

Bridgend Local Development Plan

2006-2021



Background Paper 5: Minerals

March 2011

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Background Paper Six Minerals

March 2011

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1. Introduction – Minerals in Bridgend County Borough Council

- 1.1 Minerals form the essential materials required for modern lifestyles and society and can only be extracted where they occur. Such natural materials provide for construction, infrastructure, energy generation and many other uses at local level such as sinter (ground limestone) to assist in the manufacture of steel at Port Talbot steelworks. It is therefore imperative there is a range of policies which not only provide for current and future usage but also safeguard resources for future generations to use as and when necessary.
- 1.2 In Bridgend, the minerals potentially exploitable are mainly limited to limestone, sandstone, sand and gravel and coal. Whilst licences have been granted for the exploration of oil and gas, any extraction at significant production levels is considered to be unlikely within the plan period(until 2021).
- 1.3 At present, the only mineral extraction being carried out is at two limestone quarries in the south of the Borough near South Cornelly(Cornelly and Gaens).The Margam mine opencast coal site is dormant and not operational and restoration is being pursued by both BCBC and Neath Port Talbot CBC. It should be noted that all coal operations have ceased in the area within the Borough (the site covers land in both NPTCBC and BCBC). Several coalbed methane exploratory boreholes have also been drilled within the last 10 years but no site has been brought into full production to-date. There are no sand and gravel operations in the area.

2. Welsh policy and guidance

- 2.1 Mineral Planning Policy Wales 2000 (MPPW) sets out the over-arching policy / background to mineral planning in Wales. The five key principles of sustainable mineral development are stated as: -
 - (i) to provide mineral resources to meet society's needs and to safeguard resources from sterilisation
 - (ii) to protect areas of importance of natural or built heritage
 - (iii) to limit the environmental impact of mineral extraction
 - (iv) to achieve a high standard of restoration and beneficial after use, and
 - (v) to encourage efficient and appropriate use of minerals and the re-use and recycling of suitable materials
- 2.2 Minerals Technical Advice Note 1 – Aggregates 2001 (MTAN1) outlines the Welsh Assembly Governments' advice for the extraction of aggregates in more detail including landbanks.
- 2.3 Minerals Technical Advice Note 2 – Coal (MTAN2) outlines the Welsh Assembly Governments' advice on coal extraction including coalbed methane.

3. South Wales Regional Aggregates Working Party – Regional Technical Statement (2009)

- 3.1 Bridgend is the lead authority for 18 constituent authorities in this technical working party for regional aggregate provision. The RTS (issued in 2009) has the status of a material planning consideration in the development control process. The RTS sets out a sustainable mineral planning approach to aggregate extraction. It requires each authority to safeguard resources; and carry out apportionment of future reserves if necessary so that the South Wales region has sufficient reserves to meet demand in a sustainable manner. It does, however, ensure account has been taken of all available secondary aggregates (e.g. steelworks slag and pulverised fuel ash) and also construction and demolition waste before primary aggregate is used. This should reduce and limit the amount of rock extracted within greenfield land, thereby preserving the countryside.
- 3.2 With respect to Bridgend CBC, the RTS specifically requires the authority to carry out the following actions:-
- (i) limestone and sandstone resources need to be safeguarded selectively in the LDP.
 - (ii) special provision needs to be considered and developed over the review period in respect of protection of the higher quality portions of both these materials, in terms of specific apportionment / landbanks and safeguarded areas,
- and
- (iii) land-won sand and gravel resources need to be safeguarded in the LDP.
- 3.3 For confidentiality reasons, Bridgend's landbank reserve (land with planning permission) of hard rock is linked with the Vale of Glamorgan Council. Over the next 15 years, based on existing supplies, both authorities' combined contribution would be 31 – 33mt. On a per capita basis, the figure for Bridgend CBC alone would be 15mt which can be met comfortably. However, Bridgend needs to accommodate some of the demand for the Vale of Glamorgan which does not present a problem at current outputs. This matter has been the subject of discussions with the Vale of Glamorgan Council to ensure a collaborative approach generates a sound solution in accordance with the RTS. This is confirmed in the attached letter dated 6th January, 2010 (see Appendix 1)
- 3.4 No "preferred areas" or "areas of search", as referred to in MTAN1, have been identified because the current landbank is more than sufficient to cater for demand within the plan period i.e. until 2021. This will, however, be the subject of review during the LDP Plan period

