidence,

such as borehole samples, demonstrating that the development would not prevent or inhibit the working of commercially viable aggregate resources within the site or nearby.

- 5.5.6 A degree of flexibility is therefore required in the safeguarding policy. This will also allow for the fact that the evidence base used is based on inferred geological mapping and the quantity and quality of any resource present is not certain. Furthermore, in some cases, it may be feasible to extract the mineral prior to the development. The proposed safeguarding policy above includes a number of tests which if complied with would allow development to go ahead in areas subject to a safeguarding designation.

## **6. Buffer Zones**

### **6.1 Overview**

- 6.1.1 Minerals Planning Policy Wales requires Development Plans to identify buffer zones around mineral extraction sites in order to reduce the impact of existing and future mineral workings. MTAN 1 advises that hard rock quarries should have a minimum buffer of 200m and sand and gravel quarries should have a minimum buffer of 100m, unless there are clear and justifiable reasons for reducing the distances. Within the buffer, paragraph 70 of MTAN 1 states that no new sensitive development or mineral development should be approved. Sensitive development is defined as *“any building occupied by people on a regular basis and includes housing areas, hostels, meeting places, schools and hospitals where an acceptable standard of amenity should be expected”*.

### **6.2 Permitted quarries in the Plan area**

- 6.2.1 The Proposals Map designates Buffer Zones around Penmaenmawr, Raynes and St George Quarries, to ensure that non-minerals development is not permitted where it could inhibit quarrying operations. The distances used are in line with the advice contained in MTAN 1; however, it is acknowledged that there may be instances where the minimum distances are not appropriate. For example, MPPW states that *“Within the buffer zone, there should be no new mineral extraction or sensitive development, except where the site of the new development in relation to the mineral operation would be located in or on the far side of an existing built up*

*area which already encroaches into the buffer zone.”* In such cases, proposals will require careful scrutiny to ensure that their implementation does not jeopardise current or future workings. Proposals within the buffer zones will be brought to the attention of the Council’s Environmental Health Officer, the Environment Agency and the quarry operator and considered on a case by case basis.

6.2.2 Policy MWS/4 relates to quarry buffer zones and states:

**POLICY MWS/4 – QUARRY BUFFER ZONES**

There will be a presumption against inappropriate development within the quarry buffer zones.

## **7. Conclusion and recommendations**

### **7.1 LDP Recommendations**

7.1.1 The following recommendations are proposed:

- i) No allocations for mineral extraction will be included within the LDP.
- ii) That all limestone, igneous, sandstone and sand and gravel resources as shown on the proposals map will be safeguarded from inappropriate development.
- iii) The Safeguarding Rail Freight designation at Llandudno Junction shall be retained, as proposed in the deposit LDP.
- iv) Quarry buffer zones will be designated 200m from the edge of active quarries to protect the amenity of residents and other sensitive land users; to ensure that mineral operators can carry out their normal activities.

7.1.2 Within the areas to be safeguarded, all planning applications will be assessed to consider whether they could inhibit present operations or future potential for mineral working, processing or transportation. Proposals should be brought to the attention of the Council’s Environmental Health Officer, Environment Agency Wales and the quarry operators.

## 8. Glossary

Terms in bold print are identified elsewhere in the Glossary.

**Active:** Active **reserves** consist of reserves from quarries which are currently working, or have been worked in the recent past.

**Aggregates:** particles of rock or other inorganic manufactured material used for construction processes.

**Mineral planning authorities:** local authorities who are responsible for determining planning applications and developing policies on mineral working. Conwy County Borough Council is the mineral planning authority for the County Borough outside the Snowdonia National Park.

**Mineral Planning Policy Wales (MPPW):** published by the Welsh Government in 2000, MPPW provides a statement of national planning policy on minerals.

**Minerals Technical Advice Note (Wales) 1: Aggregates (MTAN1):** published by the Welsh Government in 2004, MTAN1 provides more detailed guidance on planning for aggregates, to supplement **MPPW**. MTAN1 also defines the roles of the **RAWPs** and the **RTS**.

**Primary aggregates:** minerals which are directly quarried from the ground, principally to provide aggregates. Primary aggregates are distinguished from other sources (known as secondary aggregates) which include slate waste and construction and demolition waste.

**Regional Aggregates Working Parties (RAWPs):** The North Wales RAWP is one of two bodies in Wales which are responsible for producing **Regional Technical Statements**. The RAWP includes representatives from national and local government and the minerals industry.

**Regional Technical Statements (RTS):** The RTS provides a strategic basis for aggregate provision in local development plans. The North Wales RTS was published in 2009, following approval by each **mineral planning authority**.

**Reserve:** A **resource** which has a valid planning permission for extraction.

**Resource:** A concentration or occurrence of material of intrinsic economic interest in or near the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction.



**Safeguarding:** Safeguarding policies ensure that mineral **resources** which may be needed at some time in future are not sterilised by other forms of development, such as housing, without consideration of that need. A decision to safeguard a particular mineral resource does not imply that planning permission will be granted for its working.