4. Safeguarding Mineral Resources

- 4.1 In line with Welsh national policy and guidance, safeguarding finite resources is essential to prevent the sterilisation of hard rock, coal, and sand/gravel for future generations. It is important to note, however, that such safeguarding does not indicate any presumption in favour of extraction. It merely prevents the sterilisation of the resource by development. Any proposals therefore would need to balance the benefits of extraction with the impact on the environment and people of Bridgend. In Bridgend, primary and secondary coal resources form a band running in an east / west direction from Pencoed in the east to Pyle in the west. The vast majority of this resource has been the subject of varying levels of extraction culminating in the last coal extraction operation at Margam mine in Pyle in 2003. Nonetheless, there are areas considered potentially workable albeit unlikely to be worked near Pencoed. These areas are shown on the Proposals Map.
- 4.2 The resources shown on the LDP Proposals Map have been defined using the new(May,2010) Mineral Resource Map of Wales produced by the BGS. Unfortunately, a complimentary Mineral Safeguarding map which was also due to be issued as part of the project, has been delayed so this data was unavailable to inform the Plan.
- 4.3 With respect to coal resources, the primary and secondary resource areas have been shown but not the tertiary layer as this consists of mainly thinly bedded seams which are unlikely to be economic to mine. Those resource areas which have already been the subject of opencast coal extraction since the 1960's have been excluded as the resource has been effectively worked out and restored to beneficial nature conservation use.
- 4.4 Those sand and gravel resources unaffected by settlement areas and international/national environmental designations have been shown but only sub alluvial inferred resources and glaciofluvial deposits which extend those areas defined in MTAN1.However,some areas of river terrace deposits have also been shown where they represent a deposit covering a reasonable surface area.
- 4.5 Where sandstone resources are shown, they exclude settlements and international/national environmental designations. Likewise, high purity limestone resources have been shown but with the same exclusions.
- 4.6 Limestone, including nationally important high purity limestone, is concentrated in an area generally south of the M4. High purity limestone is concentrated in three defined areas, namely, South Cornelly / Newton Down; Porthcawl; and Pencoed. High purity and other limestone is safeguarded in defined areas shown on the Proposals Map.
- 4.7 Sandstone underlies a large part of the northern section of the Borough running from a line drawn east to west from Mynydd-y-Gaer in the east to Mynydd Baendon in the west, to Mynydd Bach (Caerau) and Mynydd Llangeinor (Nantymoel) in the north. The upper part of the Llynfi, Garw and Ogmore

valley bottoms are excluded from the resource block as these are considered unsuitable for potential extraction.

- 4.8 A thin band of quartzite sandstone also exists in a line running east to west from Kenfig Hill to Pencoed. The majority of this resource has, however, been sterilised by development with the exception of an area where the Cefn Cribbwrr quarry (largely dormant / intermittent working) exists. Given the current and future markets for this stone and the lack of recognition of this aggregate in the Regional Technical Statement, it is not considered worthy of safeguarding.

5. Aggregates – Limestone, Sandstone, and sand and gravel

5.1 Limestone

- 5.2 There are two active quarries within 0.5km of each other in South Cornelly. Gaens Quarry is operated by an independent operator and this produces in excess of 0.2mtpa. It supplies graded aggregate and fill with some building stone. Cornelly Quarry is the largest limestone aggregate producer in South Wales. It produces high quality sinter for use in the steel making plant at Port Talbot, but also supplies graded aggregate for road construction / general construction use, concrete aggregate, and coated roadstone. It produces in excess of 1mtpa and is operated / leased by Tarmac Ltd but owned by Cambrian Stone Ltd.
- 5.3 Grove Quarry is an inactive quarry which ceased production in 2005. It is, however, capable of reactivation at any time although a Mineral Review application to approve new conditions of working is still undetermined after being called in by the WAG. This situation applies to Cornelly and Gaens quarries, but the matter is also made more complex by the fact one Periodic Review Interim Development Order (IDO) application has been submitted for Grove / Cornelly quarries which currently remains undetermined. This too has been called-in by the Welsh Assembly Government. Considerable hydro geological data / monitoring has been undertaken to try and assess the impact of quarry deepening on the nearby Kenfig SAC and water supplies in the immediate area. Such impact is being assessed but a satisfactory solution is proving difficult to achieve.
- 5.4 Stormy Down Quarry ceased production in the late 1980's and the void has become flooded to a significant depth. It is classed as a dormant quarry but reserves are minimal (less than 0.1 m) and any reactivation is considered unlikely unless it is included as part of a comprehensive quarry working programme covering Cornelly Quarry and adjoining land at Stormy Down.