## **Appendix 1 – LDP Allocations affected by safeguarded mineral resources**

### **General approach for allocating in areas of mineral resource**

Given that only a relatively small area of the mineral resource will be developed during the timeframe of the LDP, a key consideration was to avoid as far as possible the sterilisation of further resources. The LDP strategy for allocating sites for development (in accordance with PPW) has been to opt for sites that are located on the edge of existing development. This approach is also favourable in terms of ensuring that mineral resource is not unduly sterilised due to presence of sensitive development such as housing. An alternative approach would have been to establish a new settlement in the open countryside. This option could potentially have had greater impact on the sterilisation of mineral resources due to the need to provide adequate buffer zones around the edge of the new settlement. This option is not being pursued.

It is apparent from the site assessment (table 1) that many sites are on the edge of existing settlements or, will be directly adjacent to LDP sites which will fall within settlement boundary once development has taken place. Given this fact, these sites are not deemed suitable for mineral extraction due to close proximity of sensitive land uses. It is noted from the table below that in some cases, contingency sites are not located within the mineral resource, however there are separate reasons why the allocated sites are on balance, more favourable. See Background Paper 21 for further detail.

When considering prior extraction of sand and gravel, a large number of LDP allocations are considered too small to make prior extraction a viable option. In some cases, because of their shape, sites are already sterilised and could not be worked due to a number of practical reasons. Other considerations which render prior extraction impractical in this case include:

- It is unknown whether there will be demand for sand and gravel resource at the time development commences
- The imposition of a condition in the development brief to extract sand/gravel could have serious implications on deliverability of a site if the resource is not extracted in the timeframe set out in the LDP.
- In areas subject to flood risk, it may not be feasible to lower the land by extracting mineral resource prior to development.

Area	Site No	Name	Size (ha)	Mineral Resource	Notes	Rationale for allocating (relating to minerals)
Glan Conwy	270	Top Llan Road	4.45 (c.1.15 ha in minerals area)	Sand and gravel	Affects southern part of the site only.	Site adjoining settlement limit and residential properties not suitable for extraction.
Rhos on Sea	71/348	Dinerth Hall Road	2.7	Limestone / Igneous / Sand and gravel		Site adjoining settlement limit (infill / rounding off of residential area) not suitable for extraction.
Llysfaen (Colwyn urban area)	496	Ty Mawr	12.64 (c.5.23 ha in minerals area)	Limestone / Igneous	Previous allocation (residential and open space) in adopted local plan.	Site adjoining settlement limit, not suitable for extraction.
Llysfaen	87	Adjoining former rectory	1.04	Limestone / Igneous		Site adjoining settlement limit, not suitable for extraction.
Llysfaen	160	Adjoining Ysgol Cynfran	1.3	Limestone / Igneous		Site adjoining settlement limit and residential properties not suitable for extraction.

Llanddulas	406	Pencoed Road	0.85	Limestone / Igneous		Site adjoining settlement limit and residential properties not suitable for extraction.
Llanddulas	403	South of Mill	0.83	Limestone / Igneous		Site in close proximity to existing settlement limit not suitable for extraction.
Abergele	81/82	North of St.George Road	8.2	Limestone / Igneous	Affects the south section only.	Site adjoining settlement limit and residential properties not suitable for extraction.
Abergele	E3	Abergele East	8.5	Limestone	Affects the south section only. Contingency site E28 North of Kinmel Manor Hotel– not within a minerals area.	Site in close proximity to existing settlement limit not suitable for extraction.
Abergele	79/80	Tandderwen Farm	9.3 (c 7.9 ha in minerals area)	Limestone	Partly outside, but mostly within the minerals area.	Site adjoining settlement limit and residential properties not suitable for extraction.
Llanrwst	287	Bryn Hyfryd, Ffordd Tan yr Ysgol	1.17 (c 1 ha in minerals)	Sand and gravel	Adjoining sites 458 and 459 are not within minerals area, but access would be	Site adjoining settlement limit and residential properties not suitable for

			area)		required via site 287 which is in a minerals area.	extraction.
Llangernyw	277	Coed Digain	1	Sand and gravel	Site mostly developed to the north, the remainder of the land represents infill between the developed area and the existing settlement limit.	Site adjoining settlement limit and residential properties not suitable for extraction.
Llangernyw	R44	Stag Yard	0.3 (small section of northern extent in minerals area)	Sand and gravel		Site adjoining settlement limit and residential properties not suitable for extraction.
Eglwysbach	60	South of Heol Martin	0.64	Sand and gravel	Site in flood risk area. SFCA completed – site is suitable subject to works.	Site adjoining residential properties and considered too small for prior extraction.
Abergele	78	Llanfair Road	3	Limestone	Contingency housing site	Site adjoining settlement limit and residential properties not suitable for extraction. Site included as contingency housing.
Penrhyn Bay	37 / 38	Derwen Lane	5.06	Igneous / Limestone	Contingency housing site	Site adjoining settlement limit and residential

						properties not suitable for extraction. Site included as contingency housing.
Penmaenmawr	135	Conwy Road	0.4 (c 0.1 ha in minerals area)	Igneous	Contingency housing site	Site adjoining settlement limit and residential properties not suitable for extraction.