5.5 Sandstone

- 5.6 Cefn Cribbwrr Quarry has been quarried intermittently since the 1970's. Historically it supplied silica sandstone to the steel industry for foundry casting for many years but this use has now ceased. In 2002, a new set of planning conditions was approved under the Mineral Review and these will control any

future working to modern environmental standards. Whilst it is inactive, the quarry is still subject to a buffer zone as shown on the Proposals Map to control any development in close proximity to it.

- 5.7 Significant sandstone resources cover the majority of the northern sector of the County Borough from Tondu northwards. This resource includes pennant sandstone of the Upper Coal Measures which has been assessed as having significant development potential for use as high specification aggregate (HSA) because of its natural durability which is valuable for road construction. It is particularly useful for road surfacing as it has high levels of skidding resistance, termed polished stone value (PSV), and also aggregate abrasion value (AAV). The quality of sandstone is, however, variable over this large area. There are also several other high HSA quarries in South Wales which are already coping with demand, which given the current economic recession, it is considered the situation is unlikely to change dramatically within the plan period. Any significant changes would be considered as part of any review of the LDP.

6. Sand and gravel

There are extensive areas of beach and dune sand in Porthcawl and Merthyr Mawr as shown on the Mineral Resource Map for Wales. But these areas are heavily constrained by European environmental designations and provide important amenity, landscape, ecology, and tourist value to the area. Any extraction proposals would not therefore be permitted in principle.

- 6.1 Other land based sand and gravel deposits have been identified in Minerals Technical Advice Note No1 (MTAN1),but there are no active sites with planning permission and the only extraction has taken place from 'chattels' in Merthyr Mawr Warren on a very intermittent basis. In MTAN1, deposits have been identified at South Cornelly, Coychurch, Pencoed, Island Farm (Bridgend) and Ewenny; reports confirm some of these deposits have been the subject of detailed investigation such as boreholes, but the results are extremely varied. The Mineral Planning Resource Map in Wales (2010) has identified additional areas where sand and gravel may be present. Hence, the areas in MTAN1 have been reviewed in the light of this new base data and the Proposals Map now shows larger areas of glaciofluvial and river terrace sand and gravel deposits where appropriate.

7. Coal and other energy minerals

- 7.1 Coal underlies the northern half of the Borough from a line drawn east to west from Pencoed to Pyle. Although the coal industry forms a significant part of the history and development of settlement in the valleys, no coal is extracted in the County Borough now. The most recent opencast coal extraction ceased in the Bridgend part of the Margam Mine site in 2003. There are no current proposals to carry out extraction, although the increase in value of coal per tonne on the world market may initiate further interest in the coal that exists under Margam Country Park. This would be carried out in the form of a drift mine which may have its entrance in Neath Port Talbot or Bridgend. Detailed

seismic surveys are underway to determine the presence of coal seams for possible exploitation in the future.

- 7.2 As referred to in paragraph 4.1 the majority of the primary / secondary resources have already been worked from the 1950's to 2003. There are areas, however, which in theory could be worked as new, or re-worked areas and these need to be safeguarded for potential future use. Such areas are shown on the Proposals Map as required by MTAN 2 -Coal, and have been identified by the British Geological Survey from published data sources available to the Council.
- 7.3 For the purposes of identifying the coal resource area on the Proposals Map, coal resources within the 500 metre buffer zone have been included because it may be possible to carry out works such as a land reclamation scheme similar to the former Maesteg Washery scheme, which can be justified on the grounds they are in the public interest. Any site specific proposals would, however, be the subject of rigorous assessment and each application would be determined on its merits. (This approach is consistent with paragraph 15 of MPPW and documents associated with MTAN 2.)
- 7.4 Justification for the retention of the rail head at Margam Mine is a matter for Neath Port Talbot CBC to consider as the facility is within their authority. Nonetheless bearing in mind the proximity of the site to local residents in Bridgend CBC its retention should be rejected because: -
 - (a) it currently serves a temporary consent which has now expired;
 - (b) it is not served by an adequate road network and is in a rural area; and
 - (c) it would prejudice the satisfactory restoration of the site.

8. Coalbed methane

- 8.1 Due to the existence of numerous coal seams coalbed methane is generated over a large area of the coal resource area. As part of the Maesteg Washery land reclamation scheme, extensive investigation and monitoring was required to ensure the safety of the new school. At Coegnant, comprehensive measures are required to release methane generated by underground sources.
- 8.2 There has been a growing interest in coalbed methane extraction in recent years. In the last 10 years, there have been more than 10 proposals for exploratory wells spread over a large area. Several of these have believed to be actually drilled but no applications for permanent extraction wells have ever been submitted. Some of the proposals have been linked to large business / commercial premises with a view to the provision of a linked supply for electricity generation.
- 8.3 Unlike coal resources, it is impossible to safeguard coalbed methane resources because of the nature of the resource. Some areas of coal may be

particularly methane rich, but supplies may be intermittent and variable in quality. They are also subject to changes in flow caused by different atmospheric pressure caused by the weather.

- 8.4 There is undoubtedly potential to extract such gas but the configuration of strata and other constraints may mean such gas is unlikely to be exploited. Any proposals for full extraction will therefore be covered by an all mineral criteria based policy rather than a spatial or topic based policy.
- 8.5 In addition to the need to obtain planning permission, oil and gas operations are regulated by a separate licensing system operated by the DTI. Licences are released in blocks and the majority of the Borough is covered by 2 such blocks. There is no expectation that drilling for oil will take place in the near future.

9. Marine sand and gravel

- 9.1 Marine sand and gravel extraction is not controlled by land based planning regulations relating to licence applications and forward development planning. These activities are determined by the Welsh Assembly Government and the Council is consulted for its views. Hence, there are no LDP policies for such marine activities.
- 9.2 The Council has raised concerns in the past over new licence applications to dredge sand and gravel from Nash Bank off the coast of Porthcawl. The principle concern has been the effects such dredging may have had on the levels of sand on the beaches which may affect tourism and ecological interests. In response to such concerns, the Welsh Assembly Government have imposed a completion date for dredging from Nash Bank in 2010. No further dredging will then take place near the Porthcawl coastline.

APPENDIX 1

Appendix 1

Date/Details: 6th January 2010
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Mr S Boo
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Dear Mr Boot

LDP Minerals: shared apportionment of hard rock reserves

Thank you for your letter of 24th December outlining the present aggregate reserves situation in BCBC's area and the current surplus in relation to the MTAN 1 requirement and following up our earlier discussion.

2006-2008 average production indicates that current permitted aggregate reserves in the Vale of Glamorgan will not be sufficient to meet the MTAN 1 requirement of a minimum 10-year landbank throughout the LDP period, although if the remaining areas allocated for extraction in the current Unitary Development Plan but not yet granted planning permission (an application for the area adjoining Wenvoe Quarry is currently undetermined) were added then that target would be closely approached. However, from informal discussions with mineral operators it appears that the 2009 figures are likely to depress the three-year average so that the target will be met on that basis.

However, it is clear that the separate RTS joint Bridgend/Vale apportionment of 31.1 – 32.9 mt in the period 2007-2022 can be achieved only by collaboration between the authorities, and I therefore welcome your formal acknowledgement that BCBC's excess reserves should be shared with this authority.

In these circumstances I therefore request formally that this course of collaborative working on aggregates minerals policy should be pursued in order to meet the requirements of both MTAN 1 and the RTS. No doubt Mr Bool and Mr Lucas will discuss the technical aspects of this approach further in the near future.

Yours sincerely,

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for Head of Planning & Transportation